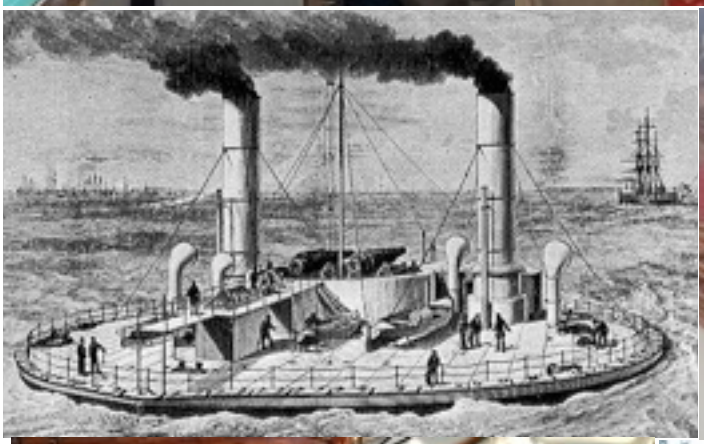
Scuttlebutt

March 2021

NEWSLETTER OF THE CANBERRA MODEL SHIPWRIGHTS SOCIETY

Established 21 April 1988. Incorporated 16 January 1991

OBJECTIVES: To foster and maintain interest in building model ships, boats, associated fittings, gear, equipment, armaments and relevant items and structures and the pursuit of excellence in this field.



COMMITTEE MEMBERS - 2020-21

President Bob Evans
Vice-President Matt Shepley
Secretary Bill Atkinson
As.Secretary Elizabeth Hodsdon
Treasurer Peter Hateley
Members Ray Osmotherly, Warwick Riddle
Appointments made by Committee:
Member Liaison Max Fitton
Web site, Face Book– Steve Batcheldor
Newsletter - Brian Voce

Gatherings

The Society will meet until further notice, at the Men's Shed at Melba on the third Tuesday of each month (except December and January).
Visitors are welcome.
Coming CMSS activity:
16 Mar - technical session
20 Apr - AGM and general session
18 May - technical session
TBA Jun - tour/social event

Society Web-page

CMSS members are encouraged to visit our website at:
http:/ / www.canberramodelshipwrights.org.au.
Instructions for using this website are on the site itself where members will need to register. The webmaster will help you in any way possible.
We seek content for the website - everything from photographs of your models through interesting web-links and chat.

Society Facebook Page

The Society has a Facebook group to promote the Society and to attract new members. So please feel free to post items on the page and share it with your Friends. https://www.facebook.com/canberramodelshipwrights/

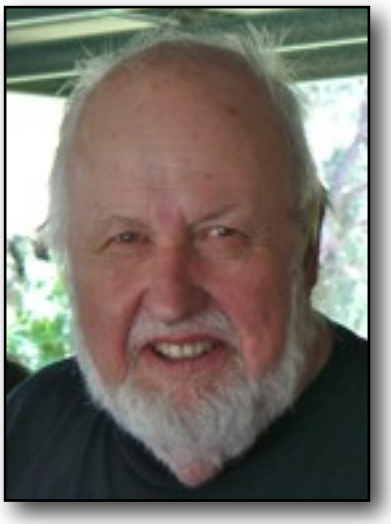
Subscriptions

Annual Membership:

a. Canberra Area-Single $30.00, Couple $45.00.
b. Country/Interstate-Single $15.00, Couple $22.50.

Payment Details:
By Cash to Treasurer
Post by cheque/Money Order to PO Box 158, Fyshwick, ACT, 2609; or
Bank Deposit to
Beyond Bank - BSB 325185
Acct Name - Canberra Model Shipwrights Society (or CMSS)
Acct No 03452396.

PRESIDENT'S REPORT



Good morning Fellow Modellers,

I am delighted to say that even Covid can't keep a determined Society down and our first meeting for the year was held in our usual venue on Tuesday 16th February. Numbers were not great with some 10 Members present. This is not unusual for us, so it certainly wasn't cause for doom and gloom for the future of the Society.

In January a number of Members and their better halves attended a very pleasant lunch at the Ainslie Football Club, all possible simply by following the Covid requirements of signing in, sanitising tables etc. When you think about it, Covid or no Covid, these would be sensible procedures to follow in any case.

Perhaps these could be gatherings we might consider during the year, open also to non-Members as a means of encouraging Membership growth?

Comments from any readers of this Newsletter are most welcome and you are encouraged to contact us if you have any suggestions in regards to the Society's activities.

Speaking of our wives or partners I am constantly reminded of how important they are to our enjoyment of our hobby. One, and one of many, of the sadnesses I have experienced since the passing

of my wife, has been the absence of anyone at home to speak to of my activities or the support and encouragement that I was always given in connection with my hobby.

So, come on all of you let us give thanks and recognition to those wonderful people we share our lives with.

If I may be so bold, could I suggest a small article from time to time on the vital part they play . (Editor please note)

So far as our activities are concerned, meetings will remain as they are now , i.e. each third Tuesday of the month at the Melba Men's Shed commencing at 1000. I realise this precludes those folk who are encumbered by the dreaded work, but our recent survey indicated that this would be minimal, and in fact a similar number would not attend night meetings, particularly in winter. I am also mindful of our Country Members and would welcome any suggestions as to how you could improve our involvement of that important part of our Membership.

We will be going ahead with planning for a number of activities which will obviously be dependent on developments with Covid.

So far we will be submitting a request to attend Malkara in August and will begin planning for Expo 21 in the near future.

We are also planning to hold an Exhibition at the Canberra Museum and Gallery, similar to the one we held a number of years back.

Due to future bookings at the Museum this will not be possible until 2022, but that will be upon us before we know it. Other Expos such as the SMSC and the ACTSM will be considered as they evolve, as will any other events that could be of interest.

So, you see it is not the end of the world, perhaps a different one into the future, but that may not be a bad thing.

Please keep your thoughts and ideas coming in, Member or non-Member, keep up the modelling and the contributions to this Newsletter and above all, stay safe.

All the best,

Bob Evans

President CMSS

SCUTTLEBUTT MARCH 2021

CONTENTS

WORKSHOP OPEN - Warwick Riddle opened his workshop for members recently, an enjoyable and instructive visit. Clockwise from top left: Peter Hateley (back to camera), Warwick, Ray Osmotherly, Bill Atkinson, Robert Hodsdon; the Orion model takes up a lot of workshop space; Ray with Warwick's 1/9-scale model of the MV Laomedon part of the Blue Funnel Line; drill press and cut-off wheel; Warwick, Bob Evans and Robert in deep discussion. *Photos: Elizabeth Hodsdon.*

SINKING OF VASA LED TO IMPROVED SISTER SHIP

In the last issue **Liam McLean** told of his decision to build consecutively two models of the Vasa. Along the way one of the models has been modified to represent the Vasa's sister ship the Apple.

This article is an update on my *Vasa* (and *Äpple*) model build which was featured in the last newsletter. I have also provided more comprehensive progressive updates on the CMSS Facebook Group. I will continue to post photos on that site as each stage of the build is finished. I will also provide photos for the newsletter when the build is finished, and the models are safely in their display cases.

I began this build with the intention of building the models using only my existing stock if possible. I have managed to achieve that so far, only using bits and pieces from my stock in the build. As can be seen in the photo above, except for a few additions that would be better done after the rigging has been set, the hulls have been completed.

In researching for the build I found information on the probable colour scheme of the *Vasa*. As you can see in the photos above and next page, this makes the stern of the model seem a little gaudy; nonetheless it is close to what was described. In comparison, where the rest of the wood on the hull was heavily soaked in oil and tar and not painted, the model looks quite drab. The application of the oil and tar protections to the vessels themselves would have helped to save the ships from rotting while under water for so long.

