



# Season's Greetings!

**Wishing everyone a Merry Christmas, Happy Hanukkah, Winter Solstice or Kwanzaa.**

May the holiday season fill your home with joy, your heart with love, and your life with laughter.

## **CLUB NEWS**

We are presently conducting a **ROLL CALL** via email. Multiple notices have been sent. We need to confirm your willingness to be a member and remain on the mailing list and continue to receive our emails and newsletters. We also need to confirm which members are Nautical Research Guild (NRG) members as we need to maintain a minimum number to keep our club charter. Please respond to the Roll Call via return email as soon as you can.

**Those that do not respond by 15 December will be removed from the membership list.**

*We presently have the following confirmed seventy-three (73) members:*

David Amstutz, David Antscherl, Gökhan Arican, Alan Barraclough, Robert Bearne, Ron Beuparlant, Darrel Bedford, Michael Best, Jeff Betcher, Kirk Binns, John Brackett, John Brent, Gary Brokenshire, Ron Campbell, Lee Chan, Robin Coles, John Cork, David Cramton, Stephen Deppisch, James Dockrill, Mike Draper, Lawrence Eady, Robert Erhard, Jared Fein, Dennis Finegan, John Garnish, Hugh Gilliland, Andrew Henwood, Greg Herbert, McAllister Horne, Mark Izzard, Rod Johnston, Ronald Kennedy, Kevin Kenny, Shelby Korman, Gabe Kraljevic, Raymond Kroschel, Robert Langlois, Bruce LeCren, Gordon Leek, Charles Legge, Mark Lindsey, Joe Lorenzo, Myles MacInnes, Don Mackay, Philip Main, Wayne Marquette, Bruce Martin, Daniel McKelvie, John McKeown, Ian McLaughlan, Tim Morrison, David Nelson, Sally Nye, Alan O'Neill, Dave Overholt, Ray Peacock, Pat Portelli, Robert Reinhart, Dale Rex, Greg Riach, Dave Rogozinski, Ralf Schurbusch, Bill Short, Brian Shreeve, Gerry Stanley, Morton Stoll, Maury Stuffmann, Tijs Theijsmeyer, Ronald Thibault, David Tozer, Kurt Van Dahm, and Derek White.

## **ANNOUNCEMENTS**

1. Most of the earlier donated **ships plans and all magazines** have been claimed by MSON members. Those few plans that remained were brought to the November meeting and all but eight were taken by attendees. These were listed on a page on the club website and we are happy to announce they have all been quickly snatched up!

2. We have added a **USEFUL LINKS** page to our website. If members have a favourite site other modellers might benefit knowing about please send us the link.

## **MEETING ATTENDANCE**

36 people attended our meeting! 24 of the 32 members registered for the ZOOM meeting were able to attend and 11 of the 14 local members that said they would attend were present.

## **MEETING PRESENTERS NEEDED**

Thank you to all that stepped up to get on the schedule for this season... but we are not in deep water yet. We need presentations for April (2), May (1) and June (1) as you can see below. Everyone has something others would like to hear about and see. A model, technique, tool, etc. Time to take stock of what you're sitting on and let it shine for the rest of us. Send us an email to get on the program.

We have the following presentations scheduled:





<b>2024</b> <b>Sunday at 1:30 PM ET (Toronto)</b>	January	14	Hybrid Meeting	1) Painting Techniques and Tips by Daniel McKelvie 2) Pond Yachts by Wayne Marquette
	February	11		1) Sir S.L.Tilley - Great Lakes Steamer of 1884 by Tim Morrison 2) Sailing on the Star of India by Mike Draper
	March	10		1) The Schooner Albatros - 1:100 scale kit build by Andrew Henwood 2) WWI U-boat Operations in Canadian Waters by Kirk Binns
	April	14		1) 2)
	May	19		1) HMS Alert Build Update by Daniel McKelvie 2)
	June	9		1) Converting the Monograph of L'Egytienne for CNC Machining and 3D Printing by Greg Riach (To Be Confirmed) 2)
	July	...	<b>SUMMER HIATUS</b>	
	August	...		

## Notice to all members...

**If you attend meetings via ZOOM or never attend a meeting at all:** We ask members to submit a few images of the progress on the model you are presently working on for the **"On the Workbench"** segment of our meetings. Please provide a short description to go with the images, including the vessel name, scale, and work being performed. We can present your images on your behalf if you wish and then open the forum to questions for you to answer. If you are not at the meeting, the questions will be emailed to you and your responses emailed to all members.

