

June 2019

Volume 41 Issue 6



The Binnacle

Victoria Model Boats
Victoria, B.C.



Victoria Model
Shipbuilding Society



Ken Lockley on Len Gibbs'
model of the tug Heatherton.

The Clinker Tradition
Edward White.





**From
The Bridge**

Hello Everyone,

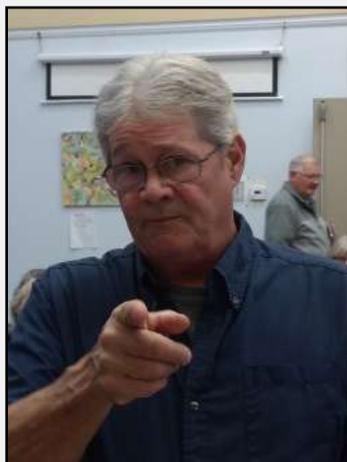
Well the Point Hope Shipyard event had all the potential to be an awesome day. We had an amazing spot, a great turnout of high quality models, and lots of help, thank you to everyone involved!

It should have been great, but the weather decided otherwise. This added a lot to the work involved in taking the display down and getting our stuff back in storage, I am again very grateful to everyone who helped out.

I very much hope we will get invited back again for next year.

We have more events coming up over the next few months, we will keep everyone informed. Remember that you yourselves are the main event at our meeting this Thursday, and bring something for show and tell if at all possible!

Mike Bush.



2019 Executive Committee

<i>President: Mike Bush</i>	418-5527
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<i>Parks Liaison: Mike Claxton</i>	479-6367
<i>Sailing Director: Peter Stevens</i>	656-8999
<i>Membership: Bev Andrews</i>	479-2761
<i>Facebook: Rick Gonder</i>	744-8610
<i>All above area code (250)</i>	



ON THE RADAR

Upcoming Events

July 13th. CFB Esquimalt Museum Open Day.

Labour Day Weekend. Saanich Fair.



Meetings: Second Thursday 7:30-9:30
St. Peter's Anglican Church, Lakehill
3939 St. Peter's Road
Upcoming meeting: June 13th.



POWER: Sundays 10-12
Harrison Model Yacht Pond (HMYP)
Dallas Road at Government Street



SAILING: 1st. and 3rd. Sundays
Beaver Lake



LANGFORD LAKE
Wednesdays 9:30
Langford Lake, Leigh Rd. at Trillium



**VICTORIA MODEL SHIPBUILDING SOCIETY
GENERAL MEETING MINUTES
MAY 9TH 2019**

1

MEETING CALLED TO ORDER AT 7:35 PM

2

Welcome to guests

3

Director's and sub-committee reports

HEALTH AND WELFARE-

Barry Fox

FINANCE – REPORTED TO MEMBERSHIP BY THE TREASURER

VMSS Swap Meet - \$120

Membership – 48 Members paid dues and increase over 2018

SHOWS AND EVENTS

APRIL 11, 2019

VMSS SWAP MEET

APRIL 12-14 2019

NANAIMO SHOW – Country Club Mall

Bowen Road / Norwell Road

MAY 5 2019

BATTLE OF THE ATLANTIC – (Harrison Pond)

MAY 25 2019

POINT HOPE SHIPYARD

SAILING – Nil Report

MEMBERSHIP – APPROVAL OF NEW MEMBERS (BYLAW 2.1)

No New Members Presented



OTHER REPORTS AS REQUIRED

PARK/CITY LIASION – REPORT ON SEWER PROJECT – Not expect to impact VMSS operations at this time

HARRISON POND REPORT UPDATE – Asked for input from the membership

UPCOMING EVENTS

FALL 2019 – BROADMEAD LODGE

4

OLD BUSINESS

HERITAGE ACRES – Edward White to Attend

BOAT REGISTRATION REPORT

MARITIME MUSEUM FUNDING REQUEST SUPPORT - CLOSED

5

NEW BUSINESS

6

50/50 SALES (15 MINUTE BREAK)

7

50/50 DRAW – 949 –BILL / 959 – RICK – 977 GREG PATTERSON

8

ANNOUNCEMENTS

PRESENTATIONS

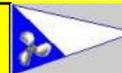
KEN – YTB 501 – GLENSIDE TUG (1943-1979)

