

June 2021

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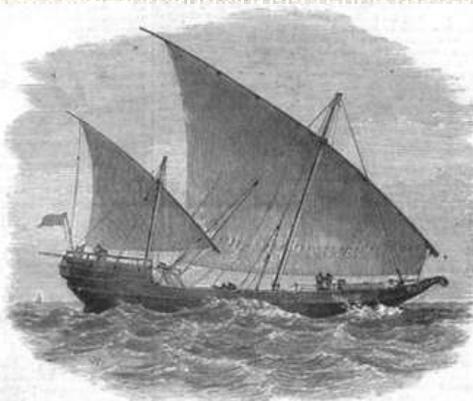


# *The Binnacle*

Victoria Model Shipbuilding Society  
Victoria, B.C.



Ken Lockley on  
St. Lawrence Seaway, Yellow Cedar,  
and progress in his workshop.



Edward White on  
When did we go to Sea?

Would you like a Tanker, or a Troller?  
They are for sale to a good home.



<http://www.vmss.ca>



**From  
The Bridge**

Welcome to getting close to the end of Covid restrictions, model boaters!

We can return to meetings with our July meeting. It will not be an indoor meeting because our regular meeting place is unavailable until September. I know some members don't want to meet until September anyway just to make sure the virus is beaten down.

Our plan is to have bring-your-own-lawnchair meetings in July and August followed by an indoor meeting in St Peters hall in September. We will announce details later, but please bring a few bucks to purchase club decals from Calvin and operating goodies from Mike.

Also, let's see the projects you have been working on during the pandemic. There should be quite a few after a year and a half!

City parks staff have a lot of work to do to make Beacon Hill Park safe, but I hope they will be able to clean the pond . They have allowed us to refill it. Anyway, it is available to use, and the parking situation is eased, so please check it out  
See you soon

Ron



**2020 Executive Committee**

<i>President: Ron Hillsden</i>	<b>479-5760</b>
<i>Vice-Pres: Dave Nelson</i>	<b>812-1942</b>
<i>Secretary: Elgin Smith</i>	<b>384-0574</b>
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<i>Director @ Large: Ken Lockley</i>	<b>477-5830</b>
<i>Binnacle Editor: Edward White</i>	<b>385-6168</b>
<i>Quartermaster: Vacant</i>	
<i>City Liaison: Mike Claxton</i>	<b>479-6367</b>
<i>Membership: Bev Andrews</i>	<b>479-2761</b>
<i>All above area code (250)</i>	



**ON THE RADAR**

Upcoming Events



**Meetings: Second Thursday 7:30 on Zoom.**  
**Upcoming meeting: 10th. June.**



**Sundays 9-11**  
**Harrison Model Yacht Pond (HMYP)**  
**Dallas Road at Government Street**



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



## From the Website Contact Page. A Tempting Offer.

Name

Doug Hunter

Email

TheNorthForty.dh@gmail.com

Comment or Message

I have a model boat that I have partially completed. It is a scratch built model about 33 inches long of a West Coast Salmon Troller. The name of the troller is Lyra, and it was based out of the inner harbour for many, many years. I have completed the hull with running gear, deck materials, plus many fittings which I made. Also there are hundreds of photos, and measurements contained in a binder to assist in the continuation of the project. There are lots of materials to be included, both wood, and brass. Everything I've made so far is either brass or steel. The anchor which took me two weeks to make, is machined out of solid steel, and it is very accurate. I am a Mechanical Engineering Technologist and have worked in calibration for the last 18 years. I like to think that everything that has been made so far is at, or above, museum grade in terms of accuracy, and construction quality.

This project has stagnated, and for 22 years now. I would like to find your best builder and speak with that individual about having he or she take on the project (sell it to him/her for a reasonable price) so that a piece of west coast history can be completed and seen.

Best regards,

Doug Hunter

Victoria, BC



**SHIPS, BOATS & MODELS #45**

by Ken Lockley JUNE 2021

The recent labour dispute with the Port of Montreal dock workers has had me looking at the St Lawrence Seaway, as well as the connecting Welland Canal and Soo Locks, making vessel navigation possible to the Western end of Lake Superior.