**If you attend meetings F2F (Face to Face) in NOTL:** We ask you to consider bringing your model to the meeting to show everyone what you are working on or have completed. Email us to let us know so we can check there won't be too many **"On the Workbench"** showings (wouldn't that be a terrible dilemma!!)

## MAIN PRESENTATIONS

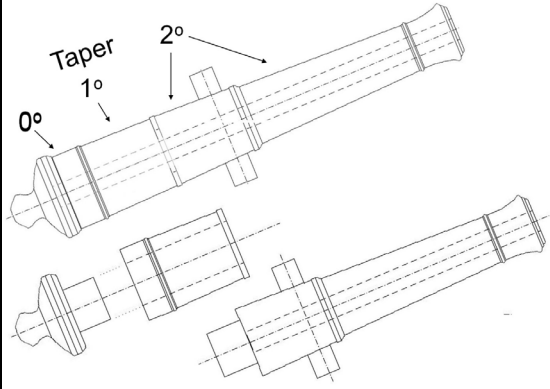
**1) John Garnish** explained how he made the **guns and crew** for his War of 1812 British Gunboat **Caustic** at 1:36 scale. She was basically a 62 foot long lugger rigged rowing barge built on Lake Champlain. She had three 9 foot long (3 inches on the model) standard Blomfield 24 pound long guns (cannons) mounted on wooden troughs that could be rotated 360° on circular tracks. The field of fire was severely limited by the masts and rigging.



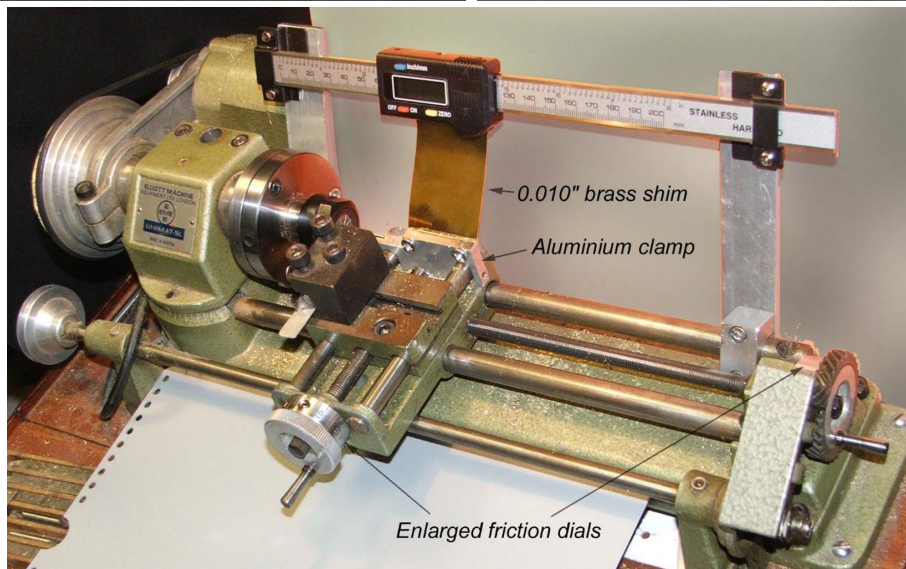
Machining the gun shape was a challenge to hold securely in the lathe so John broke it into three parts creating short parallel sections in each that he could grip. John enlarged his drawing ten times and traced the muzzle and breech moldings onto graph paper to allow accurate measurement.







He used his more than 70 year old modified Myford metal lathe to cut the shapes into aluminium stock for the barrel and silver steel (*aka* tool steel) for the trunnion. His lathe has digital readouts added to both X and Y axes to avoid "mental gymnastics". A capacitive linear scale from China was added for the X axis (left/right feed) and enlarged dial markings drums added on both handwheels allowing a 0.05mm (0.002 inch) repeatable accuracy.



John likes to add figures to his models to give a sense of scale and modifies commercially sourced figures for the job. He showed a Revell set of a German WW2 tank maintenance crew that he modified into Royal Naval crewmen and a Lieutenant. The material is believed to be styrene which is easy to carve.





