



ADMIRAL - DOC WILLIAMS CAPTAIN - RITA BERG -
YEOMAN - SID WOTMAN PURSER - DAVE BOTTON

Northfield, Illinois

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Fifteen members attended. The Nautical Research Guild conference, taking place in nearby Arlington Heights this October, is considered well worthwhile, and looked forward to by all (see article, below).

MANITOWOC IN AUGUST

The annual Manitowoc-based Wisconsin Maritime Museum ship model competition will take place on the weekend of August 9, 10 and 11. Not only is the competition worth seeing (and participating in) but also the museum itself has almost been doubled in size, with extensive new construction and new exhibits. An example is that of a full-sized model of a lake steamer engine extending to three stories in the new addition!

There is to be a **Burger Boats** tour on Friday, **John Fox III** will speak, and a radio-control freak **Karl Buck** will be another featured speaker. The contest will continue through Saturday, and the banquet, Saturday evening, will feature awards and door prizes. All events will end on Sunday, ending at 3 pm with the people's choice award.

This makes for a great weekend; don't miss it.

AN APPLE A DAY

Rita Berg brought some apple wood to the meeting, free for the taking, from a recently felled tree at her place, and, not to be outdone, another apple tree is to be felled at **Kurt Van Dahm's**, along with some activity at the barbeque for those willing to flex some muscle.

NRG in 003

From October 9 to 12 the 2003 conference of the **Nautical Research Guild** takes place in the Chicago area, specifically at the **Radisson Hotel Arlington Heights**, 75 W. Algonquin Rd., Arlington Heights, Il. 60005; (847) 397-1500. The three clubs, the Deadeyes, the Midwest Shipwrights, and the Nautical Research and Model Ship Society of Chicago will host the event. There is a fine array of events, speakers and tours, and the latter include subjects, which would be of interest not only to Guild members but their spouses as well. All Deadeyes are urged to attend. The event is a special "feather in the cap" of the entire hobby, and the three clubs (**Tri-Club Association**). I will be in charge of the model exhibits at the hotel. I hope club members bring and display some of them, as the Guild needs to see how good our work actually is! We need volunteers for a variety of tasks, and if you wonder what for, we will be sure to tell you as the date looms closer!

WELCOME TIM

Tim, “Edge” Edgerton is now an official member (he finally paid up!). The traditional keel hauling ceremony was postponed to warmer weather.

SHIPS ON DECK

Doc Williams (yours, truly) brought the *Royal Louis*, now sporting the ships boats, which have undergone their final installation. These are now equipped with oars, masts, bowsprits, booms and gaffs, as well as a number of bundles of supplies and extra line. I cheated a little by using the line made on **Phil Krol’s** ropewalk during his demonstration a few months ago. Waste not, want not, right? The “Louis” is now basically ready for masting and I have a supply of degame (lemonwood) which was obtained from Gilmer’s wood supply in the Pacific Northwest. My ropewalk is under construction, very slow construction.

The *Ajax*, an English frigate by Euromodels, consisting of a near-complete hull by **Bob Evans**, is now one of my future projects, and that was also brought in and shown. The hull is on its permanent cradle, and I will complete the model and keep her as a memento of my old mentor.

Along these same lines, I have agreed to restore two of Bob’s old models, both of which are suffering from “white metal disease,” in which lead oxide has formed in some areas where lead was used to simulate iron. One of these models, the *Kate Cory*, was brought in and shown. This sparked a general discussion about Lead oxide “itis.” The following is an excerpt from the NRG web site:

<http://www.naut-res-guild.org/Reference/lead2.htm>

Cause of Lead Corrosion in Ship Models

Lead is an ancient material and has been used by man for many centuries. Many examples of antiquarian coins, underground pipes, lead roofs on medieval churches, lead coffins, and lead bullets from American Civil War battlefields attest that lead can be nearly eternal.⁽⁴⁾ But why does lead sometimes turn to formless powder on our ship models?

