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The BoatCraft Team have assembled a list of possible projects as thought starters, where they have the relevant plans and usually personal experience in a similar project. They are happy to help you from the "Thinking about doing something" stage to final finishing tips and deciding on paint colours.

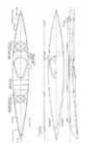
PROJECTS:

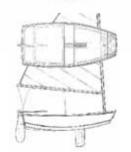
- · Small dingy / tender
- Canoe
- Kayak
- · Water Rat (canoe / kayak)
- · Goat Island Skiff
- Handy Punt
- · Stand Up Paddle Board
- River Table
- Bench top



Ian Phillips

"I like boats, and we like to talk about boats! I built my first boat when I was a teenager and here I am still at it years later!"





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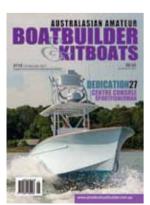


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FRONT COVER:

Dedication 27

Centre Console Sportsfisherman

from Dudley Dix Designs cover photo Thomas Spencer of Fish Hunt Photo

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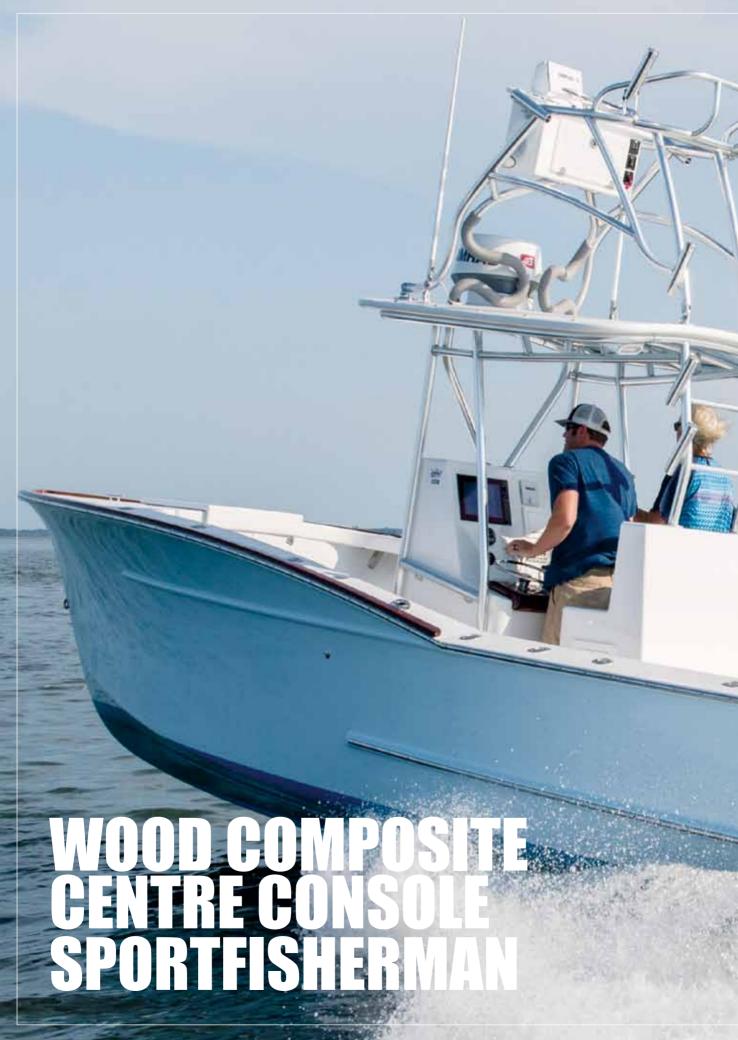
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by **DUDLEY DIX**

I drew the Didi 38 and Paper Jet designs for myself and thoroughly enjoyed sailing those two boats, perfectly suited to my own needs at the time. The next best thing to designing for one's own use is to do so for a close friend or relative, which still allows regular experiences of the resulting boat.







n this case the client, Kevin Agee, was my newly acquired son-in-law. We developed a close relationship through the design process, finetuning the hull to local sea conditions at the mouth of Chesapeake Bay and to his styling preferences. That relationship grew further while he built his boat as an amateur builder, with me helping him weekends. It was his project and I was there as an extra pair of experienced hands, to help with the more difficult parts of the build and generally apply elbow grease liberally where needed. Other friends and family also helped when many hands were a benefit, like glassing large areas and turning the hull over. The whole process was very satisfying, resulting in a boat that is way above normal amateur standard.

Kevin's previous boatbuilding experience was building the prototype of the Inlet Runner 16 Garvey that I drew for him a few years earlier, followed by an Argie 15 sailing dinghy for me. Both of those boats are fairly basic plywood stich-&-glue designs, so the Dedication 27 was a very big step up in size, technique and overall commitment. But the experience of building

ABOVE LEFT: First time afloat, to test flotation before bottom paint. Floating exactly as intended.

ABOVE RIGHT: Building the leaning post and live bait well, using pre-formed plywood radiused corner pieces.

OPPOSITE: We collect the Cedar, Douglas fir and plywood for hull construction, from Chesapeake Light Craft in Annapolis.







those two boats gave him the experience needed to produce high quality finishes on this one.

The aesthetic of this design is my interpretation of Carolina style. We all have our own ideas on the features needed in a design, so there are subtle and sometimes not-so-subtle variations from different designers drawing boats to similar concepts. The extreme bow flare and very full bows at deck level normally seen on Carolinastyle sportfisherman designs are a bit unpleasing to my eye, as well as contrary to the performance and seakeeping requirements of the boat. The added weight from those features so far forward will aggravate pitching when going into a head sea, also contributing to pressing the bow down when running into the back of a wave downwind. The bow has to be very deeply buried into the back of a wave before the extreme upper flare can lift the bow out. I drew a bow that has enough flare to throw off spray upwind in a chop and lift the bow over waves downwind, while also being easier to build.

LEFT FROM TOP: The Douglas fir stem was laminated over a Mylar pattern. The scarph to the keel is shaped while fitting the stem.

Completed motor bracket.

The transom doublers ready to be laminated over a cambered former. The two layers of the transom will go over these doubler layers. The slots are for the gussets that tie the motor bracket into the internal structure.

The bow flare transitions smoothly through to a nearly straight topside at the sheer break, then into a subtle tumblehome at the transom. The transom is vertical, radiused on plan, and supports the integral outboard engine bracket. The high freeboard of the bow curves down to the sheer break. Aft of that the side deck is at a comfortable fishing height around the cockpit.

Underwater, the bottom is moderate in all respects, with no extreme features that might sometimes make her respond unpredictably to odd sea conditions. It is shaped to get onto plane quickly, fairly fine in the bow for a soft ride, twisting into a moderate V of 15° at the transom. There is one pair of planing strakes, at mid-width of the bottom panels.

Under the raised foredeck is a small cabin, with toilet and two shelf seats. The centre console and leaning post contain all controls, electronics, electrics, secure storage and live bait well. The aluminium tower,





RIGHT FROM TOP: Cockpit sole framing, with gutters for flush deck hatches. The large opening is for the fuel tank, which will be covered by a flush screw-down panel. The PVC pipes are ducts for cables and pipework for controls, steering hydraulics etc. The blue tape in the gutter at bottom right is covering the drain openings to keep out sawdust etc. during construction.

Foredeck framing and interior of cabin.

Framing the motor bracket. The gussets pass through the transom and are bonded to the hull girders and keel.







TOP: Dedication heading out from harbour onto Chesapeake Bay. Image Thomas Spencer of Fish Hunt Photo.

ABOVE: View of side deck, with bright-finished Sapele Mahogany toerail, fuel filler, pop-up fairleads/cleats and multiple rod holders. The removable bait board is a product from our Australian agent and kit supplier, Stainless Boatworks, dropping into a pair of vertical rod holders.

containing duplicate controls and electronics, was designed and built by a specialist fabricator. Against the transom are a large insulated fish box, with storage lockers in the guarters and through-transom cockpit drains below them.

This is a wood/GRP composite boat, with most of the construction done in plywood. Eggcrate detailing is used for the bottom framing system of bulkheads and

ALL OF THE STRUCTURE IS SHEATHED WITH BIAXIAL GLASS IN EPOXY, 600G/SQM ON HE OUTSIDE OF THE HULL AND 400G/SQM EVERYWHERE ELSE, INSIDE AND OUTSIDE

longitudinal girders. It has a laminated internal keel on centreline, using conventional wood construction detailing. An external keel runs from the forefoot through to the transom, to help tracking when running downwind in a chop.

The bottom is two layers of 9mm plywood and sides are 20mm bead and cove Cedar strip. The chine flats are also laminated from bead and cove Cedar strips. The cockpit soles and decks are designed for 12mm plywood but Kevin chose to build the decks with lighter Coosa foam board. The displacement outboard engine bracket is also all plywood, heavily gusseted through the transom onto the girders and keel. The bracket is proportioned to take either a single or a pair of motors.

Timber for keel, sheer clamps, stringers etc is Douglas fir or other timber of similar density and strength characteristics. All of the structure is sheathed with biaxial glass in epoxy, 600g/sqm on the outside of the hull and 400g/sqm everywhere else, inside and

outside. The outer sheathing is doubled over the chines by overlapping the bottom and side laminates over each other.

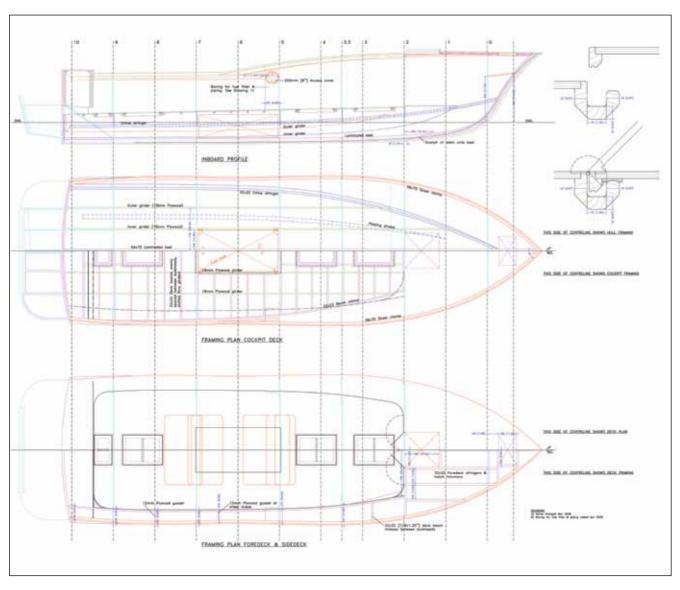
Assembly of the hull is done over a combination of

permanent and temporary bulkheads, which are supported on temporary legs cut from cheap plywood. in turn supported by timber rails bolted to the floor. The transom and its doublers are laminated over a former then set up on legs as part of the hull framing.

The hull girders/stringers, two each side of centreline, are slotted through the bulkheads and span from hull

THE SEALED OUTER BILGE COMPARTMENTS CONTAIN DUCTS FOR PLUMBING AND CABLES, WITH UNUSED SPACE FILLED WITH FOAM FLOTATION MATERIAL

skin to the underside of the cockpit sole. The keel is laminated in place on the hull framework and the stem is laminated separately over Mylar patterns on a workbench or loft floor. The two are scarphed together in place on the hull framework.

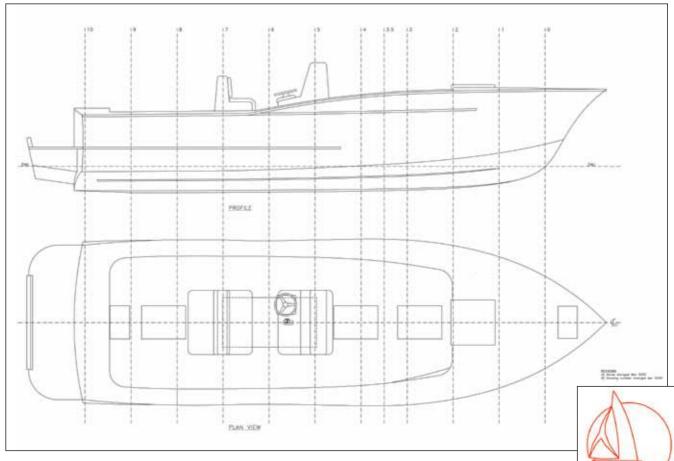




The plywood cockpit sole is supported by transverse beams that are slotted through the girders. The large flush hatches give access to bilge compartments with batteries, tanks, bilge pumps and seacocks. The hatch gutters are connected by pipework to drain through the transom. The sealed outer bilge compartments contain ducts for plumbing and cables, with unused space filled with foam flotation material.