How long does it take travel the system from the Atlantic to Duluth, Min?

136 hrs at 15 knts, 231 hrs at 10 knts.

**Lawrence Seaway** Management Corporation and the US **Saint Lawrence Seaway** Development Corporation. It takes approximately 8.5 days to **sail** the 2,038 nautical miles of the **St. Lawrence Seaway**, from Duluth, Minnesota on Lake Superior to the Gulf of **St. Lawrence** on the Atlantic.

**The Great Lakes St Lawrence Seaway** System is the world's largest inland waterway; "the tallest water staircase west of China". Using its canals, shipping channels and locks, ocean-going vessels can sail 2,312 miles (3,700km) into North America's interior, from the Atlantic Ocean to the western tip of **Lake Superior**. Apr. 23, 2019





## Alaskan Yellow Cedar (also known as Cypress)

The slow growing **Alaskan Yellow Cedar** is a tough, solid tree and the hardest known cedar in the world, while also boasting exceptional longevity. Due to its straight grain and yellow colour, Yellow Cedar wood is very valuable commercially. It is used extensively for paddles, boat building, as well as other exterior projects such as bridges, decking, stairs and landscaping. Similar to the Red Cedar, it is highly decay resistant and strongly aromatic when freshly cut, due to its natural oils. However, it's interesting to note that the Alaskan Yellow Cedar is not in fact a cedar tree, but a cypress tree.



Considerably harder when dry than most commercial softwoods, and therefore much stronger, AYC has excellent strength and wear properties as well as great impact resistance. It is suitable for all types of joinery and carpentry due to its appearance, durability and easy working characteristics. This wood is so easy to work that it has become prized for applications such as joinery and carpentry, decorative panelling, furniture, mouldings and cabinetwork. It also withstands constant wear and load impacts without forming ridges or splitting, and does not splinter.

One of the disadvantages of Alaskan Yellow Cedar is the ability to sourcing large diameter high quality wood. For this reason many builders choose red cedar over yellow cedar.



# SYREN

Ship Model Company

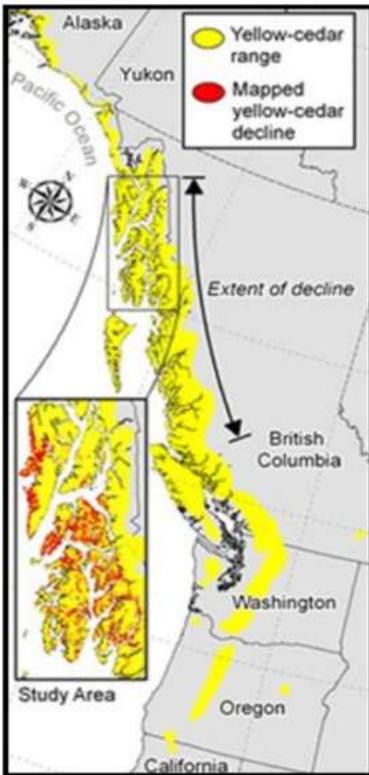


### Medway Longboat

1742

Fully framed model kit in 1/2" scale





Below, a friend, Dave Teece looking at a load of Yellow Cedar that will be part of their Sundeck project. These 2 X 6's are to be treated with a wood preservative to help the boards to silver up in colour over the summer. This load came from a sawmill in Chemamus. All Cedar products at present are in big demand and the prices are reflecting the increase in demand. \$\$\$\$ I acquired some scraps!!!!



In the workshop!!

#1 Shows ready for the first coat Epoxy. Some Bondo used showing my imperfections.

#2 This is what it looks like once removed from the building board. Lots of waste to cut out.

#3 All the waste material cut out and sanded, getting ready for motor mounts and alignments. Looking at the stern you can see the shaft. The extended piece at the bow will be cut to size later, once the height of the bulwarks is established.

#4 The motor in place and lined up with the shaft. This can take a little time to get correct. The plus side is, usually once in place it can stay there without being removed. I just cover it up with some plastic to keep the dust out. You will notice a Dumas universal device. I only use this Dumas product because I had it available. I must say, I have had no problems with the Dumas Universals



# 5 This the first time I have added Anchor ports to a hull and I feel it will add a bit more detail. The actual port I made with heavy styrene. A lot of drilling and filing in the fitting process. Then epoxyed in position as you see it. That's some filler around the edges.