The chief category of substances acting harshly upon lead are organic compounds and acetic acid is among the most destructive of these carbon compounds. Acetic acid acts upon lead and transforms it into lead carbonate. Lead carbonate is the white, granular, powder we frequently see on lead ship model fittings. The museum objects conservation community has been aware of the phenomenon for several decades and the chemical process that causes it is well-understood.⁽⁵⁾

The chemical process is this: Acetic and some other acids, in the presence of carbon dioxide, catalyze with lead to produce lead acetate and lead hydroxide. Lead acetate and lead hydroxide together react with carbon dioxide and form lead carbonate. Lead carbonate then releases acetic acid and the process becomes self-sustaining.⁽⁶⁾ It is important to recognize that the formed lead carbonate is not just a substance clinging to the surface of a casting, it *is* the surface of the casting transformed to powder. For practical purposes, a portion of the lead is gone and lead carbonate is left in its place. The lead carbonate releases acetic acid

which can continue the process until the lead part is progressively consumed from the outside, inward. Acetic acid attacks not only lead, but to a lesser degree, zinc, aluminum, magnesium, brass, copper, nickel, and even steel.⁽⁷⁾

During the nineteenth century, the artificial production of lead carbonate by using the "Dutch method" was a thriving commercial enterprise in the United States and England. In order to create lead carbonate, known as *white lead*, a valuable pigment used in high-quality opaque paint, earthen pots were filled with vinegar and covered with sheet lead or with cast lead waffles. The pots were stacked and then covered with a mound of *tan* -- the bark from oak trees. The tan decomposed and heated the pots to about 180 degrees Fahrenheit. In about three months, the pots were recovered along with the dense white powder (lead carbonate) into which the lead had been transformed. In this process, carbon dioxide was in the air and was also formed as the tan decomposed. Acetic acid came from the vinegar (usually about 3 to 5 percent acetic acid and about 95 to 97 percent water) and from the oak bark. Heat generated by the decomposing bark accelerated the process.⁽⁸⁾

Air circulation is felt advisable. Article (white lead disease); look for an article in the NRG web site. Impurities are the cause, and others include acid from woods, and/or cyano glue.

Solving the Problem

Treatment of Corroding Lead Parts

The fact that lead carbonate combines with carbon dioxide to form acetic acid demands that lead carbonate powder frequently be removed from the surfaces of affected castings and from inside the exhibit case or storage crate environment. We have found that brushing off the corrosive byproducts and repainting the affected fittings only serve as a temporary and cosmetic repair. The parts will begin to bloom again if they remain within the same acid-laden micro-environment. A variety of paints, clear coatings, cyanoacrylate glues, and even automobile battery terminal paint have been tried with no appreciable abatement found.⁽²⁴⁾ Indeed, many of these coatings may actually contribute to the problem.

One treatment that was suggested on the Internet to modelers was to wash parts in vinegar to neutralize the lead carbonate. While this treatment may facilitate cleaning the affected parts, obviously the vinegar wash itself may attack the lead until it is neutralized by liberally rinsing it in water. Thorough removal of lead carbonate from within the model's micro-environment is recommended, but we would suggest simply brushing it away.⁽²⁵⁾ Although basic lead carbonate does not dissolve in water, mechanically rinsing corroded parts in running water would be preferable to applying more acetic acid to the piece. Wear a respirator when disturbing dry lead carbonate dust and be sure to wash your hands after handling lead fittings or lead corrosion byproducts.

The Gibbs & Cox Company ship model builders (1939 - about 1962) employed some lead castings and lead-based solder in their exquisite models. They chose to electroplate those fittings with a thin

layer of copper, thereby effectively sealing the casting surface from the atmosphere. Time has confirmed that electroplating is a good way to prevent lead corrosion. There are two drawbacks to electroplating. Some superfine relief detail may be lost, and the process is somewhat complicated and fraught with safety, health, and environmental hazards.

Many model builders simply do not use lead fittings in new models and replace lead fittings on old models with duplicates made from a more durable metal. While brass, bronze, or copper is suitable, britannia metal, which is usually composed of 89 percent tin, 7.5 percent antimony, and 3.5 percent copper, is frequently used to replace lead because it is easy to cast. Replacement is a way around the problem for hobbyists. However, for museums the wholesale substitution of new fittings for old would, or should, present a dilemma in conservational ethics.

There appears to be no known product currently available which can be applied to lead fittings to render them fully impervious to acetic acid.⁽²⁶⁾ Other than electroplating fittings or replacing them with more durable castings, probably the best way to prevent lead corrosion is to isolate ship models from sources of acids.

Ray Oswald brought his pilot boat, now complete except for shrouds and flag. Ray said that sails can be tricky in for and aft rigged models. Sails were said to be “loose-footed,” that is to say, only tried down in the corners. Blocks are Britannia metal, which has been painted, then finished with water-based varnish

(Jo Sonya). The **Marty Meyer** “Mo-ropé” was used, which is polyester. It is totally fuzz free, and easy to use, except for forming coils, which is difficult. The line tends to unravel, but it can be slightly heated with an iron, and that sets it. The sails are velum paper, which is shaped using an iron before being mounted on the model. Ray used water-based polyurethane before mounting the sails, and this helped it to maintain its shape.