The drawing package for this design includes all detailing needed for construction, plus full size patterns printed on 36" Mylar roll media. The patterns are for all

LEFT: Lower helm position. The hinged cover to the right of the throttle protects the ignition switch and a switch panel. *Image Thomas Spencer* of Fish Hunt Photo



permanent and temporary frames, bulkheads, girders, stem, transom, bottom panels and the major components of the motor bracket.

'Dedication' floats nice and level, right where she should. Powered by a single 300hp four-stroke outboard motor, she cruises comfortably at 17kts at 3000rpm, 26kts at 4000rpm and tops out at 41kts at full throttle. She has a soft ride in a chop, tracking well on all headings, is guick onto a plane and very responsive to helm and throttle. Overall, she does everything that her builder wanted and more, exceeding his expectations in all respects and attracting many compliments in the process.

There are more photos of this project in the previous issue, Australasian Amateur Boatbuilder / KitBoats magazine #114, in the author's article titled 'The Processes of Boatbuilding'.

CHARACTERISTICS

LOA (including motor bracket)	8.99m
Length of hull (bow to transom)	8.27m
Beam max	2.59m
Hull draft	0.41m
Lightship weight	2200kg
Loaded displacement	2900kg
Dihedral at transom	15°
Dihedral at Station	1.5-40°

South African born yacht designer Dudley Dix is a graduate of Westlawn School of Yacht Design. He has a wide range of designs, built by professional and amateur builders in 90 countries. The Dudley Dix Yacht Design office is in Virginia Beach, USA, with website at https://dixdesign.com Australian agent is Ron Jesche of Stainless Boatworks, with website at https://stainlessboatworks.com.au







This is the perfect entry level cruising power cat suited for family cruising. For an 8.5m LOA boat, it has a huge interior and large cockpit, that is seen in a much larger monohull.



he easily driven hull design allows the boat to be pushed long at a top speed of around 25kts and cruise speed of 14-18kts, powered by twin 90hp four stoke outboards.

The shallow draft gives options to get into places that other boats can't, and with the beaching skegs, can be sat down on the sand.

The proven CNC cut kit set build system makes for a very accurate build while reducing build hours considerably, making for a very fast and efficient build. This design in the Leech power cat range is suited for the home builder. Using marine grade Gaboon and Meranti plywood with epoxy e-glass laminates makes for a strong but lightweight boat.

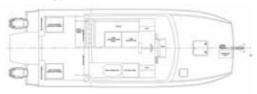
Features include full standing headroom throughout, a double berth forward, head and shower forward, quarter berths in the port and starboard hulls, galley in the saloon an L shaped settee with table that can form a double berth. The cockpit has a huge aft boarding platform, fishing rod locker, huge under floor storage. The aft cabin bulkhead has a large opening window and door which allows the saloon to open up to the cockpit to give great indoor / outdoor flow.

SPECIFICATIONS

LOA 8.500m BOA 3.000m

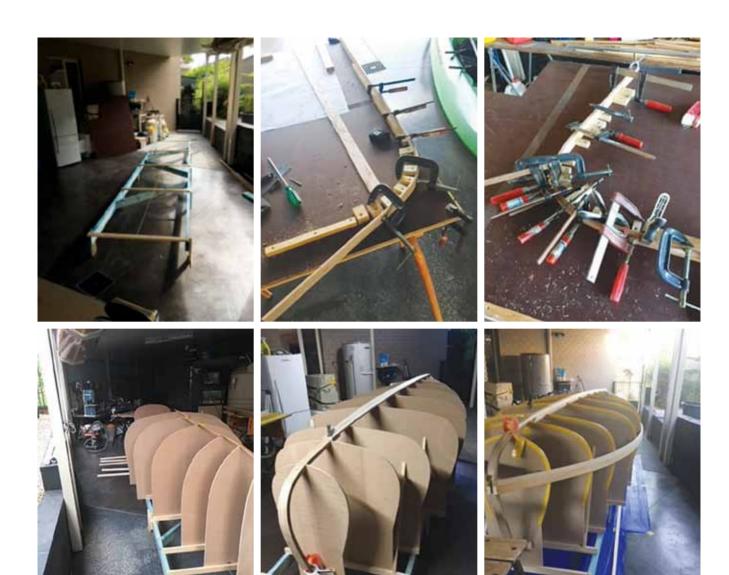


View showing plan of lower accommodations.



View showing plan of upper accommodations.

Contact Dan Leech for more information **Dan Leech Naval Architecture** www.leechboats.com dan@leechboats.com Ph +64 27 306 2423



DAVID PAYNE 16FT PUTT PUTT

by ROGER PATTERSON

I began building David Payne's 16ft canoe stern putt putt in June 2020, starting with construction of the building jig - a ladder frame in 90 x 35 treated pine.













avid's plans include full size templates for the mould stations which I made from 8mm MDF. The templates proved to be very accurate and required no adjustment to produce a fair shape which I found amazing.

The plans call up strip planking in Western Red Cedar 12mm thick allowing for fairing to finish at 10mm, with epoxy and fibreglass encapsulating the hull inside and out.

As an impoverished retiree I opted for Hoop Pine as a substitute for WRC (supplied by the friendly and professional guys at BoatCraft in Loganholme, Queensland).

Hoop Pine is denser than WRC and doesn't steam very well, but it's significantly cheaper. Since time is not an issue for me, the extra work Hoop pine requires is worth the trade-off. In addition, Hoop pine does not resist rot particularly well, but it is a beautiful timber to work with - straight grained and

THE TEMPLATES PROVED TO BE **VERY ACCURATE AND REQUIRED NO ADJUSTMENT TO PRODUCE A FAIR** SHAPE WHICH I FOUND AMAZING

completely free of knots. Since the construction calls up epoxy and fibreglass inside and out, the timber will not know it's a boat, so I'm comfortable with the compromise.

One year on, I'm starting to plan the turning over party.

The hull is strip planked from max beam to the keelson, deadwood and stern tube are installed. The plans call for the deadwood to be attached only with fibreglass







bi-axial cloth, but I decided to add keel bolts as insurance against any 'bumping the bottom' event.

I'm now planking from max beam to the gunwhale. (The hull has moderate tumble home in the aft sections, which adds to the lines of the boat).

A friend donated a well seasoned plank of Merbau – 60mm thick, 3m long, perfect for the deadwood. He decided to forgo building his garden seat to see it used for a 'higher purpose' for which I am very grateful.

David Payne's plans offer two versions of this boat – I've opted for the raised deck design simply because I prefer the lines. This complicates the build, but what's life without a challenge?

On the subject of challenge, planking the hull in the stern sections has not been easy due in part to the choice of timber, but the result is nevertheless pleasingly fair.

The engine suggested in the plans is a Blaxland-Chapman 'Pup' which produces some 3hp. Understandably finding an engine last made over 50(?) years ago is a bit like trying to find the proverbial needle. However in an amazing piece of luck I found a Blaxland Chapman twin with only four hours on it since a rebuild, so 7hp and some 30-40kg extra weight. I'm happy to have the extra horsepower but despite that doubt we'll be waterskiing behind the boat!

While the hull is upside down I've been able to accurately measure and build a cradle to support the hull once it's turned. It's so much easier to get a good fit at this stage.

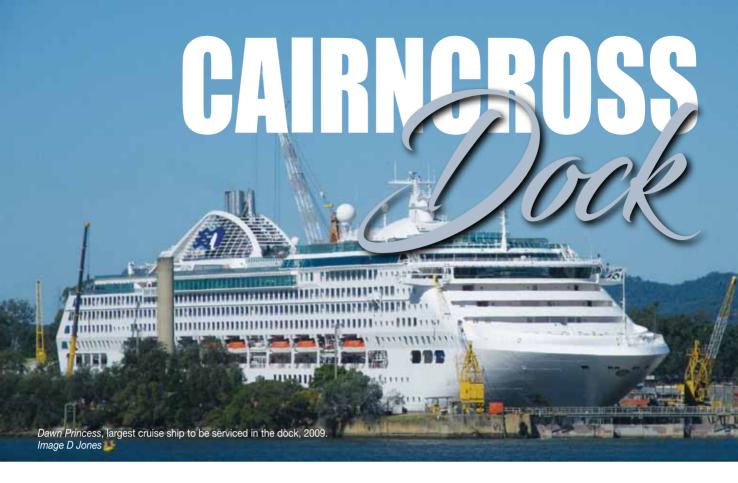
The most common question I get from bystanders is "what is the launch date?" – to which the answer of course is "when it's finished".

That'll be Christmas – I'm not predicting 'which' Christmas!

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by DAVID JONES. Queensland Maritime Museum

With the rapid advance of Japanese forces towards Australia early in 1942 Queensland found itself on the front line of the war. The Allied Works Council quickly embarked on a series of major military projects to properly equip Australia against this immediate threat. Biggest of these projects was construction of a dry dock in the Hamilton Reach capable of handling the largest ships that could enter the River.

he need for such a dock was not new, having first been raised in 1902 with agitation for it being renewed during the 1930s by a series of accidents to large vessels in the vicinity of Brisbane. But the pressures of war gave it new urgency. Approval was given and on October 19, 1942 design work was finalised for a dock 244m long, 33.5m wide and 9.1m deep to be built at Cairncross Rocks. Colmslie. Named Brisbane Graving Dock, it would be the second largest in Australia, exceeded only by Captain Cook Graving Dock then being built in Sydney.

Work was performed by the Civil Construction Corps using labour transferred from the Somerset Dam project. Led by Chief Engineer, Gerry Calder, rapid progress was made. Much of the excavation was performed by manual labour with up to 850 men employed. Steam engines, pumps and boilers were recycled from old, discarded vessels while the steel caisson was built by Evans Deakin.

The dock was completed in less than two years admitting its first vessels, three dredging plant, on June 22, 1944. They were quickly followed by an American LST to repair bomb damage suffered at Lae in the previous year.

For the remaining year of the war the pace of work continued undiminished at Cairncross Dock. Large warships from the United States, Great Britain and Australia entered the Dock for repairs and maintenance along with tankers, transports, merchant ships and hard-wearing dredge plant. Often vessels were docked two or three at a time, such was the capacity of this large dock.

Among the dockings were two aircraft carriers, HMS Unicorn and HMS Slinger, and two large American submarines, USS Narwhal and USS Nautilus. Recorded in the dock register at 26,782 tons, *Unicorn* was the largest warship dry docked in the port of Brisbane during the war. She and Slinger had been supporting operational carriers with repaired





TOP: Cairncross Dock under construction in May 1943. *Image QMM collection* **ABOVE:** Cairncross Dock at the end of its working career, 2014. *Image D Jones*

and replacement aircraft while the two American submarines had been making clandestine transport runs to supply guerrillas in the Philippines.

The pace of work at the dock did not slacken with the advent of peace. Vessels, both naval and commercial which had been worn down by constant war service needed refits. These included ships of the British Pacific Fleet and for its first two years of operation Cairncross Dock was in continuous use and registered 79 dockings.

With the end of hostilities Cairncross Dock was transferred from Commonwealth to Queensland

Government control, managed by the Department of Harbours and Marine. It was not long before it justified the need felt keenly in the 1930s, for a dock in Brisbane to repair ocean-going vessels suffering damage or distress.

The well-known coastal passenger ship *Kanimbla* struck the ground in a storm off Caloundra in June 1952. Her rudder and screws were damaged and her bottom plates rippled and perforated over such a length that she spent three months under repair in the dock.

During succeeding years the introduction of bulk mineral carriers on the Australian coast saw vessels using the dock increasing in size. However, improvements in dock technology combined with more efficient work practices overseas saw Cairncross Dock struggling to attract commercial business and failing to cover costs.

In 1967 approval was given to modernise the Dock with a range of major improvements. These were implemented over the coming years and included construction of a 1000' fitting out wharf, building a slipway for smaller vessels up to 2,500 tons,

refurbishment of the dock and constructing workshops on the property for contract engineering firms involved in ship repair.

Two large, 50 ton cranes were installed, one each on the dockside and the fitting out wharf, in addition to four five ton dockside loco-cranes.

But despite these extensive physical improvements, work practices and union action at the dock continued to hinder its economic recovery. Overtime bans, disputes and strikes still remained unchanged rendering Cairncross Dock unreliable in the eyes of ship-owners.

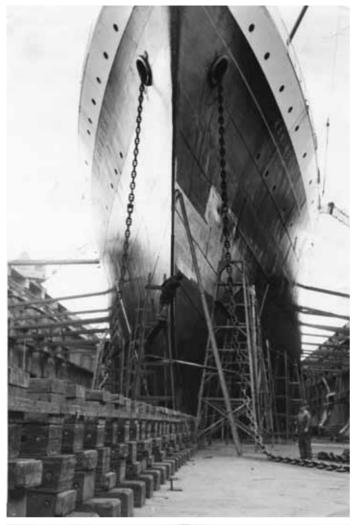


The trouble this could cause was underlined by the case of the bulk carrier Clutha Capricorn in 1974. With a length of 255.5m and 85,000 deadweight tonnage she was the largest vessel to use Cairncross Dock as well as being the unwilling subject of a major strike. During 1974 she was in the dock to repair hull damage and while underwater plating was removed a strike was called by metal works in a dispute with their employers. Unable to be floated out and moved Clutha Capricorn sat idly on her blocks for almost six weeks before the strike ended.