During my research to assist in the build, I also found on the internet that the *Vasa* had a sister ship called the *Äpplet*, or *Apple*, which was almost identical. This ship was still being built at the time the *Vasa* launched and sank in Stockholm Harbour. The faults identified with the design of the *Vasa* were quickly rectified in the build of her sister ship. It was believed that the *Vasa* had too many heavy cannons placed high up on the ship and these were the cause

of her capsizing when manoeuvring. Accordingly, the *Apple* was then fitted with lighter cannons.

Apple was launched in 1629 and was purposely sunk as a harbour protection wreck in 1659.

In line with my intention to use my existing stock for these builds, it was fortunate that I have several cannon sizes in stock and I was able to fit one model with larger guns than the other model. This enabled me to have one model representing the *Vasa* and the other the *Apple*.

It is of note that the wreck of the *Apple* has been recently found so these variations between the two ships have been confirmed.

You can see from the photos that I have already started on the masts and rigging. This part of the build will require some further research as there is little information on the style of rigging on a Swedish ship of this era.

I have checked out the kit sails I have in stock and believe that I will have enough to rig both models. I will of course have a bit of cutting and sewing to get them the right size. But the basis is there.

❄

BRUCE GEORGE continues his discussion on ship modelling timbers and looks at Australian and other timbers suited to the task

MODEL TIMBERS - Part 2

In Part 1 (Scuttlebutt, December 2020), I looked at the timber species used by 12 ship kit manufacturers. After listing the timbers used by the manufactures and noting the country of origin of the timbers, it became apparent that the use of common names for the identification of timbers can lead to confusion. Part 2 lists Australian and some other foreign timbers suitable for ship modelling, including the "botanical name" of the timbers to provide a botanical base reference, together with the "common name". Other details relating to the colour, grain characteristics, workability and ability to take finishes have been included (See Attachment 1).

Now if you want to build a model because there is no model kit for the ship you want to build or its not available in the scale you want, then scratchbuilding is your next option. You would normally start with a set of plans, a high level of motivation , a bunch of tools, a folio of data in the form of pictures, data/ dimensions and other information relating to the model. well thats the way I start. Now is the time to plan what you are going to build it out of eg,materials , I also use plastic, brass, aluminium but mostly I use timber as its my favourite medium.

Ready to use Timber

Well if cost is no problem you would probably make a list of the materials/quantities you need, send an order to your favorite model ship supplier and if its in country maybe in a couple of weeks the items would arrive together with a reasonable sort of bill. The other alternative would be to purchase the material from overseas, wait a couple of weeks/ months and get an even heftier bill, because of transport costs and exchange rates.

Reclaimed/Recycled Timber.

Another source of timber for ship model construction is reclaimed/recycled timber. This can be found in old solid timber furniture, wooden pallets, off cut timber discarded from joinery/ carpentery workshops, house demolitions and

Eucalyptus maculata

recycling/disposal outlets. The problems with obtaining timber from these sources lies in the identification of the timber. In addition is the breaking down of the timber into usable sizes and in some cases the removal of surface finishes this will take some additional time, equipment and skill, however there can be savings made provided your time is not a factor.

Australian Timber

So what's another cost effective way of achieving the task? Simple, use timber that is grown , milled and/or available in country. Australia has a wide range of native trees of many species that lend themselves to model ship construction. Many of the species are commonly used in house construction, furniture-making, woodturning and cabinet-making, so supply is not generally a problem .

Imported Timber

There are also a number of imported timber species that are used in the above industries. They are readily available from local hardware and timber merchants and some of these timbers have been included. Most of the timber species listed have at some time been used for model ship construction.

Preparation and Machining

The complication with using local/overseas sourced timber is of course that you will not be able to buy it in the sizes you required for building model ships; it

will have to be milled down to the appropriate sizes. Not every modeller will have the wood-working machinery , the skill or the experience to be able successfully to mill their own timber. Modellers in this situation could approach other members in their societies to enquire if members with this capability could mill the timber for you. There may be some further discussion and guidance on this issue in the future.

Plywood

Plywood tends to form the basic skeleton of most model ships, being used as keels, frames/bulkheads and deck substrates as well as planking of clinker built hulls (with the use of thinner plywood of 1.5 mm). It is readily available from most hardware outlets and timber merchants. Generally speaking "interior grade" ply is suitable for static model ships. If you are interested in what types of plywood are available, the internet will provide you with a significant amount of detail.

Sourcing

I have included a list of timber suppliers known to stock all or most of the timber noted. This list is ACT-region specific with some suppliers from eastern Australian areas. ***Please note it is not a comprehensive list of suppliers***

Plantation pine

The contents of this discussion is offered for the guidance and information of scratch builders of model ships and for the general interest to modellers at large.

Compiled by Bruce George, CMSS Member.

AUSTRALIAN AND OTHER TIMBERS SUITABLE FOR MODEL SHIP CONSTRUCTION

On the CMSS website, in the "Members Only Section", Steve Batcheldor (Society Webmaster), has placed notes for a Scratch Building Course he has developed for CMSS members. In the section "Lets talk about what wood or other materials that may be useful", he lists timbers that he has used for ship modelling and this has formed the basis for this discussion. (Input from both Steve and Warwick Riddle is appreciated and acknowledged).

Listed below is Steve's selection of timber species, together with those used by the author and other society members. Included are the botanical names, information on colour, workability, use and comments on Australian and some foreign timber species for ship modellers to consider.

The species listed below are but a small selection of timber species available. Those listed have been or are currently being used by Society members who prefer to scratch build model ships.

SHIP MODELLING TIMBER SPECIES

Radiata Pine – ***(pinus radiata***) Source, west coast of USA. Plantation timber grown extensively in Australia. A light white to yellowish brown coloured softwood that can be easy to cut and work with simple hand tools. It can have a pronounced grain structure with the slow growth areas often being much harder and darker than the soft part of the wood. Recommend careful selection of Radiata Pine; look for relatively short lengths of knot and defect-free pieces that have the grain running parallel to the edge. Suitable for the

first layer of planking as it is quite soft and flexible. It can be successfully milled down to 0.5mm thick but more typically planks 2 to 3mm thick can be particularly useful. Pine can also make good deck planking with selection of grain pattern.

Meranti – (***Shorea, various species)*** Source, South East Asia . A light brown to pinkish softwood (although this varies with species) often used for trim in houses. It is a relatively straight open grained timber with a subtle grain structure which is consistent throughout small pieces. Easy to cut but tends to fir up when cutting along the grain so sharp tools help to keep good edges on the wood. Again careful selection can result in some very useable stock for milling to sizes appropriate for model making. The open grain of Meranti can be a drawback for very small models, but it can be used quite successfully on medium to large models.

Bounty Jolly boat, constructed using some of the timbers mentioned.

Oregon – ***(Pseudotsuga menziesii***) Also Douglas Fir. Source, Canada/USA. Plantation grown. Colour, yellowish brown . Has a pronounced generally straight grain. It is used as a framing timber in house construction. It is easily milled and can produce good first layer planking as it is quite flexible in small sizes. The grain is probably too coarse to be used on any outward areas of a small model ship.

Cedar –(Australian Red) ***(Toona cillta)*** Source, Australia. Colour, pinkish to darker reddish brown. Generally a straight open grained timber that is easily worked with small hand tools. It is quite soft and flexible. It is difficult to keep a sharp edge on the timber and small knocks will deform any edge. Good for decorative purposes and carving or second layer planking if it can be milled to appropriate sizes. Can be difficult to source.