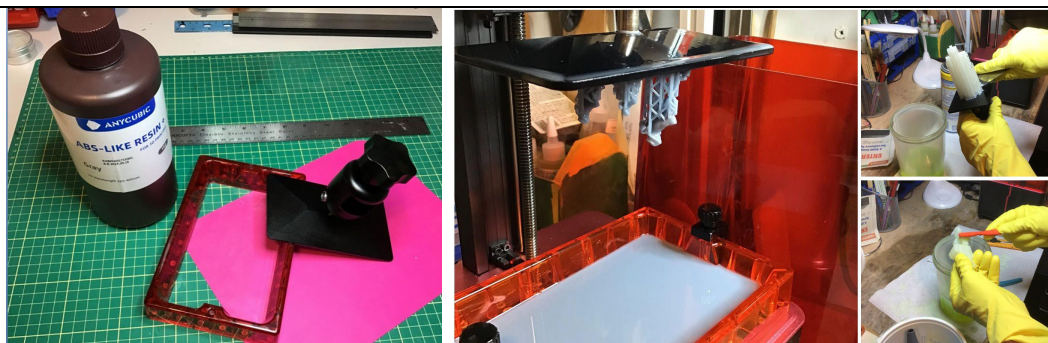
The Lieutenant, made from the tank Commander figure, needed the trousers pared down, and the pistol, insignia and pockets removed. The boots were reshaped and a collar and coat tails added using foil from a wine bottle and Milliput two-part epoxy putty. The figure's right arm was removed and repositioned. The various crewmen required cutting away pockets and such, plus shaving off the shoes and carving bare feet in what was left!

**2) Gabe Kraljevic** gave us a presentation on **3D (SLA) Resin Printing** and some necessary accessories. He began by explaining the differences between the two types of printers used in 3D printing. The **FDM** (fused deposition modelling) printer uses plastic filament that melts in a heated nozzle and extrudes like a hot glue gun onto a build plate, depositing layers and building the model upwards. The **SLA** (stereo lithography) printer uses liquid resins creating the model with a dipping action into a bath that hardens with UV (ultraviolet) light, building the model from the top down on the build plate hung upside. The FDM has a build resolution of 0.12mm (0.005") whereas the SLA printer has a much better 0.03mm (0.001") resolution.

He originally thought all he needed was to load a 3D file and pick print. In actuality the file needs to be prepared to be read by the printer, and several parameters need to be set like being supported with a "gantry" to prevent sagging as the print is not completely cured when done. This is done with free slicing software like **Lychee** (aka **Chitubox**). Once printed it needs to be cleaned, supports removed, cleaned again, dried, and cured.







Above: printing and cleaning



Above: trimming supports, U/V hardening, wash and cure station

Gabe explained 3D model files could be sourced on the internet, and many are free. Some sites include:

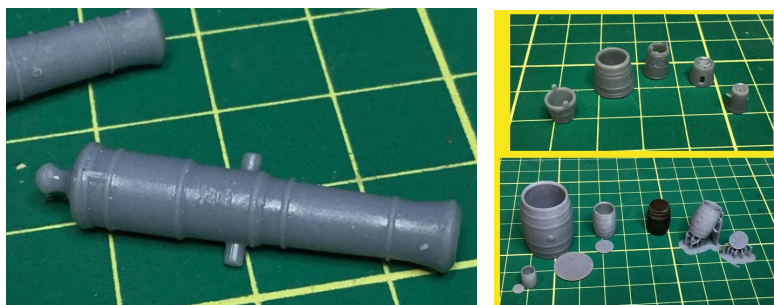
**FREE:** <https://www.thingiverse.com/> <https://www.printables.com/> <https://thangs.com/>

**FREE and PAY:** <https://www.myminifactory.com/> <https://www.cgtrader.com/>

He admits it is rare to find exactly what you want unless you can find it on the **Model Ship World Forum** at <https://modelshipworld.com/>. The other option is to create your own 3D model, but you need 3D software to do that, and it must be exported as a **.STL** (standard tessellation language) extension type file.

**TinkerCAD** was the first 3D modelling software he used. Being web based there was no software to download and install. You just log on and start. Having been created for school children to learn the basics of computer aided design it is a great tool to learn with. He has since progressed to **Fusion 360**, a more professional 3D modelling program that offers a free annually renewable license for hobbyists. There are endless reference tutorials on the internet so if the learning curve gets to be a bit steep after a quick search you have a video showing how it is done.