ABOVE: Forceful on the Cairncross slipway 2012. Image D Jones

Industrial disruption such as this together with excessive costs and delays in completing jobs caused the Government to close the Dock in 1987 and put it up for sale. It was purchased by a joint venture between Australian and Singapore interests under the name Keppel Cairncross Shipyard and after refurbishment, re-opened in August 1995.







Ownership changed hands again in 1999 when it was purchased by the Australia based Forgacs Group.

The list of dockings included an interesting variety of ships from the Australasian and south west Pacific region. Among them were the Antarctic research vessels *Aurora Australis* and *L'Astrolabe*, the Tasmanian ferry *Spirit of Tasmania III* and the New Zealand inter-island ferry *Kaitaki*, as well as the French Naval frigate *Vendemiaire* for a three-month refit in 2010.

The slipway also hosted a range of customers including the French high-speed catamaran ferry *Betico 2* on the slipway, the boutique cruise ship *Fantasea Ammari* as well as less spectacular vessels such as local traders and harbour craft.

Most impressive of the dockings recorded by Cairncross were the large cruise ships serving the Australian market. The first of these was one of Princess Cruise's vessels, the 48,000 ton *Sky Princess* which entered the dock in October 2000. After a \$10 million refit it emerged as P & O's *Pacific Sky*.

Largest of them all was the 77,441 ton *Dawn Princess* with a length of 261m which spent two weeks in the dock during June 2009. She was also the 200th vessel dry docked at Forgacs Cairncross and crews worked around the clock to complete a multi-million dollar make-over to enable her to resume her exacting cruising schedule.

ABOVE LEFT: Passenger liner *Kanimbla* repairing hull damage in 1952. *Image QMM collection*

LEFT: Aircraft carrier HMS *Unicorn* in doc during World War Two. *Image QMM collection*

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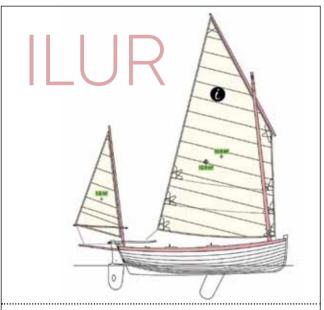
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However high costs in Australia made it hard to compete with large and more efficient dockyards in Singapore and in July 2014 Cairncross Dock was closed. Despite this major step the slipway was not included and it remains in operation as BSE Brisbane Slipways. But this time the closure of the big dock was final. Equipment and facilities were progressively dismantled, and the property put up for sale, rezoned for residential development.



New Zealand inter-island ferry Kaitaki being docked in 2013. Image D Jones



CNC kits for François Vivier, Bedard, Clint Chase, B&B, and more ...

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by **JONATHAN WALLIS** Annella, a truly beautiful six ton wooden 'Tasmanian eucalypt', most likely stringy bark, cray boat, built by Bernard Wilson in Triabunna and launched in 1956. Her proportions are perfect, 27.5ft overall, a beam of 9' and she sits beautifully in the water with a draught of 4/1'. She is powered by a Perkins 4108.

he is truly an eye catching vessel, and has recently been salvaged from a dramatic 'beaching', having been rescued by Odin Thom from Cyanet in a truly 'feel good' story of a man in love with the sea and now owner of his own cray boat. Proof that good things can emerge even from disaster!

On August 4, 2020 Annella broke her moorings and was washed ashore on the beach at Randall's Bay during a storm. Initially she lay over on her side, totally overwhelmed by sand and water, and she was indeed a sad and sorry sight. Her current owner, Van Dickenberg, contacted his shipwright friend Odin Thom to seek help in evaluating the situation and, if possible, and feasible, to salvage her.

After a quick look, Odin decided the damage was not terminal, and he saw the light, and that it was well worth it to try to get her out of the sand and back into the sea and to a slip.

"She had spat the caulking for at least two thirds of her beams and the engine and some keel bolts had

been loosened, the main problem was that she was completely filled with sand and water and was well and truly up on the beach.

About this time, Van, who already had the vessel for sale offered me the opportunity to take her on, and I made a quick executive decision on the spot and said "Yes"! I had known the boat since I was very young and I always had a soft spot for her.

We started straight away with the use of a five tonne excavator and water pumps to break the suction and get her ready to launch. A friend John Van Drunen agreed to help with his Gardener powered motor launch, we literally tried to drag her out on her side using any means possible, but despite our best efforts to remove the sand and water from her wet well and other compartments, it was really all in vain due to the popped seems.

Some good friends and I started work at 4am on August 11 digging by hand and pumping out her hull, at the same time. At sunrise the machine arrived and we started to make some progress, the excavator







Annella aground.





ABOVE LEFT: Annella plus Odin at Franklin. Image Jonathan Wallis
ABOVE RIGHT: Odin and Madi on board. Image Jonathan Wallis

managed to dig her free and pull her out of the hole she had sunk into the sand. With the excavator pulling and the boat towing, we finally we got her off at 2pm, high tide. At one point the excavator had its exhaust under the water! A very dedicated operator to the cause, at one point I remember him yelling "hand me a fishing rod!" All this with a fire pump going flat out all the time to get the water out and keep up with the many leaks!"

They towed her around to Lindsay's Slip at Cygnet, and here the full amount of damage became obvious, plus the scope of the work required to fix it became readily apparent. Here Odin's training as a shipwright proved invaluable, with his ability to take on most of the work himself.

"I began the job immediately, that night, with the help of some great friends, we drained the engine sump and cylinders of salt water and with a quick and dirty re-wire (just to get things working) we had the engine running just a few hours after dark that night. Amazingly, the hull had withstood the grounding remarkably well and she had held her shape owing to her robust original construction. Amongst the seamlessly never-ending cleaning of sump oil and sand, I replaced the engine Log bolts and some keel bolts up forward due to them shaking loose on the beach. I re-caulked most of her hull with oakum, and finally began repainting and preparing her to go back in the water, the electrical system was an ongoing task.

There followed a succession of launching her into the water, then hauling her out and fixing those problems as they arose, such as the leaks in the wet well, that showed up, off and on for about three months.

Annella needed to settle back into her original shape, and we wondered at how sturdily she had been built, and how well she had survived. Truly, as a wooden boat, she had overcome things she should never have been asked to!"

And today, there she sits alongside the wharf at Franklin, looking literally none the worse for her experiences, everything operating in good order, thoroughly seaworthy and a testament to the professionalism of Bernard Wilson and his yard at Triabunna all those years ago, and also to the love and expertise of Odin Thom and his skills as a shipwright!



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Indeed, Odin Thom has had an interesting life that has led to him having the capability to salvage and restore this cray boat. He has always had a deep love for the sea and boats, it seems. His father is a renowned instrument maker in Cygnet where Odin grew up, specialising in beautiful hand-crafted harps. and his parents accorded him a wonderful unfettered childhood, 'mucking about in boats' at every possible opportunity. He began with a Mirror Dinghy (somewhat in the style of Sandy Mackinnon's Jack de Crow), until by the time he went into High School he was living on his own 20' yacht. He had even acquired and restored the 32' Kathleen, once the Governor, Sir Horace Tate's boat, whilst he was in years 9 and 10. "I worked every weekend, and any other time I could find, through High School at the Port Cygnet Slipway. and on leaving school after finishing Year 10, I started and completed my apprenticeship as a shipwright with Jeremy Clowes. I learned so much from him and

ABOVE LEFT: Annella on slip.

TOP: Annella – fixing up and painting.

ABOVE: Annella getting there.

enjoyed the experience hugely. He is such a great guy and an amazing mentor.

About then I had a friend, Matt Morris, who was working as Bosun on that beautiful Dutch vessel, Bark *Europa*, and the stories of his voyages and experiences on her really drew me in.

Europa is a steel-hulled barque, originally a German lightship, built in 1911 in Hamburg. Until 1977, she had served the German Federal Coast Guard as a lightship on the river Elbe, until, fortunately a farsighted Dutchman bought the vessel (almost derelict) in 1985 and in 1994 she was fully restored as a



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TOP: Annella fresh from the slip. Image Jonathan Wallis

ABOVE LEFT: Odin Thom coming ashore. Image Jonathan Wallis

ABOVE RIGHT: Odin working on engine. Image Jonathan Wallis

three-masted barque, retrofitted for special-purpose sail-training.

I was able to join her as a carpenter in Cape Town South Africa, and I completed a voyage to Ascension, Tristan da Cunha, and the Azores, doing two refits, one in Capetown, the next in the Netherlands. The time spent onboard was really life changing, it definitely shaped and affirmed the direction I wanted my career as a shipwright to take.

But I have always harboured a desire to have my own boat building and restoration business, and so I came ashore, and began working towards this goal.

I bought a Lucas Mill, allowing me to do on-site saw milling, and began tree felling, as well as some time building post and beam houses using all green Tasmanian timbers. And the business name came to mind 'Odin's Timberworks', all things timber. I also spent time doing youth work through restoration alongside the legendary Peter Laidlaw, painstakingly restoring the beautiful vintage *Mistral II* in Hobart.

And all along working towards purchasing a shed and setting up my own business. The opportunity to salvage *Annella* came up and I felt very ready for the challenge.

I met Madi six months ago and with her father and grandfather all cray fishermen she has a seafaring background, her mother was even named *Shiralee* after a cray boat! Madi shares my love for timber vessels, especially cray boats in her case! And she has been very helpful with some aspects of the repairs to *Annella*."

In conclusion Odin tells us that there may be some big changes coming up, as it looks as though he may be able to yet do a *Chaparral* style reconstruction of *Annella*, something he had only been able to dream of, in the near future, and we will look forward to continuing this story in future!



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Oar Plan

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Order both together within Australia, and we will make the deal post free. Both of lain's books are available from Boatcraft Pacific agents around Australia, and Boat Books, in Crows Nest, in Sydney



In The South by Geoff Heriot is a sly read, much of it reflecting a high level of study of the long history of the waters around and south of Geelong, all the way to Hobart and knowledge of a recent time, when the waters were not there. And how the people that lived and worked those areas before the British invaders came, with their trinkets, their muskets and all the rest of their poisons. The sea is not just a body of

water. It bears witness history, and the land it is still embracing.

And then there are the boats. Geoff has from childhood roamed the waters from Corio Bay to Hobart and beyond. Most recently he has become involved with the ownership, and the lore of Norwalk Islands Sharpies. It's great read. Recommended. AU\$30 inc pack and post within Aust. Add AU\$15K and post to NZ.

BOAT GEAR







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Contact us if in doubt.

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This pack includes laminating materials for inner and outer stems, dimensioned, building jig pack inc fastenings, oar kits for four oars \$2800

- * Hardware pack Includes brass keel and bumper strips, turned thole pins, oar gearing locators drain plugs Gudgeons and Rudder gudgeons and pintles set \$430
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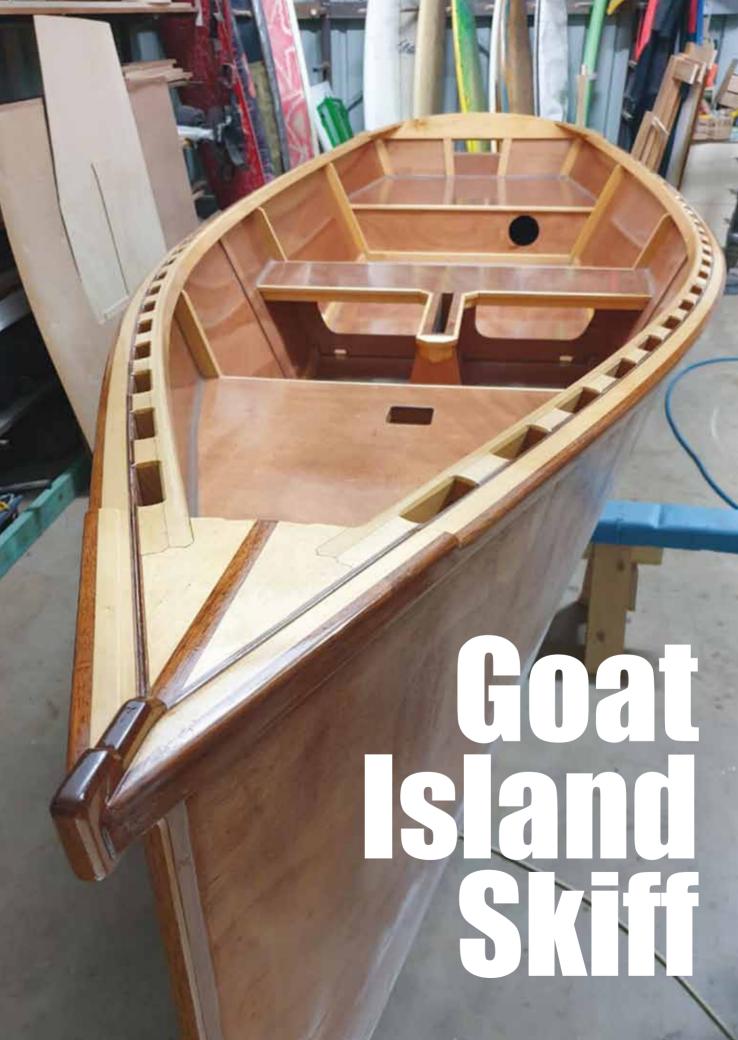
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built by David Yeowart

Victoria Point Queensland

David sent us an email and photos of his boat in the process of building and we were knocked out by the standard of work and the sheer beauty of his creation. We were even more impressed by the fact that this is his first boat build.