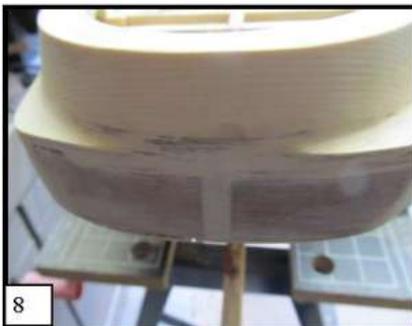
#6 Deck beams all in place and ready for the installation of the cabin coaming. The inside has now had two coats of epoxy and at last dry. My epoxy was the end of a bottle about 4 years old which required five days drying time.



#7 This picture shows the king plank in place and also the bow end of bulwarks. The side pieces will fit into this. Boating building, full size or models, clamps are so important and believe me I have a lot, but I don't believe any get as much use as these, the ones you see here. Dollar store variety, six on a card for \$1.50. Good deal!!!



#8 This stern view will look a little different to you. The plan is for a very substantial rubber bumper protecting this area. See you next month!!



## Tanker for Sale.

From Rick Gonder,

Hello all. This 10' tanker is for sale in Courtenay. It was built by a marine engineer and is radio controlled. The lady selling it has not put a price on it but wants to hear from anyone interested.

Seller is Jen Stigter at ([jenstigter@gmail.com](mailto:jenstigter@gmail.com))

Rick.





## When did we go to sea?

First; a Confession. This article is unfinished and unpolished. It is very much a work in progress. As I have been writing it the subject has just blown up on me. I've kept trying to finish it but there's a ton of research yet to go. So what's below is just a first pass!

I guess it makes sense to me that boats got started in river estuaries. A tidal estuary would provide a hunter-gatherer group a massive extra source of food, especially proteins, easily available by wandering the shoreline. And the relatively calm but moving waters would make transport of anything gathered really easy. The iodine rich diet would ensure full brain development in children. A few miles upriver, where the water stayed fresh, would be the river bottom land, the flood plain, that has always been the best place for agriculture. There you could learn to replant some of the seeds, to weed and to water and to harvest, dry and store. And at least twice a day, there was effortless, free, transportation riding the tide between the two.

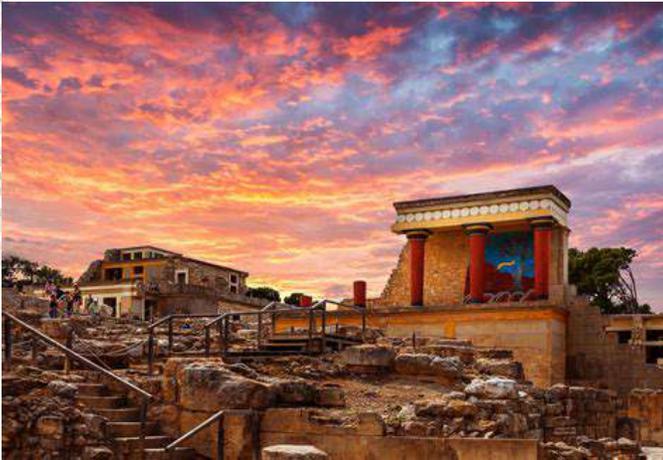
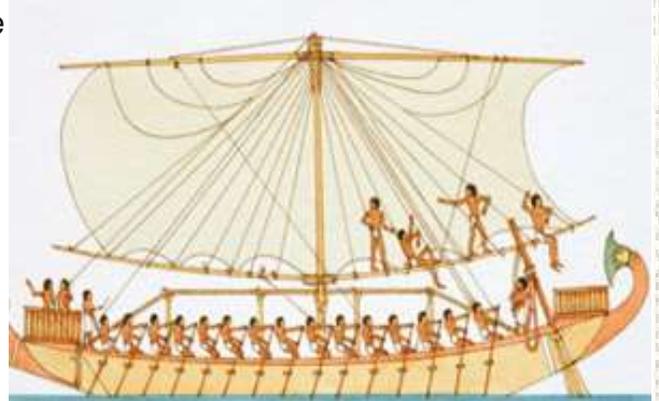
What do we know?