Merbau – (***Intsia bigunga***) Also Kwila. Source, South East Asia , South /West Pacific. Usually a straight grained deep red hardwood with a yellow fleck throughout. This timber is hard to work with in small sizes and is very brittle, breaking easily if you try to bend it, without heat/wet application. It can produce some good contrasting colour, but the yellow fleck can stand out too much on small models or when used as trim etc. Commercially used as a decking timber in the housing industry.

Note: There are more than 700 species of Eucalypus available, but further research is recommended regarding which are suitable for model ship construction

Jarrah ***(Eucalyptus marinata) also see Note above***. Source South West, Western Australia. A reddish brown to dark brown coloured hardwood that can be useful for small highlights on a model. Can have some good straight close grain but more often there is a wave pattern throughout the grain. You need good sharp tools to work with Jarrah, but it can be milled to quite small sizes for modelling. Careful selection is required particularly if you are going to try to bend small pieces as the wave in the grain can make it brittle and it is likely to break before bending unless heat /steam bending is used. Is used as a flooring and furniture timber. Takes oils and finishes to a high polish .

Redgum – ***(Eucalyptus Camandulensis) also see Note above .*** Source Australia**.** A dense red hardwood that is difficult to work. Seems to be very heavy and often heavily figured. Straight grain pieces can be found through careful selection. Good quality sharp tools are a must with this wood. Can be useful for small detail parts on a model ship but probably not that suitable for planking unless heat/steam bending is used. More suitable for decorative stands or small trim.

Sydney Blue Gum.- (***Eucalyptus saligna***) ***also see Note above.*** Source Australia**.** Colour, pink to dark red hardwood. Needs sharp tools to cut/ machine, polishes to a high luster . With care and

using heat/steam bending techniques can be used for ship planking up to approx. 3 mm thick .

Tasmanian Oak is a generic trade-name for a number of similar Eucalyptus hardwood species including, Alpine Ash/Victoria Ash *(Eucalyptus delagatensis*) , Mountain Ash *(Eucalyptus regans*) and Messmate *(Eucalyptus oblibua*). They are also known by the common names, Gum topped stringybark, Australian Oak, Whitetop stringybark, White top, Woolybutt, Blue leaf, and Mountain gum .

Alpine Ash (*Eucalyptus delagatensis*). *also see Note above*. Source Victoria, Tasmania and NSW. Colour yellow brown to pale pinkish brown, hardwood grain is usually straight .General characteristic are similar to those noted below.

Victorian/Mountain Ash *(Eucalyptus regans*). *also see Note above* . Source. South Eastern Australia , Victoria (plantation timber). Colour medium yellow to light brown, gum and mineral veins streaks are common in the heartwood and hardwood . General characteristic are similar to those noted below.

Messmate *(Eucalyptus oblibua) . also see Note above* . Source Australia , Tasmania,Victoria and South Eastern NSW. Colour, pale yellow to light brown with subtle hints of peach. Hardwood, generally with a relatively straight grain moderately coarse texture, bends well. General characteristics are similar to those noted below.

General Characteristcs for the above three Eucalyptus species. Requires good quality sharp tools to work and cut, particularly along the grain. Thies timbers hold a good sharp edge and can be milled to quite small sizes. Very thin strips can be produced for second planking etc. In its natural form the colour can be quite bland, but can come to life if stained.

Spotted Gum- *(Corymbia maculata/ Eucalyptus maculata*) *also see Note above*. Source Australia**.** A hardwood , deep red in colour. Good close grain can have some figure in it; you need to be selective to ensure that you get a piece with straight grain . This is a little hard to cut and work with, but still has a place in model ship building

Red Mahogany *(Eucalypyus resinifera) also see Note above*. Source East Coast of Australia. Colour, red to dark red. Grain usually interlocked with texture being medium to coarse a strong and heavy hardwood. Works well with sharp hand and machine tools. Can be polished to a very smooth finish, takes finishes. Would be suitable for masts and spars and other general use. Bending capability to be determined , but in thin section (2-3 mm) would probably be able to be bent with heat and steam bending techniques.

Queensland Walnut *(Endiandra palmerstoni*) Source Northern Queensland**.** Colour pale to dark brown with streaks of pink, greyish green or black. Grain can be straight, but often interlocked and wavy giving a fair degree of figure. A hard and moderately heavy timber. Can be worked with sharp hand and machine tools. Moderately suitable for steam bending. Takes a high finish .Because of its colour variations it would be advisable to be selective when using . Would be suitable for masts, spars, deck furniture and probably planking when cut to 2-3 mm section.

Queensland Maple -(Flindersia app. (F. brayleyana) Source Queensland Australia**. Colour, y**ellow to golden or reddish brown. Grain is interlocked and sometimes wavy, has a natural lustre. Can be "furry" when worked. Not suitable for steam bending Takes finishes and oils to a very high polished finish. Suitable for deck furniture, masts and spars and other general items .

Tasmanian Myrtle/Myrtle Beech - *(Nothofagus cunninghamii*) Source Tasmania Australia. Colour ranges from pink to reddish brown . A fine straight grained timber, can be machined to create thin (3mm panels) suitable for superstructures, planking, excellent steam bending timber. Takes finishes and oils well to a high polish . Have used it for a number of models other than ships, it would be a suitable timber for ship models. Sourcing may need some research. Used as floor boards in the house construction industry.

Huon Pine -(*Dacrydium franklini*) Source South West Tasmania, Australia. Colour, light cream to yellowish brown, softwood. Usually straight grained but can have beautiful birds eye figure, has a distinct odour. Easy to work with hand and machine tools. Steam bends readily, has an oily finish so some

research on adhesives may be needed . Accept finishes and oils well to a honey coloured sheen .Carves well and will hold moderate detail. Ideal for model ship building , however can be difficult to source and is more expensive than other timber species .

Hoop Pine -(*Araucaria Cunninghamii*) Source **. Australia.** Colour, white to pale yellow brown softwood. Generally straight grained of moderate strength. Easily worked with hand and machine tools. Not suitable for steam bending. Would be suitable for deck planking, ship deck furniture, mast and spars. May be suitable for planking when cut into thin section 2-3 mm

Ship hull made with some of the timbers noted.

Blackwood Australian - (*Acacia melanoxylon*) Source Australia**.** Colour, golden brown to dark brown (with variations). Grain is generally straight with some interlocking with mild to high fiddleback features. Can have a slight blunting effect on tool edges. Very good for steam bending . The timber takes finishes and gives a high polish . In thin section 2-3 mm would be suitable for planking, masts and spars and general deck furniture construction .

Queensland Silky Oak (*Cardwellia sublimis)* Source Queensland Australia**.** Colour, light reddish brown to dark reddish brown with a light fleck in the grain . Grain generally straight with prominent rays; texture is coarse, but even. Works reasonably well with hand and machine tools . A good timber for steam bending. Due to its "flecked grain" it would makes an unusual timber for decks/ planking . Suitable for deck furniture and other items.

References:

The following References were used in the compilation of the above data;

"**The Wood Handbook**" by Nick Gbbs.

"The Wood Magazine " USA

"**Practical Woodworking** " UK "

"Australian Woodworker" Australia.

Internet www.wood-database.com

Internet www.woodsolutions.com.au

40 years' experience in woodworking and scale modelling by the author .

AUSTRALIAN AND OTHER TIMBER SUITABLE FOR MODEL SHIP CONSTRUCTION

Ship Modelling Timber-Supply Sources Listed below is a selection of timber suppliers for the above listed timbers.

Note: This list is not extensive and contains sources which have been used by some society members. The CMSS has no commercial association with any of these suppliers and the list is for guidance only.

ACT Region .