ORIGINAL EMAIL FROM DAVID

lans and all materials were supplied by BoatCraft Pacific and lots of advice was offered. Included was plywood, Bote-Cote epoxy, solid timber, Aqua Coat finish coats (clear for the inside finish and white for the hull), all painting equipment and bronze hardware for oars.

I live in Victoria Point, Brisbane not far from Thomson's Beach and the boat ramp. My plan is to build a trolley so I can pull the boat to the beach at first and later will buy a trailer.

I'll be joining The Wooden Boat Club of Queensland and getting myself involved in some of their meetups so I can join others on sailing trips and find myself a likeminded group of people.

For the last 35 years I have wanted to build my own boat, but life always seemed too busy. One morning I was standing in the clear water, mid tide at Thomson's Beach when I realised, I have no reason to put it off any longer.

The boat design is a Goat Island Skiff.

Plans are by Michael Storer.

Length 4.7m (15ft 6ins) 1.5m (4ft 11ins) Beam

Hull Weight Approx 85kg







That day I found a plan for a flat bottom rowing and sailing skiff designed by Michael Storer, perfect for where I live, with good reviews and a local supplier. Within a week I had been to BoatCraft Pacific at Logan two or three times and was ready to start.

I began marking out ply panels mid-December 2019, perfect timing because what I didn't know was that a pandemic would force me into lockdown to work on my boat.

Due to my background in contemporary furniture design and trade I decided to take my time and try to give my boat signature details without changing the original design, enjoying the project and not worrying about when it would be finished.

My boat will be launched before Christmas 2021, which means I have been working on this for two years part time, that isn't too bad. I am already thinking about building my next boat because I love being in my shed and what else would I be doing when the weathers bad.

DAVID EXPECTS TO LAUNCH HIS
GOAT ISLAND SKIFF BEFORE
CHRISTMAS WHICH MEANS IT HAS
TAKEN TWO YEARS PART TIME

The plans supplied by Michael Storer are of a very high standard, you could say they are like a boat building course for beginners. Also, Michael's website is a wealth of knowledge, the Facebook group is very helpful and the people in it are very encouraging. This boat would be a perfect first project for people with limited skills and tools.

I obtained free plans for the perfect oars from one member in the group, which were a joy to build. I feel confident to move on to a more complex design next. I will be using BoatCraft Pacific again for sure, they don't even mind me picking through there timber racks for the perfect pieces of wood.



When we asked him what got him started he said;

"For the last 35 years I have wanted to build my own boat, but life always seemed too busy. One morning I was standing in the clear water, mid-tide at Thomson's Beach when I realised, I have no reason to put it off any longer."

"That day I found a plan for a flat bottom rowing and sailing skiff designed by Michael Storer, perfect for where I live at Victoria Point. Within a week I had been to BoatCraft

Pacific at Loganholme two or three times and was ready to start."

David started his project in mid-December 2019, perfect timing for the start of the pandemic lockdown, giving him the chance to work on his boat.

"The plans and all materials were supplied by BoatCraft Pacific and lots of advice was offered", David said.

David expects to launch his Goat Island Skiff before Christmas which means it has taken two years part time.

David is already thinking about building his next boat because he loves being in his shed. We can't wait to see what he tackles next – sure to be another sculpture in wood!

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Buy on line and your purchase can be delivered to anywhere in Australia.

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by JOHN KLERCK

Having built a number of boats over the years, I have always dreamed of designing my own boat. Then one day I realised that I was running out of time and soon it would only be a dream. So I decided to build a small cabin sailing boat. I wanted to see how small it could be, but still have room in the cabin to stretch out and sleep. Being over 6ft the cabin had to be high enough to sit up and have legroom under the cockpit seat. I have always sailed small boats, but another advantage was that if it didn't work it would not be a big financial loss.

while looking at other designs for ideas I came across a French designer who built his boats the right way up. As I intended to build a full scale model using cheap materials it would give me the opportunity to check the dimensions as the boat progressed.

One of Yann Quenet's small designs drew my attention, but I did not like the idea of a pram bow so I decided to work on a design of my own. Even though I didn't buy plans from him Yann was very generous in supplying me with drawings and advice.

The end result is a reworked model of his Bihanig design. Yann is currently sailing across the Indian Ocean towards the French island of Reunion and should be there in a few days. His boat is only 4m long.

I didn't realise how difficult it would be to build a boat without plans and work out problems when things didn't go to plan. The boat was built with chine runners which allowed more room in the cabin, but it didn't work as well as I expected. The boat required more ballast for the chine runners to be effective so in the end I decided to add a daggerboard. I was able to add the daggerboard without losing too much room in the cabin.

DESPITE ITS SMALL SIZE THE CABIN IS QUITE COSY AT NIGHT AND ALLOWS ME TO STRETCH OUT FOR A **GOOD NIGHT'S SLEEP**

The next problem was the size and type of sail. I had an old Optimist sail which worked quite well when there was enough wind, but I needed a bigger lug sail.

After working out all the problems I am pleased with the end result which is a boat no longer than a Mirror dinghy.

Despite its small size the cabin is quite cosy at night and allows me to stretch out for a good night's sleep.

I live in Adelaide and sail from the Clayton Bay Boat Club which is situated near the mouth of the Murray River which gives me a large area for cruising in a small boat such as the lakes and into the Coorong.





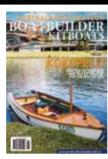




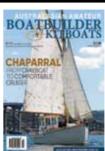
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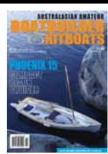












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Boot Craft Dacific

SPRING FEATURE

Looking for a boat-building project? You've come to the right place!



Ian Phillips
MANAGING DIRECTOR

A bit of positive feedback is always appreciated....

Last month we received some photos from one of our customers David Yeowart showing his Goat Island Skiff which is nearing completion. And what a beautiful job he has done - a real work of art.

We have featured it in this insert, but what delighted me most was that David built his boat using everything from us at BoatCraft.

Everything from the original Goat Island Skiff plans and the best marine ply to BoteCote resin and clear Aquacote finish to fixtures and fittings. Plus, he credits our team at BoatCraft here in Brisbane for help and advice along the way.

David expects to finish by Christmas with hull painting to be completed using our Aquacote of course for a tough and attractive finish.

I have always boasted that we have everything needed for a boatbuilding project including help and advice and David's project proves it.

To say that this boat has been beautifully built is an understatement! A Goat Island Skiff from the plan and designed by Michael Storer chosen for its flat bottom and shallow draft and suitable for rowing and sailing.

Thanks David, we look forward to the launch photos.

If you have a boat build in mind, a call to our team is a good place to start, we have everything you need.

Stay safe and get started!



SCAN HERE for QR Code ink to our website





IS THIS THE PROJECT FOR YOU?

If the Goat Island Skiff is the project for you, or you want to tackle something different, then your first step is to phone the team at BoatCraft.

We can answer any questions you may have about this or other projects you may be considering.

IN THIS ISSUE

Lemon Peel **Paint Stripper**

Goat Island Skiff Project

Abbreviated Price List

Plans and Contacts



1300 148 442

ABBREVIATED PRICE LIST

\$97,20

BOTE-COTE EPOXY PRODUCTS

Resin and Hardener 2:1 Mix)	
Hardener choices: Fast, Standard, Tropical	
750ml	\$50.40
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3Lt	\$130.00
6Lt	\$205.00
12Lt	\$391.00
Trial kit	\$16.80
BOTE-COTE EPOXY - NY	
(Resin & Non-Yellowing Hardener 2:1 Mix)	
750ml	\$58.90

3Lt	\$151.60
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500ml	\$30.30
111	649.00

1.5Lt

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Weight	Type	Width	
26gsm	Plain Weave	127cm	\$18.88
85gsm	Plain Weave	96.5cm	\$17,15
120gsm	Plain Weave	100cm	\$10.22
185gsm	Plain Weave	100cm	\$8.34
195gsm	Plain Weave	140cm	\$11.80
287gsm	Plain Weave	100cm	\$12.27
480gsm	Uniaxial	127cm	\$10.82
329gsm	Biaxial	127cm	\$5.69
420gsm	Double Bias	127cm	\$13.66
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Other weig	ghts in stock as	well.	

Woven Tapes from \$1.07 per metre Double Bias Tapes from \$1.47 per metre Carbon Uni and Braids also in stock

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0.5L	\$26.00
1.4L	\$54.70
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16L	\$390.00
A creamy epoxy paste per	fect for feather edge fairing.

ALL PRICES INCLUDE GST

As at January 2021

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annoit, amblams	arount to minimize represent
opacity problems.	
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700g (4L)	\$37.00
2.5kg (10L)	\$77.00
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100g (0.5L)	\$21.00
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850g (4L)	\$75.00
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Unique 1:1 Pre-thickened Epoxy Glue 200a	\$33.84
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4kg	\$184.74
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PREPARATION PRODUCTS

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FERONITE Feronite Rusty Metal Primer 250ml \$21.35 Feronite Rusty Metal Primer 1 Litre \$59.45 Feronite Rusty Metal Primer 5 Litre \$278.70 Feronite Rust Conveter 250ml \$12.45 Feronite Rust Conveter 1 Litre \$36.65

Feronite Rust Conveter 5 Litre

WATER BASED COATINGS

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Trial Kit	\$16.70
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1L	\$52.00
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4L	\$155.00

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12L	\$2044.50

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*Some grades differ	

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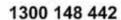


\$145.40





Prices may vary slightly at other retail outlets.



Bote-Cote Boat Craft Dacific

FEATURED PROJECT

A work of Art! A Sculpture in Wood! Not just a Boat...

Goat Island Skiff built by David Yeowart, Victoria Point Queensland.

David sent us the photos of his boat in the process of building and we were knocked out by the standard of work and the sheer beauty of his creation.

We were even more impressed by the fact that this is his first boat build.

When we asked him what got him started he said; "For the last 35 years I have wanted to build my own boat, but life always seemed too busy. One morning I was standing in the clear water, mid-tide at Thomson's Beach when I realised, I have no reason to put it off any longer."

"That day I found a plan for a flat bottom rowing and sailing skiff designed by Michael Storer, perfect for where I live at Victoria Point. Within a week I had been to BoatCraft Pacific at Loganholme two or three times and was ready to start."

David started his project in mid-December 2019, perfect timing for the start of the pandemic lockdown, giving him the chance to work on his boat.

"The plans and all materials were supplied by BoatCraft Pacific and lots of advice was offered", David said.

David expects to launch his Goat Island Skiff before Christmas which means it has taken two years part time.

David is already thinking about building his next boat because he loves being in his shed. We can't wait to see what he tackles next - sure to be another sculpture in wood!







FEATURED PRODUCT

LEMON PEEL – Paint Stripper!

As a practical bloke, I have used paint strippers. Most of them terrify me as they have caused a number of deaths. Sure they generally work OK, but that's not much of a consolation.

That's why I developed our Lemon Peel Stripper and I can say with a clear conscience that it is works and it is safer than most.

And when you are restoring or repairing a boat, getting that old paint off is a major part of the job. Like me you probably tried disc and orbital sanders, with minimal results, beyond being covered from head to toe by paint dust.

A "paint it on – scrape it off" solution using **Lemon Peel Paint Stripper** is a pleasant relief from a noisy and inefficient sander.

Lemon Peel Paint Stripper is manufactured by us here in Australia and we are an Australian business employing Australians.



Lemon Peel Paint Stripper makes removal easy for most coatings including most of the paints used by graffiti vandals.

It also works effectively on acrylics, alkyd and oil based paints, automotive paints, single pack epoxy paints and anti-fouling paints.