Gabe went on to show us samples of various ship parts he has printed...

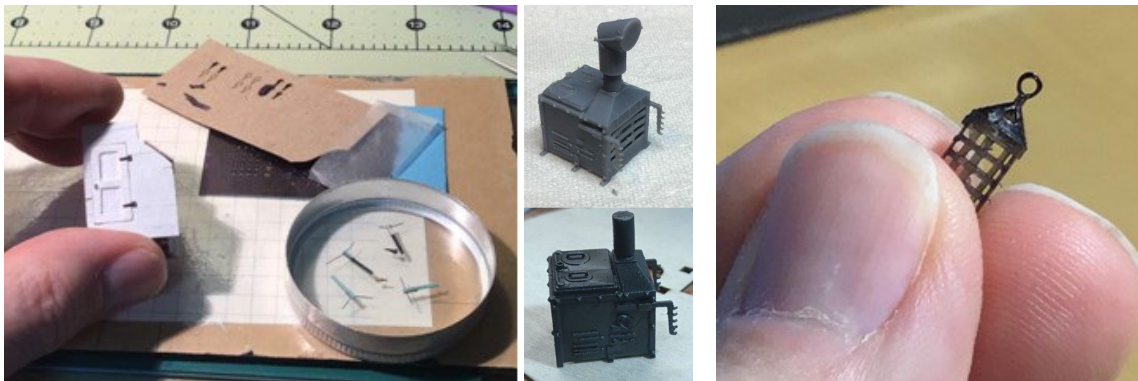


Above: 6 Pdr cannon on the left and various buckets and barrels on the right





Above: Iron ballast on the left of the cross-section model and barrels to the right



Above: Hinges on the left, Brodie stove (1:64 scale) centre, and a lantern on the right

Painting miniature figures has been a lifelong hobby of Gabe's and was one of the reasons he got into 3D printing. Adding figures to a model creates incredible perspective to the build. 3D models can be found at the sites mentioned earlier plus a couple other pay sites: <https://www.cgtrader.com/> and <https://www.wargaming3d.com/>

Finding the correct period figures can be difficult so he creates his own by visiting: <https://www.heroforge.com/>, <https://titancraft.com/> or <https://creator.eldritch-foundry.com/> however they can look cartoonish. Gabe intends to start using the free program **Blender** to create his own figures soon. The following are some of his printed and painted figures...







Gabe completed his presentation by showing us a 1:1000 scale 3D Resin printed Porcupine class frigate and four of her small boats...



### Coincidence?

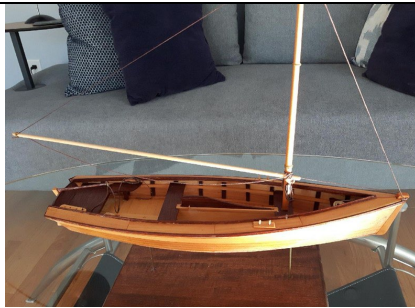
Did anyone notice the **Nonsuch** was in the ZOOM background of two attendees? John Garnish (England) had his model behind him while Gabe Kraljevic (Manitoba) had a drawing of the ship on display.

**3) Kirk Binns** presented a **short introduction to scratch building**. The first image (below left) shown was a Chesapeake Bay Worcester boat with a retractable keel (centre board), flat sided (carvel) planked with easy to build frames and rigging. More complex builds require some considerations...

- a)** You really have to like the subject you are choosing to build. If you lose interest in the subject the love is gone and things slow down to a point it will be incomplete and collecting dust on a shelf, forgotten.
- b)** You must give the build scale adequate consideration - where will it be displayed? Is it being gifted and where will they display it? As Kirk is running out of space at his home, a smaller scale is now his best choice.
- c)** Are plans available and adequate? Where will you get them from?
- d)** Will you be using commercially sourced fittings or making your own? Kirk is not a purist and loves to use commercial fittings.
- e)** What materials do you need? Do you have the lumber?

**Kit bashing** is taking parts from one kit to use in another. The second image (below right) is a Baltimore style clipper ship, scratch built hull and kit bashed deck furniture. He started with a kit of the USRC (Revenue Cutter) Jefferson Davis and added parts from the internet. He added a carronade amidships, relocated the steerage and added the breakwater up front for rough seas.