Bunning s Fyswick, Belconnen , Tugeranong (refer to White Pages for contact details)

Monaro Timbers 16-20 Kealman Rd Queanbeyan West NSW Tel (02) 6280 6467

Fyswick Building Supplies 2 Whyalla St Fyswick ACT Tel (02) 6280 5377.

Thors Hammer 12 Mildura St Griffith ACT Tel (02) 6280 9900.

Turners Building Supplies 35 Collie St Fyswick ACT Tel (02) 6280 5776

A.J.A.A. Distributors 21-23 Bass St Queanbeyan NSW Tel (02) 6297 3666

Eastern NSW

Anagote Pty Ltd 144 Renwick St Marrickville NSW Tel. (02) 9558 8044

Trend Timbers 15 Railway Road North Mulgrave (Windsor) NSW Tel (02)4577 6847.

Cockatoo Timbers 63 mount St Dundurrabin via Dorigo NSW Tel (02) 6657 8122

The Woodage 235- 239 Old Hume Highway Mittagong NSW Tel (02) 4872 1618.

Mullimbimby Woodworks Ocean Shores Mullimbimby NSW Tel (02) 6680 4455 .

Queensland

Lazarides Timber Agencies 15 Hurricane St Banyo Queensland Tel (07) 3267 3899

Tasmania

Morrisons Sawmill The Esplanade Strahan Tas. Tel (03) 6471 7235 .

Tasmanian Speciality Timbers 12 Esplanade Strahan Tas Tel (03) 5471 7190

Western Softwood Sawing Harvey St Strahan Tas Tel (03) 6471 7110. ❄

Non-kit timbers tried in modelling.

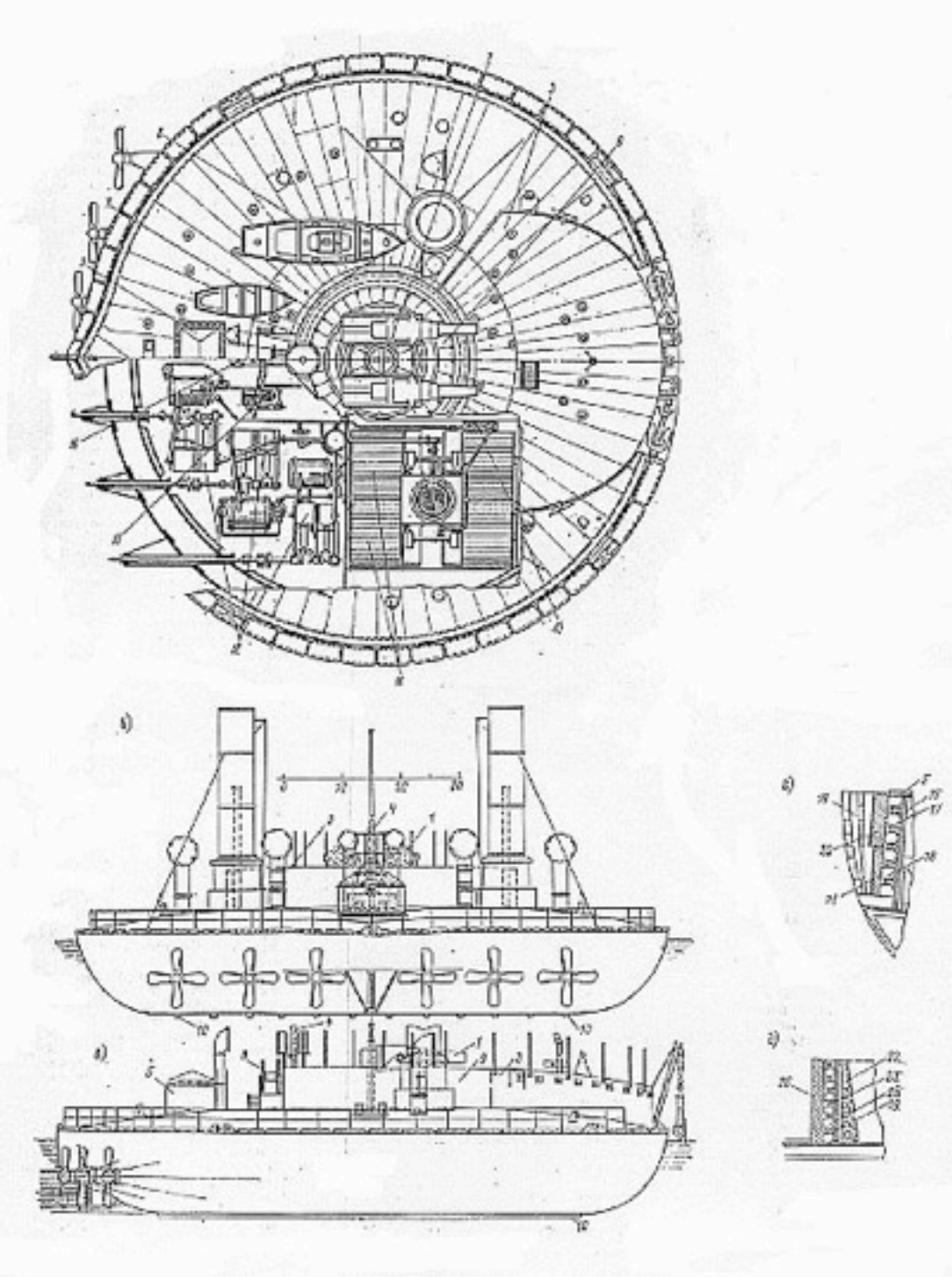
NORSKE LOVE

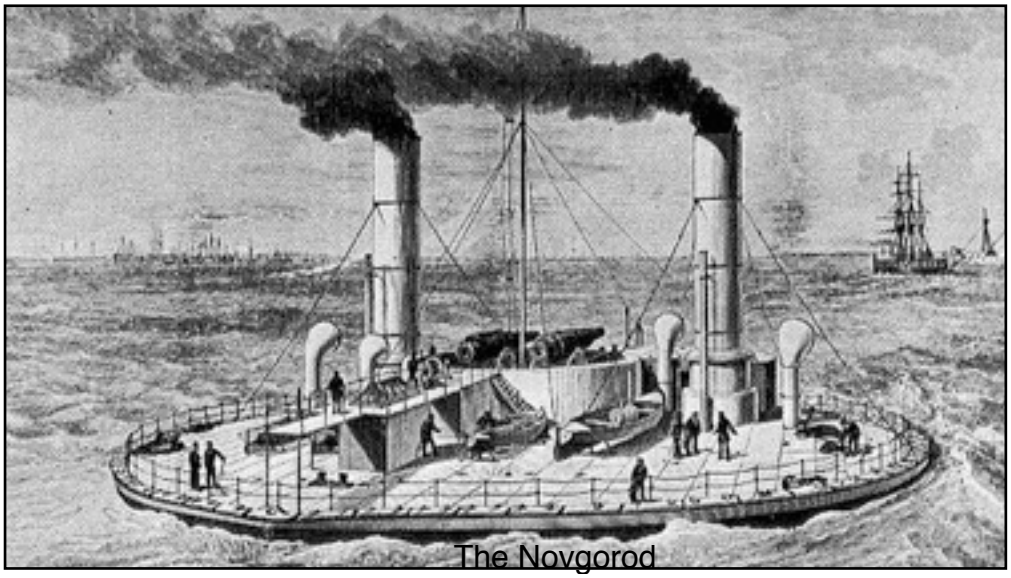
This fine model is looking for a new home.
Before it is offered for sale on eBay, its owner-builder John Bracht (in Canberra) is offering CMSS members 'first dibs'. John built the model from a Billings kit and completed it in 1995. It is a model of the18th Century Danish warship, Norske Love. The model is 1/75th scale and approximately 87 cm in length and 20 cm in width. It is a hull-only model without masts (just stumps), nor sails, and is mounted in a hand-crafted wooden display case which is included.