Lemon Peel Paint Stripper will also slowly soften two pack epoxy coatings and given time will greatly assist in the removal of these durable finishes.

Lemon Peel Paint Stripper is a versatile addition to any handyman's paint shelf and essential for anyone restoring a boat.

For more information, please call us on 1300148 442 or email info@boatcraft.com.au



SCAN HERE for QR Code link to our website and the Technical Data Sheet





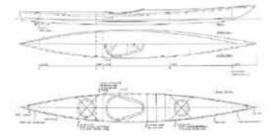


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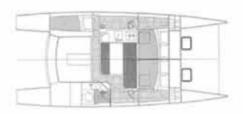
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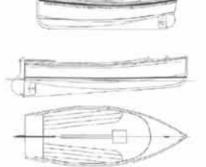
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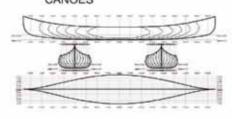
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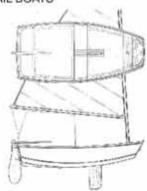
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WORKSH by DON NICHOLSON My take on tools and tips for amateur boat builders.

've built a Jarcat J6, worked on three or four others, major repairs to other wooden (and fibreglass) boats plus I'm the designer (and builder) of too many Duckchasers to count.

POWER TOOLS

Firstly make sure all safety guards are in place and working (more on this later.)

JIGSAWS

Make sure that the base is at right angles to the blade (and that the blade isn't bent. Be aware that some of the cheap jigsaws do not cut straight, the blade clamp twists the blade.

Use a sharp blade always, don't force the saw and remember when cutting curves you must pivot it

around the leading edge of the blade. Cutting 6mm ply or thinner I like to use a metal cutting blade; it is slower but tears the wood less and does damage slower to workbench and fingers (more on this). Since a jigsaw cuts on the upstroke it is best to mark out and cut with the hidden side (if any) upwards.

POWER PLANES

Very useful especially for rapid removal of timber. Conversion to carbide blades (if not already fitted) is a very good idea, sharpening the high speed steel ones is a long slow process. Be careful after a cut to let the blade stop before putting the plane down or transferring it to your other hand! Alternatively put it down with a small block under one end so the spinning blade is above the surface.



JIGSAW BLADE. Cheap saw - notice the blade is not parallel to the side of the saw. Nice looking saw but ...



PULL SAW AND PLANES. A pull saw is more accurate and faster than a tenon saw. Block plane works well pulled rather than pushed. On ply holding the plane at a 45° angle across the edge works best.



POWER PLANE. DON'T grab plane like this before the blade has completely stopped!

Final finishing work bringing down to the line is better done with a hand plane.

More on plane use in another article for fitting chine logs, gunwales etc.

CORDLESS DRILLS

I like at least two, with a spare battery for each.

A drill and driver combination kit will work, just be careful, the driver can easily bury screws in soft material and they are noisy enough to warrant hearing protection.

Do not have to be top of the line for amateur boatbuilders. Eighteen Volt worth the little extra. (Personally I've standardised on the red 18Volt range from the Green Box and am happy with them) The second drill saves you having to keep changing between drill bit and driver all the time. (For many countersunk screws by applying firm pressure while screwing them in will make their own countersink recess.)

CIRCULAR SAW

Unless you have a lot of heavy material to cut an 18 Volt unit will do this for you (share batteries with your drills). Again make sure that the base is actually at right anges to the blade and the blade is parallel to the sides of the base plate otherwise your cuts will wander. A straight piece of timber and a couple

of clamps make a guide fence for long cuts. Find a straight piece of timber and keep it for this.

HAND HELD ROUTER

One of the most useful (and dangerous) tools in the shop. A slip with a router won't just take your finger/s off, it will spray them around the workshop. Modern ones with soft start are a lot easier to control. Always make sure the collet is tightened properly. Hearing and eye protection necessary. For amateur use don't buy the most powerful, they can become hard to hold.

SANDERS

You will probably kill a couple of these. **TIP**: If it's not taking material off, change the paper, don't just press harder!

Fibreglass/epoxy dust (and some timbers) are not good stuff to breathe in or get in your eyes. If you don't have a dust extraction system try to do sanding with your back to the prevailing air flow in the shop so any dust generated is carried away from you. (And wear a mask).



SCRAPER. Remove corners so they can't dig in.

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Buy on line and your purchase can be delivered to anywhere in Australia.

Your #1 source for Bote-Cote epoxy, Aquacote paint & Cop-R-Bote antifoul, Purbond & Epox-E-Glue, Fibreglass, and stuff for wooden boats. Also Plywood, Nidaplast, Hoop Pine, Silicon Bronze Fasteners, Davey Bronze Fittings, Books and Plans.

A belt sander is no good for fairing the hull surface but is fine for daggerboards, rudders etc. For fairing use a torture board, anything else will lead to an uneven surface.

A Velcro padded detail sander will get you into the corners. Note the ceramic (red) papers last a lot longer.

For removing epoxy runs a carbide scraper with the corners ground off the blade works well.

If you're not sure the epoxy is fully cured you're better off with wet and dry used wet. A little heat buildup and the epoxy will clog your paper and the surface will be ruined.

WRITING & MEASURING

I bought a box of HB pencils and left each pencil where I was working. Soon I had one within reach no matter where I was. (Probably with a broken lead). HB is better than a carpenter's pencil, draws a finer line and blacker with less pressure.



SQUARES. Forgot to add in string line, spirit levels and plumb bob.

A couple of squares are needed; one of them a roofing square. An adjustable square is also useful.

At least two tape measures, one the length of the boat and a shorter one. Steel rulers also handy.

When fitting out you'll always find that if you're in the boat the tape measure, ruler and pencil are all on the bench and vice versa so have two and leave one inside. Note: the end of the tape measure is designed to slide back and forth about a millimetre to allow for accurate measurement both internally and externally.

You'll also need a string line, long spirit level and short one too and probably find a plumb bob handy (a nut on a piece of string)

WHEN FITTING OUT YOU'LL ALWAYS FIND THAT IF YOU'RE IN THE BOAT THE TAPE MEASURE, RULER AND PENCIL ARE ALL ON THE BENCH AND VICE VERSA SO HAVE TWO AND LEAVE ONE INSIDE

MOUNTED TOOLS

While none of these are essential they do make life easier and safer and quite a lot quicker.

1. DRILL PRESS

Enables the drilling of holes more accurately in pieces prior to fitting. Also very good when you want the holes vertical or at a particular angle. (Especially useful when working outside the boat on a piece to be fitted inside and you've left the drills there.)

2. SAW BENCH

If, as I did, you buy your timber not precut to size but as baulks, a table saw is a near essential. I have a very elderly Triton MkIII which is still going strong. Here again make sure the blade is at right angles to the table top, the saw is parallel with the table, all adjustments are locked and BLADE GUARDS ARE IN PLACE when possible.

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Buy on line and your purchase can be delivered to anywhere in Australia.

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A FEW TOOLS WHICH MAKE USING THE SAW EASIER, BETTER AND SAFER:



FINGER SPRING. Cut off 1/2" coach bolt fits perfectly in Trojan slot. Set up with spring a short distance before saw blade. Nut only needs to be finger tight.

The curved finger of springy steel is very quickly adjusted to hold the timber against the fence (the bolt is not so tight the finger can't be rotated about it to set the pressure).



WOODEN SPANNER. This is specific to Triton MkIII. The bolts to hold the fence in place are hard to tighten sufficiently. Hence the wooden spanner. (Make your own special tools as needed.)

This used to make sure the bolts on the fence are properly tightened.



SLED. Will do an article on manufacture of this. Note red paint 'safety warning'.

Sled for making sure timber is cut accurately and safely, particularly when only small bits are being removed and are liable drop into the blade housing or spat back out at you. The cut will be more accurate than the sliding guide that came with the saw too. More on the making of this later. NOTE: The saw guard has been removed to use the sled BUT also note the clear plastic cover on the sled to replace it.

3. ROUTER TABLE

My Triton also has the parts to become a router table - this is the way I use the router 99% of the time. The same safety rules apply. It is much easier to feed the timber to the router than the router to the timber unless you're working on large pieces. I'd advise buying some sort of router table if you plan to use it a



ROUTER TABLE. Safer than hand held and some of the sawdust can be collected.



SAW WITH GUARD ON. Note red paint as horrible reminder.

HAND TOOLS

Most keen handy men will already have most of the hand tools required. Note that quite often the best power tool is one without a motor, ie hand powered.

Useful tools you should have already:- hammer, Philips head screwdrivers #1 and #2, chisels 6, 12 and 25mm (don't buy cheapest), bench plane and block plane, a sharpening setup for the edge tools. I've discovered Japanese pullsaws and haven't used a conventional western saw since. Even these cheap ones are great.



CHISELS AND SHARPENING JIG. Sharpen with a 25° main bevel and a short (1-2mm) working bevel of 30°. Leather strop to remove feather edge. Wider stone kept for plane blades as frequent chisel sharpening leaves stone face concave.



I know you're all experienced careful workers like me and take no risks with power tools especially. I started building model boats over 60 years ago, always been very careful around tools that cut. Particularly careful using saw bench and router BUT ...

NEVER, NEVER LEAVE THE GUARD OFF UNLESS ESSENTIAL FOR THAT JOB

Six months ago I'd been cutting rabbets so had the safety guard off the saw. I needed four 16mm square cleats 150 long. Using a push stick and pushed the first three through then stupidly tried to pick up the last one between the blade and the fence. Left hand looked like this.

Moral of this - Never, never leave the guard off unless essential for that job. Never, never, NEVER relax around power tools that can hurt you.

Six months later, got about 50% use with hand and built a sled for those jobs requiring the guard off. Have poured some red paint on the guard to remind me of my carelessness.





COLD WEATHER BONDING

by DON GUTZMER - WEST SYSTEM INC, USA

During the colder months, the Technical Advisers at WEST SYSTEM and ATL Composites are frequently asked "What's the lowest temperature WEST SYSTEM Epoxy can be applied?"

ortunately, it's one they're well equipped to answer. Gougeon Brothers, Inc. got its start in the world of DN Iceboat racing. Both Meade and Jan Gougeon have won multiple DN cup races worldwide. It's not unusual for an iceboat to need repairs mid-regatta, so part of the discipline of iceboat racing is getting epoxy to cure despite cold working environments. The trick is using strategies that bring epoxy temperatures up to adequate cure levels in cold working environments. Since the 1970s. WEST SYSTEM has been using these techniques to assure dependable epoxy bonds throughout frigid Michigan winters. With a little advanced planning, and observing the precautions listed above, you can get WEST SYSTEM Epoxy to cure reliably in cold working conditions.







COLD WEATHER TECHNIQUES

- 1. Use WEST SYSTEM 105 Resin and 205 Fast Hardener. 205 Fast Hardener is formulated to cure well at temperatures as low as 4°C, but this does require an extended cure time before removing clamps or sanding. 206 Slow Hardener and 207 Special Clear Hardener should not be used below 16°C unless you elevate the working temperature to allow the system to cure properly. For best results when clear coating with 207 Hardener, postpone coating until the temperature in your working environment is around 21°C. 209 Extra Slow Hardener should not be used below 21°C.
- 2. Warm resin and hardener before using. Cold temperatures increase the viscosity of the epoxy, making it more difficult to dispense, mix and apply. Warming the
- 44 AUSTRALASIAN AMATEUR BOATBUILDER AND KITBOATS

resin and hardener lowers their viscosity, allowing the product to flow through the dispensing pumps better, cling less to the containers and mixing equipment. and blend more easily for thorough mixing. The warmer, lower-viscosity mixture will flow more smoothly during application and penetrate porous surfaces more efficiently.

METHODS FOR WARMING RESIN AND HARDENER BEFORE USE

- 1. Leave the containers in a warm area.
- 2. Place a heat lamp near the containers.
- 3. Put containers in a cooler with a light bulb or heating pad.
- 4. Build a custom warming box out of rigid sheets of foil-backed insulation and keep it warm with a lightbulb or heating pad.

In any case, you will want the resin and hardener at a temperature between 21°-32°C. These methods keep the warmed resin and hardener close to your work and allow less time to cool off between dispensing and application. Warming the epoxy helps the initial chemical reaction get off to a better start, and results in more crosslinking even if the mixture cools when it is applied to a cold substrate.

3. Dispense resin and hardener at the proper mixing ratio only. Altering the amount of hardener will seriously compromise the epoxy's ultimate strength. WEST SYSTEM 300 Mini Pumps are designed and calibrated to dispense the correct ratio—one full pump stroke of resin for every one full pump stroke of hardener. If you are not able to warm the resin and hardener, do not use excessive force when dispensing. Keep steady pressure on each pump and allow each pump

head to make a full stroke down and a full stroke up. Remember, the resin and hardener become thicker and more difficult to pump when they are cold and require significantly more time to return to the top of the stroke.