The Epic of Gilgamesh was written in Sumerian and dates to around 2100 B.C. In that poem, the character Utnapishtim tells Gilgamesh that he was told by a god to build a great boat with seven decks in order to survive a great flood that other gods were sending to destroy mankind. So the idea of a seven decked boat that could ride out storms was understandable in 2100 B.C. Gilgamesh was a rather abusive king of the Kingdom of Sumer, capital city, Ur. Remember "Ur of the Chaldees", Abraham's original home. This is what it looks like nowadays.



On the Nile, a prevailing wind from the North could drive a boat up-current for hundreds of miles, and with the sail down it would drift all the way back to the coast. From a boat that could carry stuff on calm waters to one that could get to an offshore island or to another river mouth a few miles along the coast is not so great a step of either imagination or development. We know that Egypt had large boats sailing and drifting the Nile by 2000 B.C.

Most of us have seen this kind of picture from the tombs of the Pharaohs.



We know that the Minoan civilization flourished on Crete from around 3000 B.C. to 1100 B.C. and that it was a trading "empire" in the eastern Mediterranean with contact with Egypt, Palestine, Syria, Turkey, the Aegean Islands, and Greece. Seeing that Crete is and was an island, ships are kind of proved.

We know that the people we now know as Australian aborigines crossed into Australia somewhere between 38000 B.C. from south-east Asia. This may have been by land bridges that then existed, but they later reached the Solomon Islands and the New Hebrides, which never had such land bridges. Then, around 3,000 B.C. another wave of immigrants from south-east Asia travelled along the north coast of New Guinea and became the Polynesians, eventually reaching Hawaii, New Zealand, and even Easter Island.



I want to write several articles about the ancient history of ships, and about their separate streams of development. Three of these will be based on the traditional Arabian sea and Indian Ocean trade, the great Navy of China, and the Polynesian voyages. That's because I think them less well known than the history of Western shipping. And because I think the Western bias in our history of shipping misleads us quite badly.

The first then, is the Arabian sea trade. Very specifically the Dhow and the Lateen sail that propelled it.



I'm choosing this because the earliest, if flimsy, evidence of boats, is in the first two civilizations we know of, the Sumerian, and the Egyptian. The Sumerian capital, Ur, was, 4,000 years ago, a coastal city at the mouth of the Euphrates on the Persian Gulf.

Memphis, the capital of Egypt at that time, was at the head of the Nile delta, around 100 km from the Mediterranean coast. And that's also only 50 km from the gulf of Suez, and on to the Red Sea.



Here's the area that I am talking about, thanks to Google Maps. The top right hand corner shows southern Greece, with the Island of Crete, (the Minoan Civilization) to the south-east. South-east again is Egypt, with the Nile delta the green patch on the north coast and the river itself showing all the way from South Sudan.

At the east edge of the Nile delta is the present day Suez canal, leading south through the Great Bitter Lake to the Gulf of Suez and then to the Red Sea, the Gulf of Aden, and the Arabian Sea.

East of the Red sea is the Arabian peninsula and then the Persian Gulf. The north-west corner of the Persian Gulf is now Kuwait, the remains of Ur are around 150 km north west again. But look much further north-west again, and you'll come to the north-east corner of the Mediterranean. 200 km east of that point the Euphrates river comes out of the Turkish mountains flowing south, and a further 300 km east again, the Tigris does the same.

Those two rivers both flow, slow and wide, down to the head of the Persian Gulf, and the land between them, Mesopotamia ("between the rivers"), was probably the biblical "Garden of Eden" Nowadays the Euphrates joins the Tigris just north of the Gulf, but when Ur was the proudest city in the world, the Gulf came further north, and Ur was built just where the Euphrates used to flow into it.