*Chesapeake Bay Worcester Boat*



*Baltimore Style Clipper Ship*

For the last 15 years Kirk has been studying ships of the Spanish-American war. The USS Olympia seen below could easily be scratch built (parts made by you) and many parts could be made with a 3D printer. Many of the ships of this era were similar. The cruisers Atlanta, Boston, Chicago and Dolphin all had the same hull.



*USS Olympia*

If Kirk were to make the USS Boston he had to decide how he would make the hull. Would it be **solid** or carved hull from one block of wood, or **plank on bulkhead** using a false keel and bulkhead base and adding outer planking or faux metal sheet over it. Would it be **bread and butter** vertically stacked layers or slices of wood cut to the shapes of various elevations or waterlines and then carved to blend the shapes, or **plank on frame** which is more suitable for a traditional period wooden ship build rather than a metal hull type.

Below are some scratch built bread and butter style half hulls Kirk has completed. The bottom one is a Maine Friendship sloop (1900), the middle is a Herreschoff sloop "Shadow" (1871) and at the top is a 688 Los-Angeles class Attack Boat (submarine).



While at **The Wooden Boat School**, Kirk built a test hull of the **USS Boston** at 1:92 scale (below) to see how it would turn out. He wanted something simple and that he cared about. He got his plans at: [ebay.com/usr/davesdrydock](https://www.ebay.com/usr/davesdrydock)



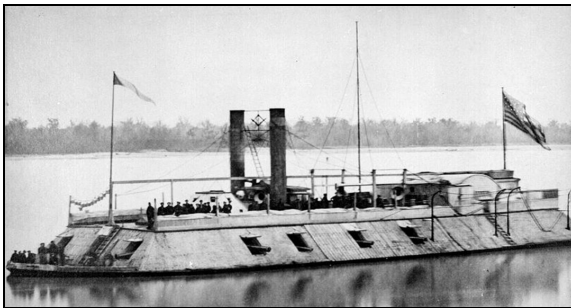




*USS Boston*

**4) Bruce LeCren gave a presentation of the American civil war ironclad USS Cairo he had visited this summer.**

In 1861 the USN had no ironclad warships but most wooden warships were loyal to the Union. The Confederacy decided to buy or build them to even out the numbers. In response the USN began building two styles, the Monitor class with one or two revolving turrets, and the City class with a fixed casement for use on major inland waterways, the Ohio and Mississippi Rivers, soon became known as *the brown water navy*.



*USS Cairo 1862*



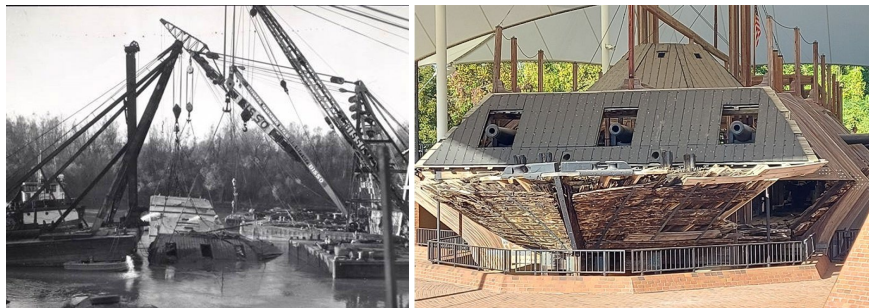
*Under Construction at Eads' Yard, St. Louis*

General McClellan had Commander John Rodgers prepare the orders to supply the boats. Shipbuilder James Eads was given a contract and Samuel Pook who was experienced in river craft design was enlisted to help. The boats had to have adequate armour to withstand a direct shot, sufficient speed to move against the current, a shallow draft, and enough guns to present a serious and credible threat to the enemy. Pook designed a 175 foot long 51 ft 2 inch beam 880 ton loaded vessel with only 6 feet of draft while carrying 13 guns. Six 32 Pdrs, three 8 inch Dahlgren smooth bore cannons and four 42 Pdr rifled barrel army guns. Three faced forward, four on each beam and two faced aft. Some also carried 12 pound howitzers to repel boarders. They had 2-1/2" casement armour with a speed of 8 knots. It would have three keels with the centre length shorter than the outer two. A single 22 foot paddle wheel aft driven by two steam engines, five boilers, and accommodations for a crew of 250 men. Steering was via a single cable operated rudder. Due to their look with sloping sides they were nick-named "Pook's Turtles". Eads was challenged to deliver seven boats within 100 days or face a penalty of \$200 per day they were late.