4. Stir the resin and hardener thoroughly in a small pot, and allow more time before applying. Mix the resin and hardener for at least two minutes. scraping the sides and bottom of the mixing container. Use a mixing stick shaped to reach the corners of the pot. A smaller diameter mixing pot increases the chemical reaction between resin and hardener because its limited surface area prevents heat from dissipating too quickly.



If you are unable to pre-warm the resin and hardener. allow some induction time. This simply means letting the mixed resin and hardener stand in the pot for several minutes, then stirring it again before using. This helps get the chemical reaction started, and the exothermic heat the epoxy generates will reduce viscosity making the material easier to apply.

5. Warm the substrate as much as possible. The epoxy will thin out as it is applied to a warm substrate. It will flow out much more smoothly and penetrate better, resulting in a stronger bond. You can warm a repair area with heat lamps, hair dryers or hot air guns. Small components or materials such as fibreglass cloth can be warmed in a hot box (as described in section 2). Larger areas can be warmed by tenting the area and adding a portable heat source.

Avoid unvented open-flame heaters that burn kerosene or fuel oil. Unburned hydrocarbons may contaminate bonding surfaces, and elevated moisture and CO_a levels can contribute to the formation of amine blush. Catalytic heaters do not appear to pose a problem unless they are used in a confined space such as an unventilated curing tent or box.

To prevent temperature-related moisture contamination, be sure you're working in ambient temperatures above the dew point. Your local weather resources will provide the dew point temperature based on relative humidity.

- 6. Prepare cured surfaces carefully between applications. When coating at cold temperatures, the slower cure can result in the formation of an amine blush on the surface. The blush feels like a waxy/greasy film on the surface of the cured epoxy. Wash the surface with warm water using a 3-M Scotchbrite[™] pad before applying subsequent coatings to a cured surface. Don't let the water evaporate. Dry the surface with plain white paper towels. Sand any remaining glossy areas with medium grit sandpaper.
- 7. Allow additional cure time before removing clamps or stressing joints. As a general rule, double the cure time for every 10°C drop in temperature. Allow additional cure more than the 10°C rule for pre-stressed joints, such as bent laminations and joints that will be subject to high loads.
- 8. Elevate the temperature of partially cured epoxy. Elevating the temperature of the epoxy after initial cure can help to complete the epoxy mixture's cross-linking and boost the epoxy's physical properties even after a week at cold temperatures. Elevate the temperature of the epoxy and substrate gradually to avoid thermal shock. Although any temperature elevation will improve cross-linking, try to boost the temperature to 22°C or warmer. The time required for final cure depends on the hardener used and the temperature the epoxy is exposed to. Generally, higher temperatures require shorter cure times. Do not exceed 60°C and do not remove clamps or load the joint until the epoxy has cooled.

CAUTION!

Heating a porous material may cause air within the material to expand and 'outgas'. Allow the epoxy to reach a partial cure before elevating the temperature. If an epoxy coating applied over the material has not gelled, bubbles from the out-gassing material may show up in the cured coating or glued joint as it warms. In some cases, your shop will naturally warm itself enough to complete the cure during the day, following a cold night. Outdoors, building a plastic tent to trap heat can easily boost the temperature enough for the epoxy to cure. Turning up the thermostat, using radiant heaters, electric heaters or electric blankets are the most common way to control the cure temperature in a shop. It is not necessary to heat the entire structure if you are working on only a small area. Tents of plastic or insulated board are very helpful for confining heat to specific areas and provide greater mobility with a limited heat source, both indoors and outdoors.

COLD WEATHER STORAGE

It is best to store WEST SYSTEM materials above 2°C with the container caps screwed down tightly to avoid moisture contamination. The containers can be stored with the 300 Mini Pumps left on them. After a long storage, verify the metering accuracy of the pumps.





More at www.westsystem.com.au and www.atlcomposites.com.au

BOA OWEN change IS coming



by ROBERT AYLIFFE

My life has changed. I have a 'new' boat - NIS 29 Kuril Kuril? It's an Aboriginal name for a native water rat found in Queensland. Or, depending on who we talk to, a place where the water rats gather. And they certainly are, around Kuril!

he is moored at the Port Adelaide Sailing club. Members are always stopping by asking about her, and especially her lack of standing rigging, and, unusual in this context anyway, good looks.

They are also surprised when they see, belying her relatively narrow beam, the comfortable room down below, the highly detailed interior finish, the galley area, the head design, the quality of the soft furnishing. And that's before we get to her electronics and navigation equipment.

I kind of lost interest in the 29er when the unstayed version of the 31 seemed to render her obsolete.

Having revisited her, and now sailed her, I still can't believe the circumstances that have lead me to her ownership.

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Kuril was built by meticulous boat builder and valued former employee, David Bennetts and owner lan Ramsay. She was launched in 2008.

Between them they have, with only a tiny bit of input from me, built what may be be the best set up Norwalk Islands Sharpies 29er in Australia.

Or, anywhere.

I didn't intend to own her, though I often dreamed about such a boat, when I was at the club on other

matters. I was sitting on her, in a phone call with owner Ian. We spoke about the fact that his life had changed and it was time to move on.

To my astonishment he said that he'd like me to own Kuril.

No way! I could not afford her. As the conversation wore on, It became clear that I just might be able to. lan helped a lot. An hour later I was wondering how I'd put this rather large decision to Ali.

> She surprised me. It was a day of surprises, and opening and closing doors.

Everything is bigger, but really she handles just like my beloved NIS 23. Charlie Fisher. But without the initial tenderness.

Stands up well in puffs, and rolls to about 10, 15° and sort of locks there, cutting through chop quietly and very fast.

'Keel boat feel', without the restrictions and hazards that come with deep fixed keels.

Like her sisters larger and smaller, she sails and self steers on a fairy's breath. with the wind anywhere forward of the beam. She broad reaches like a freight train, and runs even harder. She is utterly reliable in stays, and is just so easy to be with. Not only that, but I have full headroom.

My very missed friend the late Bruce Kirby's magic at work.





ABOVE LEFT: Franklin Tasmania's Living Boat Trust Secretary Richard Forster sailing Kuril. I'm making coffee. Using an espresso unit on a 'suicide stove', a trick learned from builder, Darren.

LEFT: ... the beautifully made, very reliable, barely used and rather dominant fossil fuel 15hp Yamaha outboard, in its very elegantly constructed well. It's too much a symbol of much that is wrong with our world.



I've sailed her overnight accross the Gulf to Port Vincent, and back to Port Adelaide. Weather got up a bit on the way across, but no issues. Quiet and comfortable, except for some weather noise outside.

Now that I've owned her for as few weeks, some new ambitions.

First a rethink of the very tight head. For me the 'as designed' head is just too tight, or as my whippet friends suggest, Robert, you are just too BIG! Bruce would not have been an easy fit either.

Once upon a time I could not have cared, and made use of a bucket and chuck it approach. With older and sometimes more genteel friends I do need to at least rethink this.

I'd like Ali to not feel any more confronted than she need, travelling with me.

Second, I can't abide the beautifully made, very reliable, barely used and rather dominant fossil fuel 15hp outboard, in its very well constructed well. It's too much a symbol of much that is wrong with our world. It dominates the cockpit, and puts 60kg including fuel at the back of the boat and is a potent fire hazard.

Or as 'Trimaran' Jim Brown, put it 40 years ago, 'polluting for pleasure' is no longer a conscious option..

It's not about saving money on fuel. It's not even the guiet or undoubted convenience of other options. It's more about the vanity of believing that I would like my pleasure to, as far as possible, be contributing to a of a 'better world' conversation.

I want to be part of the solution. As Malcolm X famously put it, if we are not part of the solution, we ARE part of the problem.

So I'm looking at retractable electric pod drive, such as the German Torqueedo and the Chinese EPropulsion Motors.

Serendipitously, pretty much as soon as I opened my computer to begin this story, an old email bounced up on my screen from Edward Elcock, Wooden Boat Association of

Queensland Inc. who not only kindly remembered that I'd had a flirtation with the idea of a compressed air 'battery' for our boats. That flirtation also included the TATA Engineering Company in India who were trialling prototype small cars on the roads in India 30 years ago.

Tata are credible, and have been early seekers of alternative power/battery solutions. . When you see a sleek Jaguar car, or the industry leading Land Rover in any of its iterations cruising our roads, you are really looking at TATA products.

here is the article, and thanks Edward.

IT BE THE

TATA Motors of India thinks so.





It is an auto engine that runs on air. That's right; air not gas or diesel or electric but just the air around us. Take a look.

The Air Car, developed by ex-Formula One engineer Guy N. For Luxembourg-based MDI, uses compressed air to push its engine's pistons and make the car go.

The Air Car. called the 'Mini CAT' could cost around 365,757 rupees in India or \$US8,177.

The Mini CAT which is a simple, light urban car, with a tubular chassis, a body of fibreglass that is glued not welded and powered by compressed air. A Microprocessor is used to control all electrical functions of the car. One tiny radio transmitter sends instructions to the lights, turn signals and every other electrical device on the car. Which are not many.

The temperature of the clean air expelled by the exhaust pipe is between 0-15° below zero, which makes it suitable for use by the internal air conditioning system with no need for gases or loss of power.

There are no keys, just an access card which can be read by the car from your pocket. According to the designers, it costs less than 50 rupees per 100km, that's about a tenth the cost of a car running on gas. It's mileage is about double that of the most advanced electric car, a factor which makes it a perfect choice for city motorists. The car has a top speed of 105km per hour or 60mph and would have a range of around 300km or 185 miles between refuels. Refilling the car will take place at adapted gas stations with special air compressors. A fill up will only take two to three





Tata Motors – thinking outside the square.

BUILDING A BOAT MAKING OARS REFITTING VARNISHING DESIGNING MAKING A KAYAK UPDATING ELECTRONICS SAILING RACING CRUISING SELECTING TIMBER SANDING FAIRING PAINTING TRAILERING BUYING SELLING SEWING SAILS REPAIRING REVIVING MARINISING AN ENGINE BUILDING A KIT LAUNCHING BUILDING A RUDDER USING EPOXY MAKING A MAST

or simply dreaming about messing about in boats ...













If so, we'd like to hear from you!

Australian Amateur Boatbuilder & KitBoats magazine is interested in hearing the story of your project, how you got started and what was your motivation. Don't worry if you can't write a masterpiece and naturally, you'll have to include some clear photos, showing the various stages of construction from the beginning to where it all ended!

PO Box 560 Varsity Lakes Q 4227 | 0412 856 904 or 07 5593 8187 | wendy@multihull.com.au

minutes and costs approximately 100 rupees and the car will be ready to go another 300km.

This car can also be filled at home with its on board compressor. It will take three to four hours to refill the tank, but it can be done while you sleep.

Because there is no combustion engine, changing the one litre of vegetable oil is only necessary every 50,000km or 30,000 miles. Due to its simplicity, there is very little maintenance to be done on this car.

Before we we laugh out loud, please consider that big coal mining locos in the US, and the big shunting yard locos in Europe at the turn of the 20th Century all ran on compressed air. No coal in their coal bunkers. AIR!

As did the trams did, in Paris, for nearly 35 years. All of them with relatively leaky, riveted air tanks.

In the immediate, the practical let's do something now, solution does seem to be Lithium Ion battery electric and its where rapid development and economies of scale are making this tech more and more attractive.

By another stroke of luck, I now have a personal contact with E Propulsion.

There is a lot of stuff on this company on YouTube.

The Americans have been using these motors in outboard motor form, for some years with VERY good response. While not entirely scientific, their comparative surveys with similar specced Torqueedo and other brands do suggest high customer satisfaction, and often superior performance. But there is not much on the pods. They look most interesting, similar to the Torqueedo in concept, but with the added interest of Ocean Charging. Ocean Charging makes use of the boat's speed through the water to spin the pod motor in reverse, turning it into a battery charging generator. It has been done before, and I still have more to find out from my friends at EPropulsion on the 'how, and how well' it works.

We don't have a Royal Show in South Australia any more, or not for the forseable future. Ali and I for nine years up till 2019 did a kid's boat building program where where young people (and their parents) built and launched around 9000 little boats that floated off over the distant shores of their dreams.

Along the way we introduced an 'organic battery motor outboard' which comprised a rubber band, a tiny plywood frame and a paddle blade.

One eight year old girl was told by her father that it was rip off, because 'what was organic about it, and how come it was called a 'battery'.

As it happened they were sharing a table with Jay Weatherill, the then SA Premier and his young family. The girl said, 'of course it's organic. It's rubber, and this stuff still comes from trees.

And, "Look! I'm charging it," she said, winding the rubber band up!

She then told every one listening, including the Premier and his family, that her dad 'hated alternative energy'.