MIKE – PROGRESS

ARNOLD – WHEELED VESSEL

9

ADJOURNMENT AT 8:20 PM



**VICTORIA MODEL SHIPBUILDING SOCIETY
GENERAL MEETING AGENDA
JUNE 13th 2019**

1
CALL TO ORDER AT PM

2
Welcome to guests

3
Director's and sub-committee reports

HEALTH AND WELFARE

FINANCE

SHOWS AND EVENTS

MAY 25 2019
POINT HOPE SHIPYARD – POST ACTION

JULY 13TH 2019
NADEN –NAVAL & MILITARY MUSEUM

AUG 31 – SEP 3RD
SANNACH FAIR

FALL 2019
BROADMEAD - VETERANS

SAILING

MEMBERSHIP – APPROVAL OF NEW MEMBERS (BYLAW 2.1)

CRD / CITY LIAISON – REPORT

OTHER REPORTS AS REQUIRED

PARKS / CITY LIAISON – UPDATE ON SEWER PROJECTS

HARRISON POND UPDATE

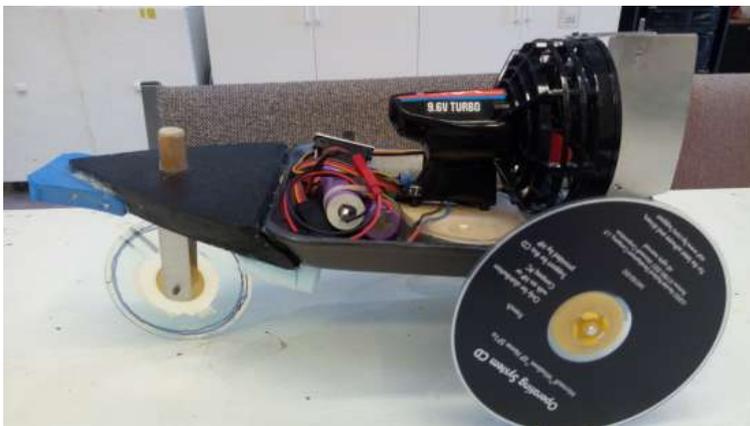


May Show and Tell.



Ken Lockley and his tug "Glenside".

Arnold and his amphibian air Trike/boat.



My apologies to Mike. I totally failed to get photos of his presentation.

NEXT BUILD;

by Ken Lockley

JUNE 2019

In 1944 the RCN had 8 eight "Norton Class" tugs under construction in two different ship-yards. These tugs were designed to tow disabled vessels in the Gulf of St Lawrence and the Western approaches to Halifax and Montreal. With a length of 104 ft. and ample power they soon became popular with industry once the wartime need was over. Three stayed in Naval use for sometime, until the "Saint" class of tugs appeared in the late 1950's. The CNAV Clifton was active till 1979 when the next generation of Naval tugs came into service.

Research indicates that at least one "Norton" class was in active commercial service until 2015.



As HMCS Riverton the tug wore pennant number W-47 and carried a large military crew.

(Photo taken in St. John's, Newfoundland.)

Norton-Class Tugs

537	368343	Heatherton	W 22	ATA 527	Montreal Drydocks Ltd.	Montreal QC
538		Beaverton	W 23		Montreal Drydocks Ltd.	Montreal QC
539	175492	Norton	W 31		Montreal Drydocks Ltd.	Montreal QC
540	172246	Alberton	W 48		Montreal Drydocks Ltd.	Montreal QC
541	172245	Birchton	W 35		Montreal Drydocks Ltd.	Montreal QC
762		Riverton	W 47	ATA 528	Canadian Bridge Co.	Walkerville ON
763		Maxwellton	W 46		Canadian Bridge Co.	Walkerville ON
764		Clifton	W 36	ATA 529	Canadian Bridge Co.	Walkerville ON



Mac Mackay collection

CNAV Riverton in Halifax harbour. When in Naval use, these vessels had a 26 man crew which included three officers. Great pictures by Mac Mackay Collection.

These next pictures are of Len Gibbs model of the sister ship "Heatherton" that he built around 1995. Len's artistic ability is really shown on all deck detail. This model is 43" on a fiberglass hull. Deck and superstructure wood and styrene combo. Bill Andrews is the custodian of this creation by one very talented Len Gibbs.

Thanks Bill for the chance to get a collection of detail pictures.





Len, has done a great job of adding humans in various places on the vessel. The ship is also dirty by design his weathering is exceptional with rust spots here and there. Note all the rounded corners.