If you are interested, contact our Secretary, Bill Atkinson, for contact details.

Curiosity Corner

Here are the plans for what might look like a concept ship, but it was actually built. Elizabeth Hodsdon has been intrigued by the story and writes about her research into two Russian coastal defence vessels that seemed to have worked despite the unconventional idea of making them circular.





The Novgorod

SHIPS IN THE ROUND

Why a circular ship? Read on

by ELIZABETH HODSDON

In 1868 Scottish ship builder John Elder had put forward the idea of widening the beam of a warship to reduce the area to be protected. This would allow it to carry thicker armour and heavier guns than a conventional ship. This idea was supported by Sir Edward Reed, Director of the Royal Navy's Construction.

In 1869 Rear-Admiral Andrei Alexandrovich Popov (below) developed this concept when the Imperial Russian Navy had a requirement to defend the Dneiper-Bug Estuary and the Kerch Straight. He altered the design by broadening the hull to a circle, and changed Elder's convex hull into a flat-bottomed one to minimise the draught. This was approved by General-Admiral Grand Duke Konstantin Nikolayevich in December 1869.

A small scale version, the *Kambala (Flounder)*, was built in 1871. She was circular, 24 feet (7.3m) in diameter. She had two engines of eight nominal horsepower each. Trials in the Baltic Sea off St Petersburg in April 1870 were considered a success. Tsar Alexander II nicknamed the type "Popovka" after the designer.

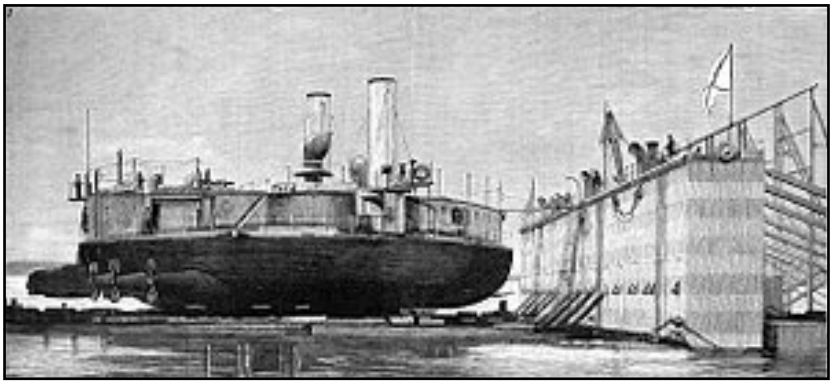
The original proposal was for four very heavily armoured ships with 11 foot (3.4m) draught, armed with 11 inch (279mm) guns. The General-Admiral selected the largest of Popov's designs for an ironclad of 151 feet (46 m) in diameter, with four 11 inch guns. The estimated cost was more than the total budget for the programme, so Popov had to scale down his design. On 24 October the Tsar approved his design for a ship 96 feet (29.3m) in diameter with two 11 inch guns.

The Treaty of Paris that ended the Crimean War limited the Imperial Russian Navy to only 6 corvettes in the Black Sea. That meant that any ironclads built for Black Sea service had to be built in Saint Petersburg, disassembled, then shipped to Nikolaev for reassembly.

Novgorod was the first full-size circular ship. Construction was commenced on 13 April 1871 at St Petersburg. As there was no rail line between Saint Petersburg and Nikolaev, the components had to be railed to Odessa, where they were transhipped on to barges and steamers. The boilers were too large and had to be shipped by freighter from the Baltic Sea to Odessa for transhipment. *Novgorod* was finally launched on 2 June 1873. Her guns were mounted in September and she entered service the following year.

During construction *Novgorod's* diameter was increased to 101 ft (30.8m) by the addition of wood and copper sheathing to reduce biofouling. She had a maximum draught of 13ft 6in (4.1m) and only 18 inches (46cm) freeboard. Power was from eight

horizontal cylindrical boilers. Six compound expansion steam engines each drove one of the six propellers. Those gave her a speed of around 6.5 knots. Armament was two 11 inch (279mm) rifled muzzle-loading guns. She had a complement of 151 officers and crew.



The Russian Imperial Dock

The ship had a waterline belt of wrought iron that covered the hull, and extended from 18 inches (178mm) above the waterline to 4 ft 6 in (1.4m) below it. The armour was in two strakes, each 3ft (0.9m) high. The upper plates were 9 in (229mm) thick, the lower ones 7 in (178mm). The armour was backed by 9 inches of teak reinforced by interlocking channel irons. *Novgorod* was the first Russian ironclad to place her armament in a barbette mounting. It was 7ft (2m) high, and constructed in the same manner as the upper strake of the belt.

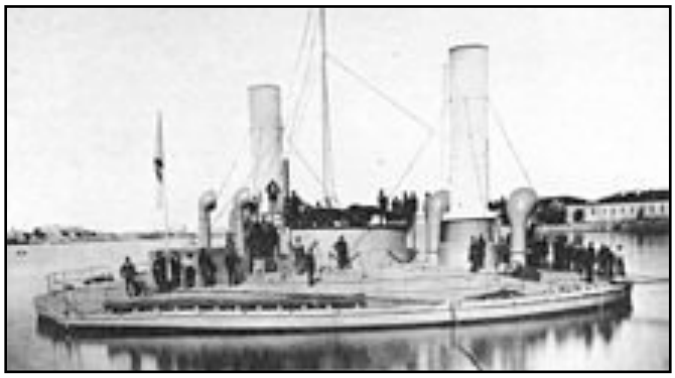
Novgorod was a stable gun platform, with a smooth roll that rarely exceeded 7 or 8 degrees. The two guns were mounted on separate revolving turntables that could be moved independently or locked together. Each turntable took two or three minutes to rotate 180 degrees. Trials in November 1874 showed that the locks for the turntables were too weak, so that the gun's recoil could cause them to rotate. That would have been disastrous if they had swung into line with the wheelhouse or funnels. The locks were reinforced, solving the problem. Even so it lead to the myth that the whole ship rotated when a gun fired. A couple of stories said the ship would rotate at a dizzying speed, or fast enough to cause vertigo. In reality the ship took 40 to 45 minutes to make a full circle.

The ship was difficult to steer in bad weather because of the hull shape, and unable to make much headway. As each of her engines drove a single propeller, the solution was to use the engines for steering and leave the rudder fixed. That put strain on the engines, which gave constant trouble.

Over the years various modifications were made to the ship, and two Hotchkiss five-barrelled revolving cannon added.

Novgorod was stationed in Sevastopol throughout the 1880s. She was reclassified as a coast-defence ironclad on 13 February 1892. By 1893 she was in poor condition. She was turned over to the Port Authority of Nikolaev on 1 May 1903 and stricken from the navy list on 3 July. After that she was used as a storeship. She was sold for scrap in December 1911.

The second Popovka was *Vitse-admiral Popov (*below*)*. This was originally to be named *Kiev*, but

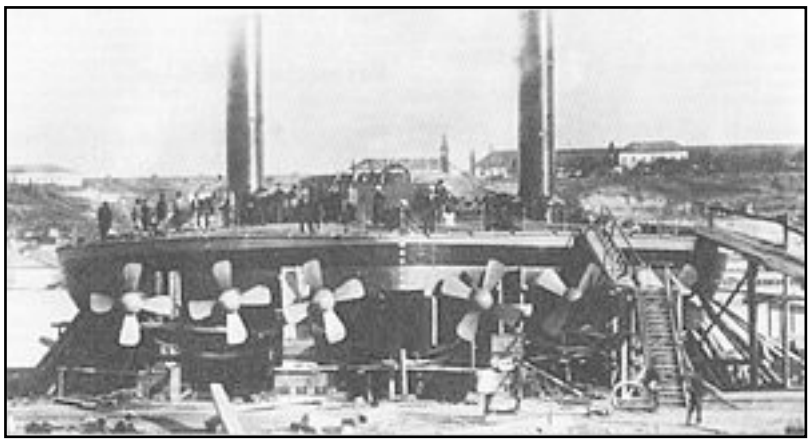


was re-named by the Tsar after the designer. This time the building took place at the Nikolaev shipyard. Construction began in January 1872. Due to changes necessitating partial dismantling, and delays when many of the workers were transferred to the *Novgorod*, she was not launched until 7 October 1875, and completed 1876.