Someone asked why?

'Well my dad thinks it doesn't work at night. But I can fix that!

The Premier was listening intently. Someone asked, "How?"

'Well I'd make a really big one of these rubber band organic batteries and I'd stretch it from the GPO in Adelaide to the top of Mount Lofty and we'd use the solar energy during the day to wind it up. Then at night we could use the giant rubber band to power the state. A giant battery!"

Long silence. The girl looked at the Premier. He grinned at her, and said, "Now, you hold that thought, kiddo.

One day, you WILL be minister for energy!"

And the whole area cracked up, including her dad.

A couple of years later Elon Musk was in town, and SA was on its way to the much maligned by the coal co shareholders, but now famous, Big Battery, and saving the summers of at least three states!

Who knows ...

We live in interesting times.

So, here we are now, back to where we started.

E Propulsion don't have any of their 3KW or 6KW pod motors here in Australia. They have sent me some pricing indicators which I'm reviewing right now, and it is looking very good.

While components may be bought separately. The idea of an optimised pack consisting of Pod unit, LI batteries to suit, controllers, charging equipment and information systems has strong appeal.

A one brand Plug, and Play system is most likely to work well from the start, and should make servicing

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6KW E Propulsion Pod. Electrical cable goes through the tube at the top. Batteries (much lighter and less volume than lead acid) may be anywhere in the boat. This motor is suggested for up to approximately 4 tonnes boat weight, and because nothing exceeds like excess, I may choose to use it on my NIS 29, which is not to say it could not be used on smaller boats such as the NIS 26, since the motor's volume and weight are low. This one is designed for maximum result so the 48 volt LI battery system.



3KW E Propulsion Pod. Electrical cable goes through the tube at the top. Batteries (much lighter and less volume than lead acid) may be anywhere in the boat. This motor is suggested for up to approximately 2 tonnes boat weight. This one would be great on the NIS 26, which is not to say it could not be used on smaller boats such as the NIS 18, since its volume and weight are low.



1KW E Propulsion Pod. (3hp Equivalent) Electrical cable goes through the tube at the top. Batteries (much lighter and less volume than lead acid) may be anywhere in the boat. This motor is suggested for up to approximately 1 tonne boat weight. This one would be great on the NIS 18. More data on request.

and warranty issues should they arise much simpler to deal with.

We are hoping to learn more about the Ocean Charging and how it works, among other things in plan for the next issue. The wish is for a really attractive entrance cost for the first 5 or so complete packs, to get the ball rolling, and creating a knowledge base for us all to draw from.

Some are already considering a through hull retractable mounting concept for the pods, to easily clear weed under way, and to keep the pod out of the water when not in use. And so we can check on it without diving over the side.

We are inviting expressions of interest in this exciting proposal. I'm probably going for the 6KW with a 48 volt battery pack for my NIS 29. Paul Atkins is looking

hard and so are several others. There's one to suit the NIS18 variants as well, and the bigger ones including the 43.

Please note! It is not my intention to become a dealer, but once we have the 5 running to encourage others to consider it.

There is so much to learn. I'm dreaming of a big clear cockpit, with the only noise under power, or charging under way being a gentle, peaceful whirring.

BTW I have an as new 15hp electric start 4-stroke Yamaha short shaft outboard motor with less than 100 hours running time. Aasking \$2500. Insured Delivery Contact robert@straydogboatworks.com

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by JONATHAN WALLIS images JONATHAN WALLIS

One of our all-time favourite restaurants is 'Franks', down the Huon River south of Hobart at Franklin, a convenient and congenial location where we recently caught up with our old friend and committee member Julie Hinks, from the Wooden Boat Centre, just a short walk across the road to the busy and unique WBC workshop, right on the very banks of the Huon River.

nd here we found a team of half a dozen highly qualified shipwrights, and this year's 12 students, including John Avery, Mitchel Bray, Paul Cullen, Gennaro D'Allessandro, Neil Easson, Hannah Fitzpatrick, Mathew Gogarty, Fabian Halton, Sarah Mantel, Jean-Pierre Scheerlinck, Ross Whyte, and Taylor Wilkin, from all around the country in fact, hard at work building and restoring, fine wooden vessels in a lively hum of amicable activity.

There may be a number of boat building schools scattered around Australia, but this is notably the only one that focuses exclusively on building and restoring wooden vessels, and it couldn't possibly be better situated than in Franklin with its lively established maritime atmosphere from the Huon cruises, Dave Nash's beautiful *Yukon* gracing the wharf, the historic *Cartela* sitting at her wharf hopefully awaiting total restoration, to the Living Boat Trust, and the St Ayles community.

And while we were here at Franklin the other day, among all the hustle and bustle of this busy workshop, Julie Hinks introduced us to one very notable student and well-known Maritime identity, Paul Cullen from Hobart, who happily found time for an in-depth chat with us.

Paul, who tells us he was originally an immigrant from Ireland, via USA and UK and other places, has indeed had a wide and varied career path, including having been a professional chef among other things.

But more recently he was Station Leader at Casey in Antarctica, then returning to Tasmania he made his mark successfully running the 'Taste of the Huon' at Ranelagh, going on to running the 'Taste of Tasmania'.

Next, we find him being appointed General Manager of the world renowned 'Australian Wooden Boat Festival' and a director of the 'Antarctic Festival' in Hobart.

Paul is now widely admired and renowned from the United States to Australia and New Zealand and beyond for his competent management of four highly successful Wooden Boat Festivals. During that period, he has watched Hobart's bi-annual festival grow into

a now highly respected and successful major event in the International 'Wooden Boat World Calendar', taking the four-day event from strength to strength since he came aboard in 2011.

Most notably though, at the time when Paul first put his hand up for the Wooden Boat Festival's top job, he candidly admitted that he knew nothing at all about wooden boats! And although that did make some folk sit up and take notice at the time, he rapidly turned this lack of knowledge to his advantage, and because it introduced him to an entirely new world, it gave him the excuse to question literally everything, and he indeed filled in the gaps rapidly, as he worked towards expanding and improving the Wooden Boat Festival.

More recently he retired from all his commitments to explore his previously latent passion for wood working, furniture making and the construction of beautiful wooden vessels at the Wooden Boat Centre at Franklin.

Paul told us that he had been delighted with the course so far and that it had surpassed his wildest expectations. We asked him about his motivation and enthusiasm for all things wooden. for the Centre, and also why he had chosen to embark on this course, and his infectious enthusiasm showed through as he replied:

"Well to be honest I had become well acquainted with Paul D'Olier during my days at the Wooden Boat Festival, and as I had this unfulfilled passion for restoring wooden furniture and wood working in general, and

having suddenly found I had the time, I decided to commit myself to doing something about it! And my first thought was to approach Paul D'Olier, as I had already been led to admire his professionalism and enthusiasm in getting the Wooden Boat Centre up and running from a quiet little business to today's busy and well-run business at Franklin that we have today.

And what a diverse crew of fellow students, and sponsors, I found here, they include a Master Mariner, a Qantas Pilot, even a Surgeon, and with a total of no less than four PhDs among them, leading to some fascinating conversations during breaks.

He has assembled an incredible team of experienced and competent Mentors, Shipwrights and Instructors, men who know how to share and impart their





TOP: Entering workshop - a hive of activity.

ABOVE: Jean-Pierre Scheerlinck working on the carvel planking of the Haven 12.5.







TOP: The Franklin 29 plus Mitchel Bray working on her.

ABOVE LEFT: Workshop Huon pine dinghy in foreground and workin on Franklin 29.

ABOVE RIGHT: Left Paul Cullen and right Mike Johnson instructing.

knowledge certainly, but more importantly in such a congenial and inclusive manner, ensuring also that the place itself is one very happy venue. So, what better place could I have hoped to spend a year, and in such great company.

Paul D'Olier has shown great leadership and competence to do this, especially in face of the dramatic set backs he has somehow overcome from the 2019 bushfires that literally came to the doorstep in Franklin, organising the almost seamless evacuation of the crew from Port Townsend and the boats they were building to safer premises, so that

they were, in fact able to showcase their work and a completed Haven 121/2.

Then there came the Covid 19 Pandemic with many interstate students falling out of the first course owing to travel restrictions, but which they yet managed to run successfully regardless, supplemented by a variety of popular short courses on site.

Recently there has been a very exciting Government grant of \$1.25 Million to allow for expansion of the workshop and tourist areas, and improvements. And with Paul D'Olier in charge, this is now a new exciting phase they are embarking on, and it is great to be there in the thick of things watching the Centre going from strenath to strenath. and with an even more exciting future promised. Frankly I couldn't be happier with my decision, the course, and the amount

of personal satisfaction I have derived from it."

We asked Paul where he saw his future, and he said that whilst he has no desire to set himself up as a boat builder, he could see opportunities where he would enjoy helping someone else to build, or restore their vessel, and he was also looking at further possible involvement in the tourism side of things, as well as maybe filling in as a guide, and assisting to further promote the Centre and its courses.

We were impressed to find the whole workshop a virtual hive of industry, with students working on many diverse and interesting projects. Graham Rankin and Julie Hinks kindly showed us the extent of activities with this year's students working and gaining experience in a wide variety of areas including the completion of the stunning signature navy blue Franklin 29, (the hull beautifully painted and faired by Jonathan Minnebo Designs from Kettering), the construction of a second carvel hulled Haven 12½., several small dinghy builds, the restoration of a Tamar



Head Shipwright Cody Horgan with Julie Hinks.

River Cod Boat for a customer. skin on frame construction. stitch and glue construction, as well as working on individual projects towards their qualification. Some of those projects include some beautiful ship's wheels. tool chests, and one student is building an Oughtred dinghy.

whilst others are

building canoes. Graham observed: "It's truly amazing to see how the students inspire each other with their creativity, and it makes for a very interesting and happy workshop.

And we have a great team here with established skills, starting with Mike Johnson who is our workshop manager and 'go to' man for small dinghy builds.

Cody Horgan is our head shipwright, a former student of the Centre and formerly head shipwright at the Aust National Maritime Museum. He has had a wealth of experience working on the ANMM's heritage vessels especially the New Endeavour.

Gordan McGill is also a shipwright, having trained at the Northwest School of Wooden Boatbuilding in Washington State, USA and it is Gordan who is also our marine electronics whiz.

Jimmy Cole is a new shipwright this year, Jimmy was a student in our first course intake last year and is now assisting the second-year students as well as working on the completion of the Franklin 29.

Shortly to join us, as well, is Sarah Mantell. Sarah started with us this year as a trainee shipwright, and her competency and attention to detail has led to her being offered a full-time position where she will be assisting Tim Blumfield, the Instructor, with the Fine Woodworking course where students will build a traditional tool box. Sarah has already organised and led a two-week skin on frame course for a group of students who built two 14ft Whitehall dinghies."

Originally established in 1992, the Wooden Boat Centre has literally gone from strength to strength. gradually building up its reputation as one of the most valuable maritime education centres in the Southern Hemisphere, with an amazing collection of skills and seafaring lore and wisdom, and of great benefit to the Franklin area. With their welcome recent grant, we anticipate even better things in future and we wish them every continuing success.

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or simply dreaming about messing about in boats ...







If so, we'd like to hear from you!

Australian Amateur Boatbuilder & KitBoats magazine is interested in hearing the story of your project, how you got started and what was your motivation. Don't worry if you can't write a masterpiece and naturally, you'll have to include some clear photos, showing the various stages of construction from the beginning to where it all ended!



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by **DEREK ELLARD**

This column is mainly about how new technology is changing the face of all things maritime, boats, ships, passengers and trade. Not before time as our oceans, your oceans, are dying and the evidence is indisputable. Yet there are millions of us working hard to turn it around, labouring away in every office, every boatyard, every home, doing our best to leave the planet in a better shape. Take a look at the International Windship Association's long list of members and be reassured that its not for the want of trying and our numbers are growing fast.

Here are some of the projects we've been working on recently.

SCHOONER NEWS

have always harboured unhealthy passions when it comes to schooners. I mean the very name conjures up exotic images of the 19th Century Fruit schooners, laden with sweet oranges from the Azores - 12 days to the London docks. Or the Fabled Grand Banks fishing schooners like the Bluenose - the fastest of the all. Take a look at the utterly fabulous 'Butterman' schooner Peri and her extraordinary rig in John Leather's timeless work, Gaff Rig. And I haven't even got to Westward or Rainbow or Altair - Legends, every one of them.

One day, before I pass my recommended use by date, I'm going to get my hands on the wheel of something right over the top so I went and designed one. And what's more I have been encouraged to develop the new ship by a well-connected International Shipping Agent. This is the C180, an evolution of the smaller C160, now with a cargo capacity of 24 TEUs - that's 12 40ft containers. Heavy duty then. She is a couple of metres longer than the lovely French Barque Belem of 1896.