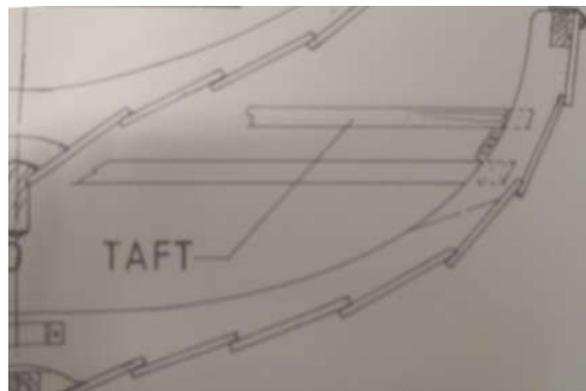
The Clinker Tradition

I was born, as Gerard Hoffnung would put it, at a very early age. In England. As far back as anyone has traced our ancestry, we were all born in England. I was given the name Edward, which is derived from the Anglo-Saxon Ead Weard. On the basis of this nearly non-existent evidence, I have lived my life identifying myself as Anglo-Saxon.

So you've likely heard me sounding off about the Anglo-Saxon Sutton Hoo ship, or read what I have written previously about it, 200 years before those Norwegian Johnny-come-lately Vikings.

But behind the whole history of ships and boats in Northern Europe is one outstanding feature. The Clinker method of building. The hull planks are attached first to each other with their edges overlapping. This is generally done around a temporary mould structure, but it can easily be done without any mould. The shape of the hull is determined by the shape the planks form as they are joined, and then that shape is reinforced and stiffened afterwards by inserting cross ribs formed to the already existing hull shell. The shipwright controls the hull shape by the shape of the hull planks and their joints, and the twist of the planks as they are bent to land at the ends.

The planking is started from the bottom centre of the hull, and each joint is made by overlapping the next plank up, with one or both planks tapered on the joint. Tapering the top of the lower plank produces a convex shape, or tapering the bottom of the upper plank a concave one. No taper and the hull is a set of very shallow stairs.



To my knowledge, this method of boatbuilding has been confined to the peoples who live around the North Sea, and, of course, to places where those people emigrated. The rest of the world seems to have ignored it. The mediterranean tradition was to join planks edge to edge with inserted tenons, so hulls were smooth on the outside surface rather than ribbed as in clinker. I don't know of anywhere outside northern Europe where clinker is popular, but around the North Sea the method was dominant on smaller craft. I should add that the other name for clinker is lapstrake, and that perhaps it is a better description since the word clinker is derived specifically from the sound of iron rivets being hammered over their roves.

Characteristic of clinker construction is flexibility. The planks are joined either by lashing or by rivets with the seams filled with fibre and tar. So larger clinker-built vessels are famous for their movement in a seaway, the hull flexing with the waves as if it were alive. Dragon ships! This flexibility puts a limit on the maximum size of clinker craft.

If you start looking for the origin of clinker craft, the most common reference is to the Hjortspring boat, which is actually more of a canoe, as the earliest yet found, in a Danish bog and dating to about 300 b.c. But this simply won't do! The evidence of river and sea trade

says that larger, more seaworthy, boats must have existed by 2000 b.c.

So I looked for sewn boats history instead and found the name North Ferriby.

North Ferriby is a small town on the north bank of the Humber estuary, Yorkshire. There the remains of three boats have been discovered and carbon dated to between 2030 b.c. and 1680 b.c. A full scale replica of the first of these boats, named the Morgawr, has been built and was launched in 2013. 43 feet long, five feet seven inches wide, three strakes each side, stitched with yew withies, she can carry up to 18 paddlers and would be quite capable of making her way down the coast and across to the mouth of the Rhine in good weather. There is plenty



of contemporary evidence of trade between Britain and the continent. A boat that size with 8 paddlers could make 6 knots and carry close to a ton of cargo. Four hours from Dover to Calais on a summer's day. Faster and easier if you stuck up a short mast and a square sail.

The bronze age arrived in Britain about 2500 b.c. The Ferriby boat at 2000 b.c. is as far back as evidence of clinker construction goes. It makes sense in that the arrival of bronze tools would have made it possible to produce smooth planks. It's a long, long time scale. Think about it.

There were seagoing boats around the coasts of the North Sea four thousand years ago. That was 1200 years before the beginning of the iron age. Two thousand years before the Romans invaded Britain. It was 500 years BEFORE Moses led the Israelites out of Egypt.

OK, I think we have an anchor on the beginning of the story. And it makes sense that the stitching materials, whether wood withies or animal guts, would limit the practical size of the boats until the later iron age, when rivets and roves could be produced in large quantities. But there's a big, glaring gap!