Unlike *Novgorod*, *Vitse-admiral Popov* was not perfectly circular. Her length was 126 ft 10 in (38.7m) and beam 117 ft 8 in (35.9m). She had a draught 14ft 9in (4.5m), but the propellers projected below the hull to 19ft (5.8m). Freeboard was 18 in (46cm), the same as *Novgorod*.

The ship had eight vertical compound-expansion steam engines, with steam provided by twelve cylindrical boilers. The two inboard shafts were driven by two engines each, while the

"In the final analysis, the Popovkas seem to have been relatively effective coast-defence vessels..."



remaining four engines each powered a single propeller.

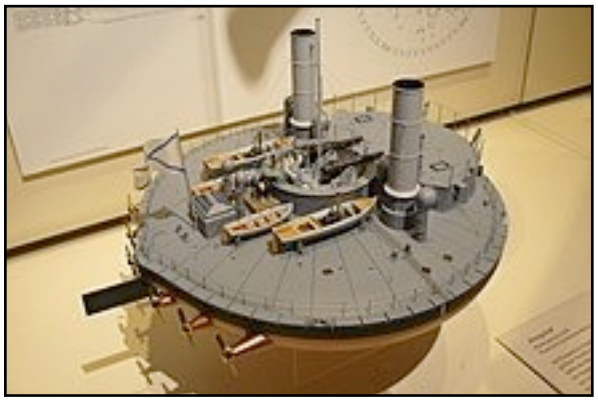
The armour of the *Vitse-admiral Popov* was considerably thicker than that of *Novgorod*. The ironworks couldn't roll armour plates more than 9 inches (229mm) thick, so a "sandwich" was made. The outer belt armour was separated by 9 inches of teak reinforced by channel irons from the inner armour layer which in turn was backed by another 9 inches of teak and channel irons. The upper strake of the outer armour was also 9 inches thick and the lower was 7 inches (178mm). The inner armour was 7 inches thick, which gave a total thickness of 16 inches (406mm) at the waterline and 14 inches (356mm) below it. The armour of the barbette was the same as the upper strake of the belt armour.

Armament was two 20-calibre 12 inch (305mm) rifled muzzle-loading guns. For protection against torpedo boats there were four 4-pounder 3.4inch (86mm) guns mounted near the funnels. At some stage a telescoping spar torpedo was fitted.

Vitse-admiral Popov had 19 officers and 187 crewmen. She was reclassified as a coast-defence ironclad on 13 February 1892. By then two 37-millimetre (1.5in) quick-firing five-barrelled revolving cannons had been added.

Vitse-admiral Popov's ending was the same as that of the *Novgorod*. She was stricken from the navy list in July 1903, used for a storeship, then sold for scrap in December 1911.
A familiar story was the cost over-runs. The original plan was for four ships, for which the total programme cost should not exceed 4 million rubles. Popov's first design was estimated to cost 4.14 million rubles, more than the total cost of the programme. The design was scaled down, and estimated to cost 1.94 million rubles. *Novgorod* came in at 2.83 million rubles, excluding armament, and *Vitse-admirar Popov* at 3.26 million rubles, again excluding armament. No further Popovkas were built.

The naval historian Stephen McLaughlin summed it up: "In the final analysis, the Popovkas seem to have been relatively effective coast-defence vessels; certainly their combination of armament and armour could have only been carried by a conventional ship of much greater draught. Their faults – and they certainly had faults – were exaggerated by critics, both in Russia and abroad, and have left as a legacy stories of uncontrollable ships designed by incompetent men."



Model of the Novgorod

Looking at the internet there are model kits available for the Popovkas. A model of *Novgorod* is on display at the Internationales Maritimes Museum Hamburg. One was displayed at a CMSS expo a few years ago. From memory it was the *Novgorod* and by its position in the hall it was probably made by a member of the ACT Scale Modellers.

❄

Copper tape provides answer to sheathing bottom

MATT SHEPLEY shares his experience

Pinwheel, adhesive copper tape did the job

Having recently completed my first kit (Mary Byrne by Modeller's Shipyard), I decided to dive headlong into a 'semi' scratch build of a simple schooner that's of historical interest to me. One of the many new challenges faced was a desire to follow historian advice that my chosen vessel was 'definitely copper plated'. I had seen this on various models, but knew little of its application, so I took a crash course by reading a few 'how to' guides and even watching an instructional video on the subject.

One thing was certain…I was not excited about using the mass-produced copper plates from the cost, time and super-glue perspectives. Also, my chosen scale didn't really suit off-the-shelf plates, and I am not a fan of their often out-of-scale plate-thickness and uniformity, so I looked for another solution. I had found some discussion on adhesive 'copper tape' and a quick visit to eBay found this was available in various sizes at bargain prices. A $6 investment soon had a 20m roll of 8mm tape (matching my scale and desired appearance) on its way to me.

The tape itself is ultra thin, with only a very slight lateral flexibility. Following some internet sourced advice, I tried both cutting/applying it as individual plates and also in strips 'three-plates' long. Both methods were exceedingly fiddly, and resulted in unsightly joins. It was also going to take an age. Finally, I resorted to applying it in full-length runs, only terminating where the hull shape did not allow a natural looking lay, with successive strips just overlapping the lower – which the tape allows with ease. After each run's application, I started amidships for each applied strip, and using a simple paper ruler I 'scored' each plate junction with the dull edge of a scalpel to create a fake, but very convincing, appearance of individuality. Complex curves at the bow and stern were the only places where individual plates were cut and applied, and in these areas I was happy with the result. Nailing was achieved by careful application of a dress-makers 'pattern' or 'pin' wheel – unfortunately I only had one wheel, so all my nailing is the same separation – a choice of wheels would have given me close nailing along the lower and trailing edges and wider spacing down the centre nail lines, which I believe is the typical pattern used.

The fragile nature of the tape naturally leads to a 'beat up' appearance as you work, adding to realism. I was also able to dull the unnatural shine by light application of an aging fluid, but I have also read that you need to be careful not to overdo this, and that left alone the copper will age 'gracefully' over time.

The advantages of this method include:
Cost – my 13-inch hull was plated for approx. $3
Time – once I'd determined my method, I plated the hull in a few hours
Scale – tape is available in many widths, is wafer thin, and can be marked as you feel appropriate
Realism – actual plate overlap, human-applied appearance rather than machine stamped

The real thing - applying copper sheathing to USS Constitution. Not that pretty really.

Biggles and Hornblower Inspiration For Modelling

I'm not sure what kindled my interest in model ships. My early reading was mostly Biggles and Hornblower so it isn't surprising that I soon developed a passion for aircraft and aviation. Hornblower took a lot longer to kick in. My first model was an Airfix Yak-9 and I modelled aircraft (with occasional 1/30 scale Historex figures) for the next 30 years, in between interstate moves and other interests.