Kurt Van Dahm brought his *Lively*, now with one side planked and the other planked partially. The stern was a problem at first because of the angle of the bulkheads, but more recently the tailboard is a little short and didn’t want to fit. He had to make another piece, and used the same source material as the original.

Kurt also brought in a solid carved *Prince de Nuef Chatel*. The modeler who did this was advised (indeed ordered) to stop modeling and do something else (such as disarming bombs) because it was such a stressful job. This is cut from a solid block of wood, and is essentially perfect. The bulwarks are consistent enough in thickness to be perfect when measured with a caliper!

Sid Wotman showed that the lower masts on the *Charles W. Morgan* are built, and he is ready to add the spanker boom and gaff to the mizzen. All masts will ultimately be white.

Phil Krol brought in his Swan-class “Nymph.” The model is in the early stages of construction and is part of the David Ansherl practicum. He has the keel, sternpost, stem and deadwood in place, and is working on the wing

transom in preparation for the cant frames, which in this realistic technique is done first. All is built in the exact manner of the original ship, complete with each frame and its individual futtock joint. Several possible ships may be built in this practicum, and Phil's reason for choosing this one is that he (so far) is the only modeler building this particular ship.

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RARE FINDS!

Pat Evans, widow of the long-time Deadeye, **Bob Evans** (and my personal mentor) has discovered a few very interesting items, which she wishes to sell. She wrote the following list, which I will retype, and then take the initiative to make further comment upon—yes I will!

1. USS Cairo – Eads Civil War gunboat. LOA: 43 ¾" and beam: 12 ¾". Hull scratch-built, decks started, some data included. Make an offer or contact Doc Williams to see.

2. Midwest Kit #975. Pro Series plank on frame. Endeavour I Challenger, 1934 America's Cup. Hull built and primed. \$75.

3. Model Shipways Fair America wooden shipmodel kit. Hull formed, deck planked and hull planking begun. \$100.

4. Colonial Schooners Kit, Sir Edward Hawke, 1767. Plank on solid hull; 3/16": 1', LOA:20 ¾". \$50.

5. Dremel Scroll Saw, Model 1371 Type 1410 blade. \$75.

Editorial comment:

The Cairo is a scratch-built effort, which was designed by Bob as an effort to show part of the interior and contents by leaving certain areas unplanked. The ship is incomplete as such but could be a springboard to a very interesting project for the right modeler/civil war nut!

TALL SHIPS ON THE WAY

From July 30 to August 4 "Tall Ships Chicago 2003" will take place. The event will be located on the Chicago lakefront, riverfront and Navy Pier. For detailed coverage of this event, see the website:

222.tallshipschicago.com

PEARWOOD GALORE!

Back in January 2003, **Kurt Van Dahm** received a letter from **John Thompson**, and old ship modeler, and former

member of both the Deadeyes and the Nautical Research and Model Ship Society of Chicago. Several years ago he obtained a large amount of valuable pearwood, so-called "Pfizer" pear, which is denser than most pear wood, and which, when oiled, takes on a beautiful medium brown color. This wood is to be distributed to the members of the Triclub Association, and it befalls my lot to administer all twelve logs!

I have a large band saw (20" Inca), with which I can cut the logs into rough billets. I will do this, a little at a time, and bring these to the various club meetings, Deadeyes, Shipwrights, and Nautical Research Society, where they will be yours for the taking. This wood is exceptional, and usable for virtually any operation in shipbuilding. Look for the pile at the next meeting (that is, that which I haven't already stolen!).

I asked John if we could persuade him to come to one of our meetings, but alas, he has apparently been cured of the ship modeling virus. Most unusual! Incomprehensible!

FUTURE MEETING TOPICS

July 2003-Doc Williams will present a videotape of a four-masted barque rounding the horn in the 1920's. The famous Captain Johnson appears in the amateur-made film as a young man, and narrates the tape as an older man. This is a fascinating account, and one of the only on record of a square-rigged sailing ship during this notoriously difficult voyage.

August 2003 – Favorite tool night. Bring one or two favorite tools, not necessarily sophisticated ones, just something you find indispensable; you

never know what someone else may learn from you, or the reverse if you get lucky!

September 2003 – To be announced.

October 2003 Michael Lee Hunter will describe his recent research on Coast Guard vessels in the European theater during World War II.

November 2003 Bob Filipowski will demonstrate and describe the technique of blackening metal, emphasizing materials, hazards, pitfalls and results.

Future Meetings

7:30 P.M.

Wednesday July 2, 2003

Wednesday August 6, 2003

Wednesday September 2, 2003

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