The engines were designed by Thomas Merritt. They were mounted at opposite ends of the axle, 90° apart to assure the wheel would start turning when steam was admitted to the cylinders. The 36" diameter x 24 foot long boilers were crowded into the shallow hold causing the engines to take in water and steam so one long steam drum was mounted transversely across the top as the remedy. There were no condensers provided so as to create a low pressure forced draft through the fireboxes. Waste water splashing off the paddle wheel was used to cool the interior of the boat, provide a shower and wash down the heads.



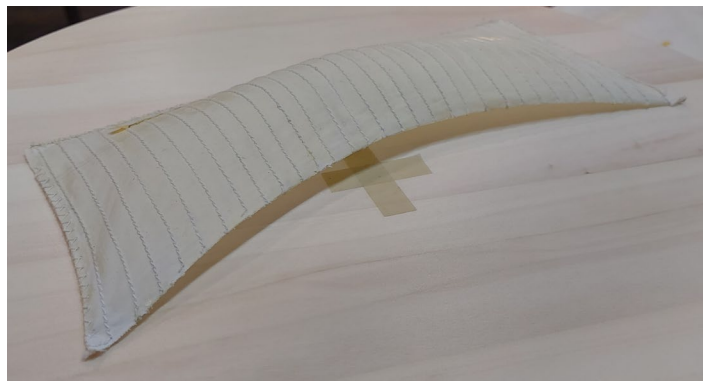
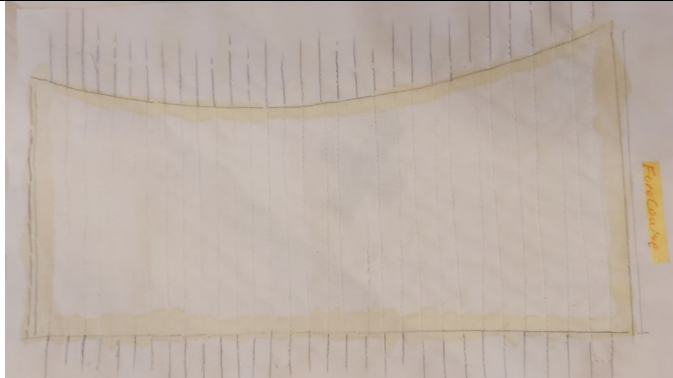
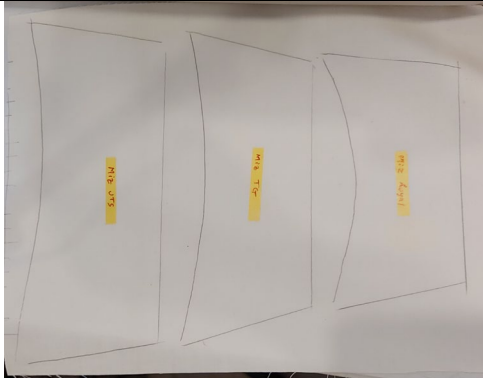
The USS Cairo participated in the occupations of Clarksville and Nashville, Tennessee and escorted mortar boats for the attack of Fort Pillow. She fought off Confederate gunboats at Plum Point Bend in May 1862 and helped defeat eight Confederate gunboats off Memphis, and the occupation of the city that followed. She patrolled the Mississippi River until late November 1862 when she joined the Yazoo Pass expedition. She was sunk by naval mines and Confederate batteries in that conflict. Struck by two torpedoes electronically detonated from shore about 7 miles (11 km) north of Vicksburg. She would be raised by Edwin Bearss almost two hundred years later and her remains are on display at her permanent home at the **Vicksburg Military Park**.