I was born in Subiaco Western Australia. My father was employed in the Commonwealth Department of Shipping and Transport in the then Mercantile Marine Office. The MMO was mostly concerned with dockside and employment issues in Australian shipping, and associated light-station manning, maintenance and supply. On occasion, I was able to accompany Dad during his duties visiting ships dockside and we were frequent visitors to the light-stations on Rottnest and South-West WA. My grand-fathers were both capable carpenters, Mum's father a professional and Dad's a gifted amateur. It was he who built my older brother's two-man kayak which I was occasionally allowed to use. My grandfathers and father built our first house (including moulding and drying the bricks), first finishing a large work-shop where we lived until the main residence was complete.

My Mother was a primary school teacher and we, my older brother; twin sister; and myself, were left much to our own devices after school and during school holidays. The house at Attadale, South of Fremantle, was one of the first built in the area and we were engaged in exploring the surrounding bush and swimming at Point Walter and Bicton, both within easy cycling distance of our home. A special treat was staying at my grand parents' home in Cottesloe and late-night summer swimming at Cottesloe Beach or Peppermint Grove on the Swan estuary.

In 1962, Dad was promoted to a position in the Dept's Vic/Tas region and we moved to Hobart. I have a lasting memory of damming the creek below one of our residences, creating a pond deep and wide enough to float a half 44-gallon drum cut lengthways. Two years later Dad was promoted to a position in Port Kembla and we re-located to Wollongong. Towards the end of our two-year stay there, he finished building an 18-foot runabout with an in-board motor but unfortunately it started to take on water on the maiden voyage. Since we were soon to move to Melbourne, the boat was handed over to a friend in Wollongong for repair and we never had the use of it. In Melbourne, Dad was initially employed in Sea Transport Policy Division, but was eventually able to find his preferred job, Shipping Superintendant in the Melbourne MMO, again dealing with manning issues in Australian shipping. I completed my schooling at University High in Melbourne and enrolled in a biological sciences degree at LaTrobe University. In my first

end-of-year uni vacation I found a job in a fibre-packaging factory but only lasted two weeks before management decided I was surplus to requirements. Fortunately I was offered four months as a relieving light keeper at Cape Nelson, just East of the SA/Vic border, on the strength of my extensive small-boat experience with my brother's kayak, 44-gallon drum handling and the occasional trip as second-hand with the Rottnest Island light-station's row boat. The following year I was offered three months as relieving keeper on Deal Island, the largest of the Kent Group islands in Bass Strait. Deal Island was a popular way-point for yachts returning from Hobart after the Sydney-Hobart race and the beach parties were memorable. Although I would have been happy to have found a career in the light service, I wanted to finish my university degree and, in any event, the Dept was well advanced in the automation program, eliminating the need for permanent light keepers.

I had started playing Rugby in Wollongong, the crash and tackle variety since Union wasn't offered at Wollongong High. On moving to Melbourne, I played with my school team and Powerhouse at Albert Park Lake until uni when I played with the university team until it folded for lack of players. I then played with the Eltham club, aspiring to the geriatrics team which was formed with, as one of the older players said, 'the aim of maintaining a low standard so that anyone can play'. Training was forbidden and tackling players older than yourself was frowned on. Younger players were required to supply the half-time Port to go with the oranges. I hung up my boots with the move to Canberra in 1981.

My university performance hadn't been stellar with bare passes in all subjects. In my final year however, I developed a keen interest in neuroscience, specifically the biological bases of learning and memory, and my final year results were sufficient to permit an honours year and subsequently a PhD. My thesis topic was neurotransmitter influences on memory in day-old chicks, a cheap and easily available animal with well-established single trial learning ability. This entailed behavioural studies and biochemical determination of drug effects on neurotransmitter metabolism. While I enjoyed some aspects of academic life, I came to the view that I didn't have the stamina to thrive in a nomadic life seeking one short-term university position after another, particularly since the emphasis for junior academics was likely to be on teaching rather than research opportunities. In 1981 therefore, I accepted the offer of a commonwealth public service job as a research officer.

My initial placement was in Sea Transport Policy Division of the Dept of Transport with a short-term shift to Coastal Services Division. My only assigned task in Sea Transport Policy was counting shipping containers off-loaded from the four Russian ships engaged in the USSR-Australia trade, presumably to foil the fiendish Soviets from smuggling spies and espionage equipment into Australia. The collection of historic ships I was shown in my induction course, and the large-scale model of the Endeavour displayed at the National Library around this time, probably sparked my interest in model ships. I completed my PhD thesis in 1981. In March 1982, I was appointed to Aviation Medicine Branch of the newly reformed Department of Aviation, heading the research cell. Aviation Medicine's bread-and-butter work was issuing medical clearances for Australian civil flight crew and Air Traffic Controllers, but it had broad interests across many areas, including crash injuries and fatalities, food standards for airline meals; occupational health and safety; and various human performance issues in civil aviation. Perhaps the appointment of someone whose field was learning in flightless birds to an aviation safety regulation role was a particularly astute decision by the personnel branch. Initially I had little to do other than helping to re-locate and re-establish the branch in its move from Melbourne to Canberra and I enrolled in a part-time graduate diploma of neuroscience, completing a thesis on aspects of visual impairment in Multiple Sclerosis patients in 1985. I also took out a student pilot's licence but after about 40 hours air time I concluded that owning my own house was a more practical achievement. Flying at the time was costing $150/hour for just a two-seat training aircraft, about three times the cost of domestic airline tickets, and a private pilot still had the cost of surface travel once he had landed so I put my income into purchasing a house at Murrumbateman.

Research in AvMed included work on the uses of colour coding in aviation with the intention of relaxing the vision standards for colour-confusing flight crew and Air Traffic Controllers as far as possible, consistent with safety; development of a new hearing test (replacing the old generic material masked with DC-3 engine/propellor noise with aviation-relevant material and more realistic background masking); relaxation of the neurological standard for some forms of epilepsy; occupational safety in agricultural aviation; examination of injury/fatality causes in aircraft accidents and reduction of the injury potential; and investigation of replacing the paper-based medical assessments with a computer system (what was the economic and operational justification, what would such a system do and how?).

In 1991, Aviation Medicine's functions were limited to issuing medical certificates (ie clearances), the research positions abolished, and I found employment as development officer for the proposed computer-based medical records system, and later as the system manager. Until 1996, I was employed polishing the system (knocking the rough edges off) and developing new features for it. I then left Aviation Medicine, working on psychometric evaluation of flight crew and aircraft engineer theory examination questions and modelling air traffic, based on airways revenue-paying aircraft movement data. I was recalled to AvMed to help develop the Y2K-beating replacement for MRS in late 1999. Research towards detection of latent cardiovascular disease in professional pilots using predictive factors occupied much of my time with the twin aims of preventing in-flight sudden incapacitation and extending the useful careers of highly trained pilots who would otherwise be retiring early. Early detection of disease enabled resumption of their flying life after recovery from corrective surgery. After taking on the additional role of system manager for the flight crew theory examination computer system in 2001, I retired from paid employment in 2013, growing Saffron on a property on the Western bank of the Murrumbidgee river near Michelago until creaking and stiff lower joints and spine made bending and kneeling too difficult. My time now is occupied with my dogs, reading and modelling, with the occasional stay in the caravan at my property near Michelago.

My modelling interests are 1/72 scale aircraft, civil or military, preferably pre-1950 but I like anything of unusual shape, and flying boats are the last word in aeronautical pulchritude. I began modelling old ships partly for the different skills required after years of plastic kits. My preferred ship scale is approx. 1/50 although that precludes most modern ships. Particular interests are ancients (Egyptian; Phoenician; Roman); 18-19th Century ships around Australia; and East Indies shipping. I have dabbled in 1/30-1/32 scale figure modelling. A work-shop is an aspiration - my modelling is done on the dining room table. Limited shelf space is a major problem.