Modern small clinker boats are almost all fastened with copper or bronze rivets and clenched nails. The Bronze age in Britain started around 2500 b.c. and the shaping of the wood in the Ferriby boats would almost certainly be by bronze tools. So what happened to bronze rivets? Riveting is evident in the construction of bronze weapons and tools, it must have been obvious as a way to join planks in clinker construction. But I don't know of any early ships/boats that were copper or bronze riveted. It is such a logical progression, from lashing, to copper or bronze fastenings, to iron. We do know that by 2100 b.c. Britons were mining copper and tin,



and exporting them to the rest of Europe. How long could a boatbuilder who was building small ships with bronze tools to carry bronze tools and weapons, and copper and tin, ignore the advantages of copper and bronze fastenings? Lashings need elaborate grooves in the planks to keep them below the surface to protect them from abrasion. A copper clench nail is one small hole and perhaps ten hammer blows.

I don't have an answer. For now it'll have to stay a mystery.

So let's talk about modelling clinker boats. The first appeal for me is that most clinker craft are open boats. Almost the entire hull structure is going to be open to view. If you want to build a Viking Dragon Ship it'll get pretty elaborate, but craft up to 50 feet long are relatively simple and the construction should simply scale. Still, it would make sense to use epoxy in the joints and to waterproof the wood. If you are going to build a sailing model, then a false keel will be needed for stability, and the hull structure will have to be rigid enough to support it. Epoxied joints will do that. The next nice thing is that clinker boats are individuals. You will be completely authentic in building with the same free hand that the full size boatbuilders have. Sure, there are some one-designs like the Folkboat, and some boatbuilders do re-use a set of moulds many times, but most clinker craft are a compromise between the will of the boatbuilder and the way the wood wanted to go. A nicely shaped keel, a single mould at the maximum beam, and possibly a transom, are all that need to be mounted to your building board. Everything else is in the flow of the planks.



The longest tradition of continuous use of clinker-built boats is way up north. It's the Nordlandsbat, Northlandsboat, of the Lofoten Islands of Norway. There's a good reason for this. Up there, north of the Arctic circle, the Gulf stream hits the Norwegian coast. The warmer water means that the cod from the Barents Sea migrate to the south-east side of the Lofoten Islands to spawn. For much more than a thousand years this has been the world's richest fishery. (Dried cod dishes are part of the Lenten Catholic cuisine in Italy.) And up to the end of the

Nineteenth Century, this fishery was carried out by the Nordslanbats, square sails on clinker-built hulls, anywhere from 20 feet to 50 feet long, crewed by between two and seven men. These boats commonly had a removable domed, clinker built cabin over the stern. Once they reached the fishing grounds they would take off the cabin and put it on the beach for a shelter/camp while they did the shore work of building racks and setting the cod to dry. This land is occupied by two peoples, the Norwegians whose language is related to the other Germanic peoples of the North Sea, and the Sami, who we used to know as Lapplanders,

whose language is closer to Finnish. Both are involved in the Lofoten fishery, and early traditions tell that the Sami built Nordlandsbats by sewing the planks together with reindeer intestines, rather than using iron rivets. They built some of these boats for sale to Norwegians as part of their economy.

Now it's a guess, but it seems likely that the Sami were exploiting this fishery well before the iron age came to Scandinavia, since the Sami are believed to be the indigenous people of the North. And likely the design hadn't changed significantly for many centuries, since the same people with the same resources were doing the same job in the same conditions. My expectation is just that the boats grew larger as the export markets were established in the 13th and 14th centuries, and Norwegians came north to serve the market. Iron rivets again would make it easier to build and keep the larger boats.

That's a nice segue into the second type of clinker vessel I would like to show in this article.

This is the Norse Knarr, which was the shorter, broader beamed, version of the longship developed as a trade ship. It was Knarr, not longships that carried the Norse to Iceland, Greenland and ultimately, Vinland. Relying more on sail, less on oars, it didn't have to feed the huge appetites of a warrior crew, and could substitute paying cargo for their weight and that of their gear and weapons.

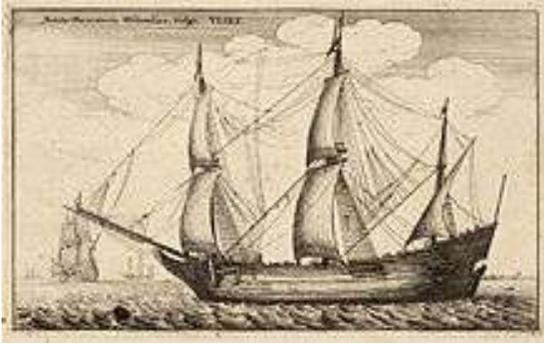


Next is the cog, the preferred cargo ship of the Hanseatic League, a confederation of merchant guilds and market towns in Northwestern Europe that dominated trade from around 1200 to 1500.