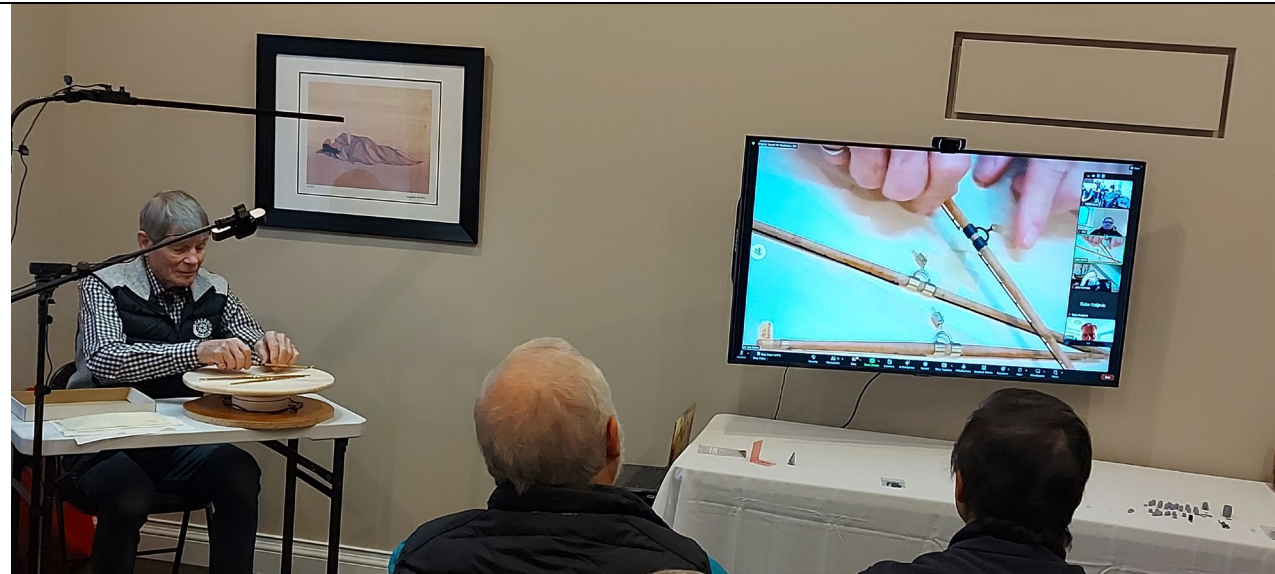
**Design Problems:** 1) The weakest point was the hull as there was no armour below the waterline. 2) The deck and stern were unarmoured exposing the steering cables. 3) Escaping steam from damaged boilers was a serious problem for the crew. 4) The three keel construction and confined paddlewheel created steering difficulties and they could not be backed against the current.

**5) David Cramton** ended the meeting by showing us his process for making a square sail and some of the yards he'd made for his model of the Cutty Sark. Dave used bed sheet material and he traced his sail outlines onto them: the mizzen sails, the royal and top gallant, and the upper top sail. His next step was to vertically stitch the equivalent of the panels using a sewing machine. He then paints a diluted mixture of white PVA glue and water around the perimeter to stiffen the sails. He then lays the bolt roper around the edge of the sail and glues it in position. A zigzag sewing machine stitch holds the bolt rope to the sail material. After this, the rest of the sail received a wash of diluted white glue and water. He then hung the sail in a picture frame with paper clips holding the four corners then loaded the sail with sand until he got the billowing effect of wind in the sail. He then showed us his fore, main and mizzen course yards.



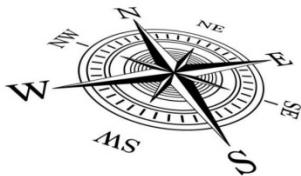






**That concluded our presentations and monthly meeting.**

A special thank you to all members that have stepped up to present and add to our meeting content.  
It is your participation that makes this club successful and helpful to others.



*The MSON  
Helping to keep fellow modellers  
on course since 2008*

Our next meeting will be held on **Sunday, 14 January 2023**  
Forum opens at 1:15 PM Eastern Time for a 1:30 PM Eastern Time start

**This will be a HYBRID meeting.**

Local members can meet face to face (F2F) on site in NOTL.

Those not able to attend F2F can do so via ZOOM.

As always meetings and membership are open to all and are free!

Notices will be e-mailed.

**The upcoming November meeting presentations:**

- **Painting Techniques and Tips** - by *Daniel McKelvie*
  - **Pond Yachts** - by *Wayne Marriette*
- On The Workbench (members build progress update reports)

**Have you anything you would like to share at a meeting?**

If so please send us an email: [Modelshipwrightsofniagara@gmail.com](mailto:Modelshipwrightsofniagara@gmail.com)