It's often said that modelling is a dying art. I think that's pessimistic if you consider the number and variety of kits available, growth in accessories and tools, the development of 3-D printing and the number of magazines still being published. Locally modelling may be going through a 'dry' spell but worldwide it's as active as ever. Perhaps building models is a hobby that we grow into (or come back to) as we become less active and less engaged in the noise and bustle of youth and professional work. I think a higher-profile venue such as the national museum has merit if it can be done but overall I like CMSS as it is. ❄

Duncan Holmes

HUIA Repairs Completed

Bob Evans Reports

The "Huia" repair has now been completed and sits on its new base. The project entailed repairing broken rigging, making a new base and supporting cradles and of course the usual removal of accumulated dust.

The decision was taken not to try and enhance the original model, but rather to restore it to its original "as built" configuration. This was done with a couple of exceptions, namely the use of vinyl lettering for the vessel's name on either bow and the vessel's name and Port of Registry (Auckland) on the stern. This replaced the hand-written original work which had become somewhat faded. The other renewal is the base itself which had become somewhat warped. We suspect this was due to the underside of the base not having been varnished. This has been rectified on the new base. Yet to be added is the name and vessel information to be fixed to the base.

The project has been a combined effort and thanks are due to Matt in the first instance for instigating the project, to Allan of the Murrumbateman Men's Shed for supplying and sizing the timber for the base, to Bruce G of the CMSS for the new bowsprit and staining of the base and to yours truly for a few repairs and the rigging. Why do I always score the rigging!?

The final stage will involve Matt arranging the handover of the model, hopefully with some local media coverage and then crating the model for transport to New Zealand.

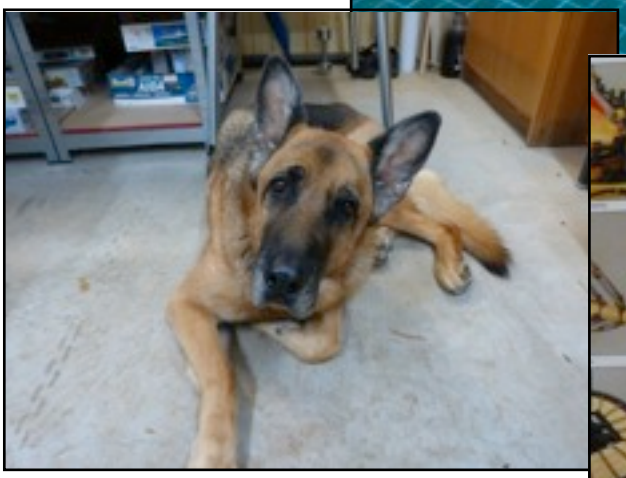
Hopefully by the next Newsletter we can report the safe arrival and perhaps a photo of "Huia" in her new home.

❋

Duncan Holmes

HMS Wolf Part 2 - Progress - Sort Of by Bob Evans

The more astute readers will note that progress since the previous Newsletter has been less than impressive, despite the input and encouragement from my other canine advisor, Mate.



This is largely due to the reduced modelling time I now enjoy and the sheer frustration of the build itself. I hasten to add here that the quality is superb, but as in Part 1 the frustration lies in the plan booklet itself and the location of parts on the sheets. The laser cutting as I have said is excellent; the problem, at least to me, is the sheer lack of any logic as to the parts' layout. I can take an age to actually find the part(s) required and then trying to figure out how it goes together.

The above extract from the instruction book will give you some idea. There are numerous parts to the wheel and whilst the pedestal is not so bad (once the parts are located!) the wheel itself is quite flimsy and can get out of shape easily. The hard part, at least for me and maybe I have missed something, is trying to figure out how to get all the actual wheel parts together without a means of centralising everything around the hub. The spokes are definitely shaped items but I have still been unable to locate part Z1, the spokes!

The photo shows the finished wheel in place. I wish I could say the mystery was solved - however not so. The pedestal is from the kit, but I managed to find a wheel of the right size in the spares box.

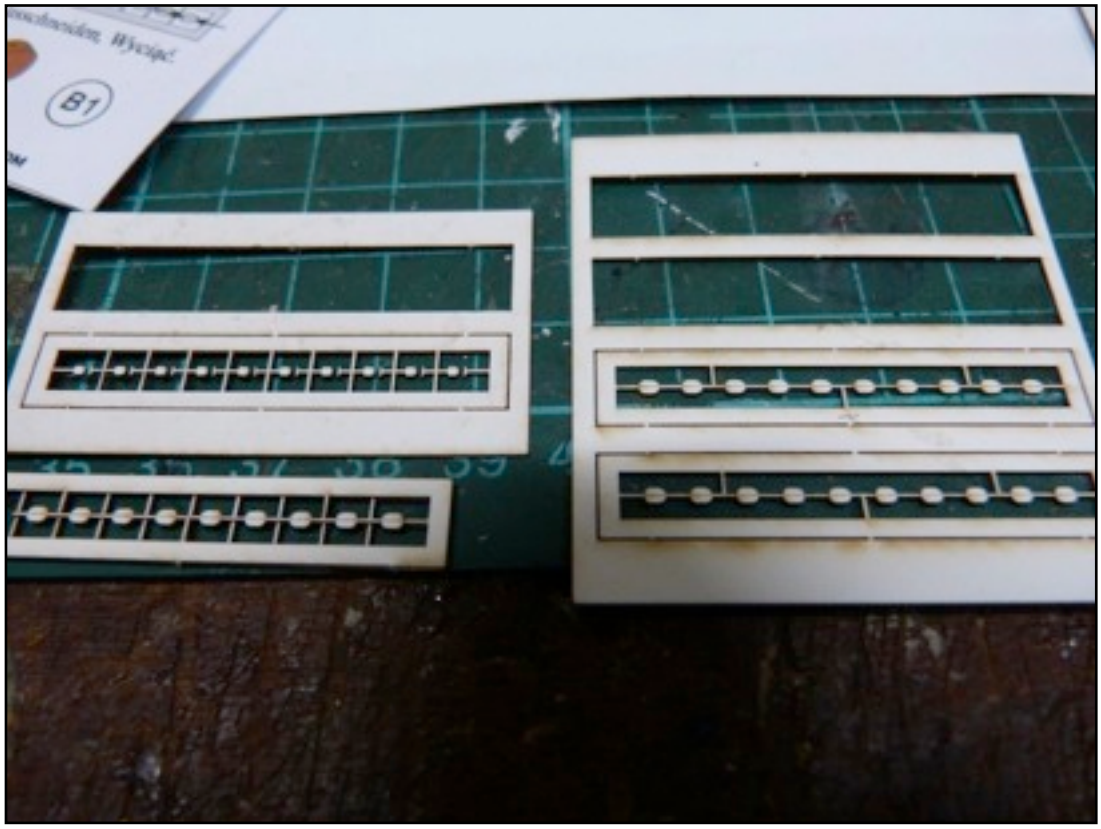
The bow sprit was reasonably straightforward once the instructions had been deciphered. The dowelling was of reasonable quality and thankfully there are no paper masts or spars to contend with.

The other exercise in patience is making the blocks of which I have so far made one - of hundreds! As the photo shows they are made up of a sheave sandwiched between two cheeks, the whole being less than 2mm in size, the idea being to build them and then cut them from the card frame.

In the photo (below), on the right is the card frame with the cheeks and on the left top is the sheave and below the completed structure. Good luck!

I did say that there was not a huge amount done. For a card model the "Wolf" is an excellent kit and hopefully it will match any similar wooden kit when I do eventually finish. More next edition.

Bob ❄



Send contributions to the Editor at:
bvoce@ozemail.com.au

Please send photos separately as jpgs (not embedded in copy).