The Persian Gulf leads south into the Strait of Hormuz, (where the US navy plays with Iranian patrol boats), and then to the Gulf of Oman. The north coast there is first Iran and then Pakistan. Where the coast turns southward is nowadays Karachi, and the darker patch of land going north and east from there to the Himalayan mountains is the Indus River Valley. That's the third great early civilization we know of, from about 3000 B.C. to 1300 B.C.

The other thing you have to know about this map is that from April to September, the monsoon winds blow steadily to the north-west from equatorial Africa, and from October to March they blow steadily south east.

There's a very old saying in Arabic, "Sand won't build you a dhow". You can go yourselves to Google maps to find the next very important factor. That is that, to the south on both the African coast and the Indian, lie the lush forests, the green bits. That's where the wood is!

Ok. 4,020 years ago there was seaborne trade all the way from the Indus Valley to the Greek Islands. The Nile and the Euphrates both had river boats built from Papyrus with square sails for a thousand or more years before this. And Thor Heyerdahl proved in the Tigris expedition that a square sailed reed ship built on the Tigris just 100 km from the site of Ur could have reached both the Indus valley and the Red sea. Not fast, but it did it.

But to build their cities both civilizations needed roof beams. Egypt reached for the "Cedars of Lebanon" and likely down the Red Sea to the coast of Africa. (mahogany) Sumer could get some timber from northern Syria/southern Turkey down the Euphrates, but also could reach out to southern India for wood. (teak) And the best way to get timber transported was to build ships where the timber was cut down, load them with wood, and sail them back before looking for other trade. That's the same story of North America's west coast schooners 3850 years later. The dhows were built and Gold, Frankincense, and Myrrh, flowed northward from India, Southern Arabia, and Somalia.

All this depended on the monsoon winds and the boats/ships that could use them. Working the wood with which they were built depended on bronze cutting tools.

Sumer and the Indus Vally were the first civilizations to make bronze, starting around 3,000 B.C. The knowledge of bronze may have spread from one to the other overland or by reed ships, who knows? But both now had the resources to build in wood, and the need to trade for their own prosperity.

I believe that they developed in common the first form of Dhows. These were double-ended boats built with wooden planks stitched together edge to edge with reed or coconut coir rope around a simple mould, and then fitted with internal frames cut from forked or radically curved timbers for maximum strength. Remind you of anything? Overlap the planks and join them with rivets and you have a longship! They are light, seaworthy, and fast. And it's almost impossible to build an ugly one.

But what happened to the square sail? It was there on the reed boats in the rivers. Especially



the Nile. The old illustrations show a low aspect ratio with an enormous length of yard. Well shallow draught reduces stability, but light winds inland demand a big sail area. Provided that you are sailing directly downwind it works. Cross-wind not so good, and upwind not at all. In a river you can row or paddle upwind if the current is with you and the wind is light. Or even at sea if you have a longship full of idle warriors who need hardening off before battle. Otherwise you can wait for the wind to change, not so big a deal in the North Sea where it does so frequently.

In the Arabian sea the wind isn't going to change much for 6 months. So you need firstly planning! When that goes wrong you will really, really, rack your brains for a bit of cross-wind ability.

Or maybe not! Here's a question for you, have you ever seen a boat under 30 feet with a square sail? Not a model! If you did have a dinghy with a square sail, how would you stow it? Fore and aft, right. Now raise it again, fore and aft, and tie the front bottom corner tight down near the bow. If you have a foot or so of rope left on the halyard, then as the sail catches the wind, the yard will tilt upwards at the stern end, the hoist moving aft of the mast, the front edge will go very tight and straight, the boat will start to move forward even though it's still pointing 45 degrees upwind, and you just invented the dipping lug. Next time you set the sail tie the halyard a foot or two further forward, and it'll work even better. From that point on, just follow the trend. Add extra length at the leech, and tilt the yard upward where it's catching more wind. When the fore end of the yard gets down to half the height of the mast, it'll be called a settee rig, and if it gets close to deck level, it's a lateen. Try it on a bigger boat.

It's a little worse on one tack, when the sail is to windward of the mast, but with the monsoon winds so reliable, you can pick your side of the mast at the dock before you set off and you'll almost never need that other tack.

I'm sure that happened on the Nile, the feluccas are still carrying tourists. I think it happened in the harbour at Ur.