The cog was a step further. Still beamier, flat bottomed, with the innovation of a central stern rudder in place of a steering oar, it had more capacity and rapidly adopted closed decks to protect its cargo. But it still used clinker construction on the hull sides.

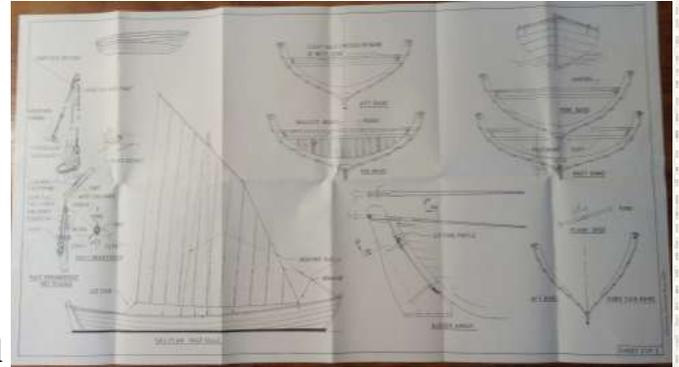


It was much more seaworthy, and it was these cogs that would wait in Bergen in the spring to receive the dried cod that was coming down from Lofoten in the larger Nordlandsbats, and would ship it on all over northern Europe. Fore and stern castles were added to some for defence against pirates, and to use them as warships. The largest of the cogs could carry up to about 200 tons, a huge advance on the Knarr's 24 tons. As a ship design it dominated European trade for three centuries, and was only superseded by a huge technical change when the Dutch



developed the Fluyt, a two or three masted ship lightly built specifically for trade alone, with twice the capacity of the average cog, faster and with a smaller crew. But the construction of the Fluyt was carvel; the clinker ship, with its built-in flexibility, had come to the end of its potential as a cargo carrier.

But clinker construction still to this day is the best way to build small wooden boats. Especially if you want them to be beautiful. I have a set of plans for a model of the Shetland boat. Which is very special. The Shetland Islands need good fishing boats but have a big problem. They don't grow any trees. The solution was in Norway. In the 1800s, boatbuilders in Bergen would build small wooden boat kits that were "flat-packed" and shipped to Shetland. (So that's where Ikea got the idea!).



Up until around 1860 Norwegian boatbuilders would come to the Islands and put the boats together. These were known as "Yoals" in the Shetland dialect, but were based on the Norwegian "Oselvar". After that time the Shetlanders took over the building but stayed close to the original design. Hence if you look closely at the plans you'll see the traditional names of the parts in something like the Norse language. With their lugsail rig they were good for fishing up to ten miles offshore, carrying up to a three man crew. Nowadays, a few yoals are still being built for tourism and leisure fishing, but of course commercial fishing has been taken over by large modern motor ships.

I have two personal connections with Clinker craft. I first learned to sail a boat in my early teens on two family holidays on the Norfolk Broads. We rented a traditional four-berth broads sailing cruiser and it came with a little (maybe ten feet) clinker dinghy with a free-standing mast and a lug sail. My father of course was in charge of the cruiser, but my older sister and myself were allowed to take the little dinghy on our own. I still, 60 years later, get a little thrill thinking about that little boat catching the wind and starting to chuckle across the shallow lakes that



are the Norfolk broads.

Later, my first year at University, I joined the college rowing club, which was housed in the Thames Rowing Club, the oldest club around and the start point for the annual Oxford and Cambridge boat race.

As a novice oarsman in the junior crew, I rowed in a clinker built eight, a derivative of the Thames Skiffs which were the first craft used for rowing as a competitive sport. By this time, 1964, all new eights were being built with lighter curved plywood shells, or in fibreglass. I remember one day as we were lifting our clinker eight out of the water, complaining about its weight and age. The Thames club caretaker (Boatman) was there and I immediately got dressed down. "I'll have you know Marlow Eights, 1938, was won in a clinker, it's the oarsmen that win, not the boat." What a lesson about tradition!

So, if you like a challenge to your craftsmanship, consider building a clinker model. It'll immerse you in learning a 4000 year old boatbuilding skill, and it doesn't have to be a "Viking" longship.

Edward White.



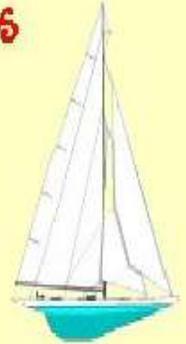


The Victoria Model Shipbuilding Society is a non-profit club, open to all, established in 1978 under the Societies Act of B.C.

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