As far as we know, the pattern of building dhows in Africa and India, to be sailed by Egyptians and Arabs, has persisted ever since. The tools changed from bronze to steel, making building more efficient, decreasing costs and increasing trade. You can still go



to Zanzibar, or to Kerala, and order your dhow. Here's one being built on Zanzibar:

And another launching in Kerala.





deck.

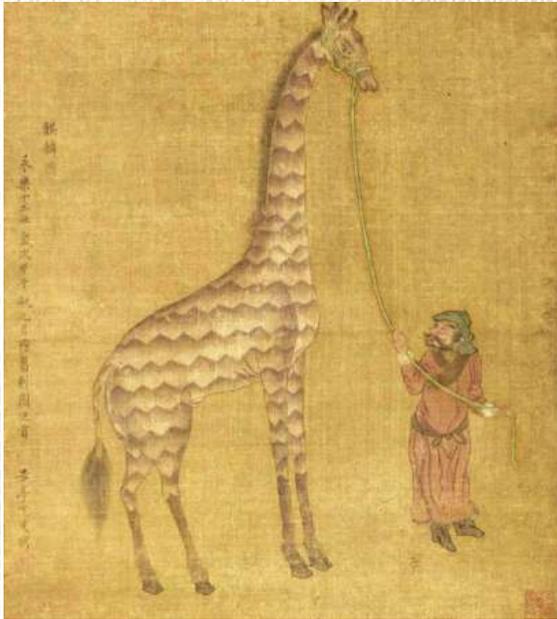
They are still hand built by traditional methods, even though the majority of dhows being built today have no masts or sails, but diesel engines. Here's the biggest yet, launched in 2020, built in Kuwait. As you see her in the photo, she's about 2500 tons, powered by two 1850 horsepower diesels. She'll carry up to 6000 more tons of cargo.



Larger dhows have a poop deck covering the after part of the main deck, and there may even be a master's cabin across the stern. This has been said to have been copied from the Portuguese caravels of the 1400s, but there are a couple of real historical dates that give pause to anyone who has believed the European story of discovery.

The first is 830 ad. This is the carbon dated age of a shipwreck just off the island of Belitung, about 610 km south-east of Singapore. The wreck was discovered in 1998 and salvaged. It was that of a traditional sewn plank dhow and its hold was full of Tang dynasty porcelain from Changsha, China, most likely purchased near the mouth of the Yangtse, at present day Shanghai. One of the Changsha bowls is actually inscribed (in Chinese) "16th day of the seventh month of the second year of the Baoli reign", or 826 AD. That's a sailing dhow from Arabia returning with cargo from China just 33 years after the start of the Viking age, (Lindisfarne 793 ad.!) There's a replica in a museum in Singapore.

The second is 1413. In that year, sailors from Malindi, Kenya, arrived in Bengal with a special gift for Bengal's King. A Giraffe. At the same time a great naval armada arrived from China (more later) and contacted the Bengal court. Bengal's King immediately re-gifted the animal for the Chinese Admiral to take back to the Emperor. The Admiral asked the Malindians to visit the Chinese court and, if possible, to bring another giraffe. In 1414, they arrived with the second animal in a dhow and were very much welcomed by the Ming Dynasty Emperor, Yong Le. Yong Le commissioned a painting



which is right here..

Compare that date to 1492, when Columbus set out to find China and missed it by the full width of both the Pacific and the Caribbean. Or with 1498, when Vasco de Gama became the first European to reach India around the Cape of Good Hope. Or even 1519, when Ferdinand Magellan set out to round the Horn and died in the Phillipines in 1521. If any of those three had cruised the Mediterranean to Alexandria, hopped a felucca to Cairo, caught a camel train to Suez, and asked down at the docks, they could have hitched a ride to China on a Dhow!

The giraffes beat them by 80 years!

This article is more than long enough and it's trying to get much bigger. Just today I found there is archaeological evidence in Kuwait of reed boat-building from as early as 6000 B.C. and in Oman of sea-going reed boats from 2500 B.C. If you got this far, thank you for your patience. I will try to cover modelling of Dhows next month.



## This month's Websites and References.

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