C180 AND BELEM

CLIPPER C180

A brief comparison between the French square rigger Belem and the new C180 schooner from Go Sail Cargo.

While the two vessels are remarkably similar in many ways, length, beam, sail area, they are entirely different as 125 years of sail evolution separate the ships.

The Good Ship Belem was built for the transatlantic route and was one of a fleet of beautiful sailing cargo ships from the Dubigeon yard in Nantes. Famed for their big Cape Horners, the Belem was much smaller but much admired, and indeed, she still is.

At first glance, the obvious difference is in the rigs, the French boat's barque rig was ideal for the Atlantic tradewinds, the schooner's better suited to her intended mixed cargo and feeder duties. The unseen story however, is not only the dramatic improvements to sails and rigging with new technology, but the equally remarkable reduction in weight aloft. It is calculated that the modern schooner's rig weighs less than 25% of the original barque's – you can set more canvas and sail faster.

In line with any modern cargo ship, the C180 hull is very different under the water and is easily driven without sacrificing stability. The twin electric auxiliaries, charged by solar and prop regeneration. are smaller than the Belem's diesels as much less power is needed. The addition of twin daggerboards allow the schooner to point up to windward in a way the skipper of a 19th Century ship could only dream of. Port and starboard water ballast tanks help to offset heeling and stabilisers reduce the efficiency sapping roll in a seaway.

Crew levels are lower, maintenance is much less than it used to be and navigation these days has taken away nearly all the uncertainties. So unsurprisingly, the 21st Century sailing cargo ship is on a higher plane all round but perhaps the most important advance is the cargo capacity, the Belem, 400 tonnes, the three masted schooner carries 600 and it's all containers - 24 of them.

While there will never be anything guite like the sight of a square rigger under full sail, the new schooner is designed to be more than a sea-going box with enough appeal to satisfy the discerning seafarer. A thoroughly modern freighter to satisfy the owners too. Efficient, reliable zero-emission sea-transport doesn't really have to be ugly does it?

That's technology and the evolution of the sailing cargo ship. Room for 12 paying passengers in very comfortable cabins too, and while they may well be

BELEM

The French square rigger Belem and the C180 schooner: the statistics at a glance:

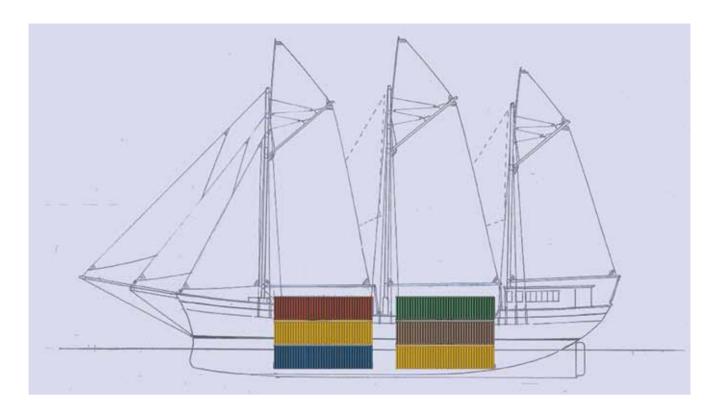
LOA 55m / 180ft LOA 52m / 170ft 8.6m / 28ft 8.8m / 29ft Beam Beam Hull Steel Hull Steel Draft 3.5m Draft

4.0m twin diesels **Engines** Twin Electric **Engines** Rig Schooner Rig Barque Sail area 1,090sqm (max downwind 1.280) Sail area 1.200sqm

8/12 Crew Crew

12 up to 48 trainees **Passengers** Passenger 405 tonnes Cargo capacity 600 tonnes Cargo capacity

Theoretical top speed 17kts Theoretical top speed 16kts



'asked' to help man the ship they can always return to their well-appointed accommodation after their aerobic exertions on the windlass.

And now a few words on sails and how the world's sailmakers have answered the call for ever greater performance. I wrote this for the Clipper 100 but it's mostly applicable to the Schooner - just add an extra mast and a few hundred square metres of canvas.

SAILS - THE ENGINE ALOFT

Just as the auxiliary diesel was once referred to as the iron topsail, the sails became the engines aloft. Just like any engine, they need to be designed and engineered with care to ensure optimum performance for the demands made of them are extreme. From balmy cruising in the tropics to clawing off a treacherous lee shore under storm canvas, these engines cannot miss a beat.

At Go Sail Cargo our route to reliable horsepower is evolution and our chosen rig is the gaff schooner or ketch. These sailplans have evolved over the centuries in the hands of fishermen, fighters and traders, all with a big stake in their performance and versatility. While the clippers running down the



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ocean's freeways, the tradewinds, set clouds of squaresails, they are not suited to our smaller boats as their job is to deliver the goods to the smaller ports and remote communities with a skipper and a few hands to trim the sheets.

In keeping with our commitment to practical low risk evolution, it is true that the profile of our traders would not look out of place moored alongside a 19th century quayside, however closer inspection will reveal dramatic improvements. Weight – it decimates performance, so we trim it away. Heel is reduced and more sail can be set – a bigger engine. As an example, the mainmast, sails and rigging of a 19th Century Thames Sailing Barge weighs 4-5 tonnes, for an equivalent new C100 we're aiming to trim that to 25%. That translates into a faster ship, a safer ship and with an optimised hull, the evolution process starts to pay real dividends. But it doesn't end there, longevity and reliability are way better so it's good riddance to rotting hemp and disintegrating canvas. There's new alloys, carbon fibre, new generation synthetic ropes, low friction fairleads, powerful winches and I haven't got to the sails yet!

Our sailmaker of 25 years, Ben Kelly, is not only an expert in modern interpretations of traditional rigs, but now he's with North Sails he has access to the very best of modern technology. If anyone can power up a Gaff rigged cargo ketch it's Ben.

Using our new clipper 100 as an example, he's suggested three types of sails starting with the mainsail, the key driver, and the mizzen. These sails utilise advances pioneered in racing but adapted to working craft. They're laminated not sewn and built up over adjustable moulds to the desired profile. The 21st Century sailmaker is rolling resin and slow cooking to create sails our forebears could only dream about - superlight, tough, perfectly foiled and with flexible solar panels glued on, complete with bonus power. In the event of damage new patches are applied with fast curing resins.

The second type in the wardrobe comprises the staysail, or inner jib and the jib itself, contemporary evolutions of working canvas, made from heavy duty synthetic cloth to withstand the rigours of trading under sail. The staysail is roller furled and shackled to the end of the inner steel bowsprit to simplify the sailplan and allow more room for the squaresail. The jib itself is similar and both foresails are strong, resilient, hold their shape well and shed water quickly. These two sails complete the 'working wardrobe.'

Third in our list are all the lighter, fair weather sails, genoas and topsails. Again, drawing on a vast reservoir of competition experience, these are full cut to power the ship in lighter conditions. Given that our traders will operate in the gentler latitudes, it would be a crime not to include an outrageous Yankee from bowsprit end to masthead. 150sgm? That'll

do, we'll take that 12m pole as well. Generous yard topsails will be bent on to lightweight alloy or, budget permitting, carbon fibre spars and sent aloft as soon as possible and taken in only reluctantly.

Now we come to a couple of sails that depart from our 19th Century template, the first, the mizzen staysail, is hanked on to the mizzen derrick and set out to windward in clear air. If you're considering an ocean race (with or without cargo) then consider our 'hammock' a square topped spinnaker with an offset vard set like a clipper's stunsail, sort of. Last but not least there's the squaresail, a downhill flyer to exploit the 'lift' factor and provide inspiration for the owner's boardroom painting. This sail is bent on to its yard and pre-furled prior to hoisting. The spar attachment points are offset and a wire 'track' shares the load and holds it steady when hoisting. Once up, the squaresail is unfurled and braced from the safety of the deck. This sail is a special case as it has to be light enough for two hands to set but strong enough for prolonged tradewind use. The squaresail, with a reefed main, staysail and perhaps a smaller mizzen staysail, could eat up the stress free sea miles.

Now you're probably wondering why all those sails? Versatility, balance and manual operation when all else fails - a sailplan for every occasion, force 2 up to force 7. Beyond that it's time for that tiny orange storm jib, faith in a good ship and a steady hand on the wheel.

These canvas engines then, produce more useable power to drive the Clipper 100 along at a fair clip, come what may, the cargo is safely delivered, there are no fuel bills and the ship's owners are content. A job well done.

That's it for now, still a fair bit of work on the 850 tonne cargo ship and this one, the least developed of all the Go Sail Cargo electric clippers, stands a good chance of getting built. Oh the irony! Contact me for more details, prices, options, colour schemes.

derek@scruffie.com

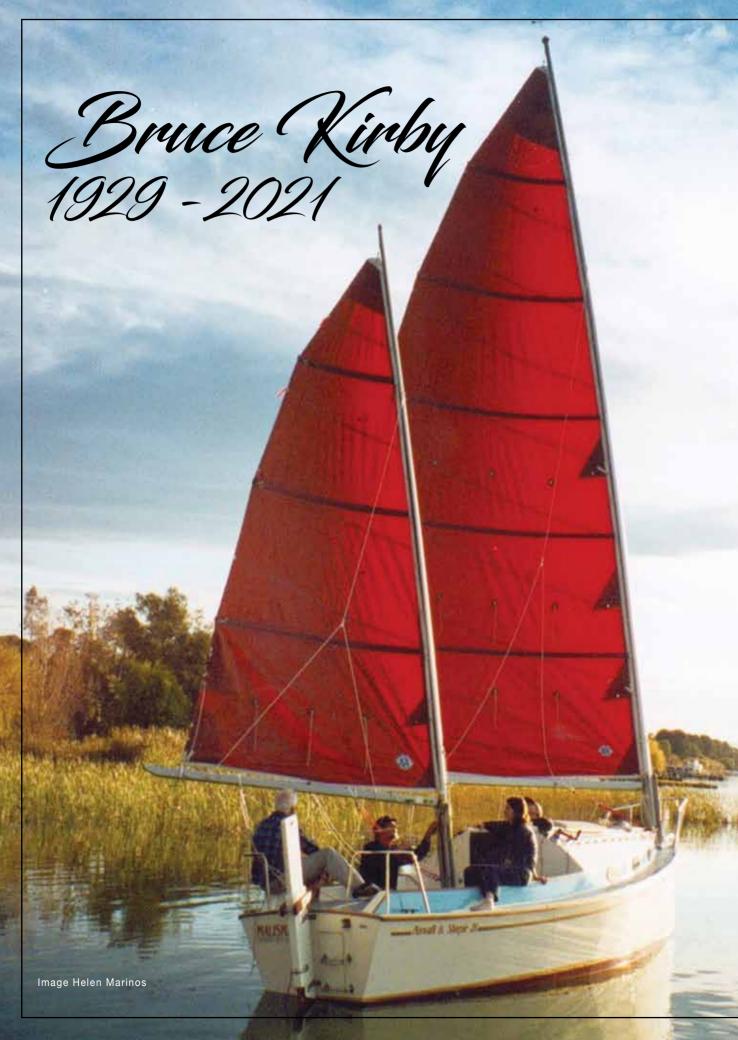
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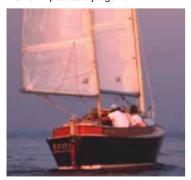
As the sailor in later years.

100

The catalyst for our friendship. Sailing Norwalk Islands Sharpies. *Image Margo Kirby.*



The last time we saw Bruce, July, 2018. He has just driven us from his home to the Darien Railway Station, en route to LA. I am wearing his shirt, gifted to me because Margo correctly thought I needed to lift my game for the Noroton Yacht Club. I treasure it. He liked Ali much more than he liked me, I'm sure. A man of impeccable judgement!



Exit 12. NIS 26 – into the sunset, with Bruce and Margo aboard, as they have been, for 65 years. Image Robert Ayliffe

friend and genius boat designer



by **ROBERT AYLIFFE**

It was Paul Atkins, NIS 26 Mk2 builder, who called me to let me know our friend, Bruce Kirby had died.

The many tributes I have read since are, not surprisingly about Bruce's boat designs and world wide racing record. His legacy is nearly 70 major boat designs of which thousands have been made, and are still being campaigned accross the world.

And that's before we get to the hundreds of thousands of Lasers, the genius small boat that has introduced more people to sailing than any other.

He was a loved sailing teacher, and a respected advocate on social issues, guiding some significant changes within the New York Yacht Club.

I stayed with the Kirbys for nearly a week in July 1998. First I got to help Bruce carry Laser #1 to the courier, en route to the permanent collection at Mystic Seaport, two hours up the road from the Kirby home.

The second (and the purpose of my visit) was sailing on Norwalk Islands Sharpie #1, Exit 12.

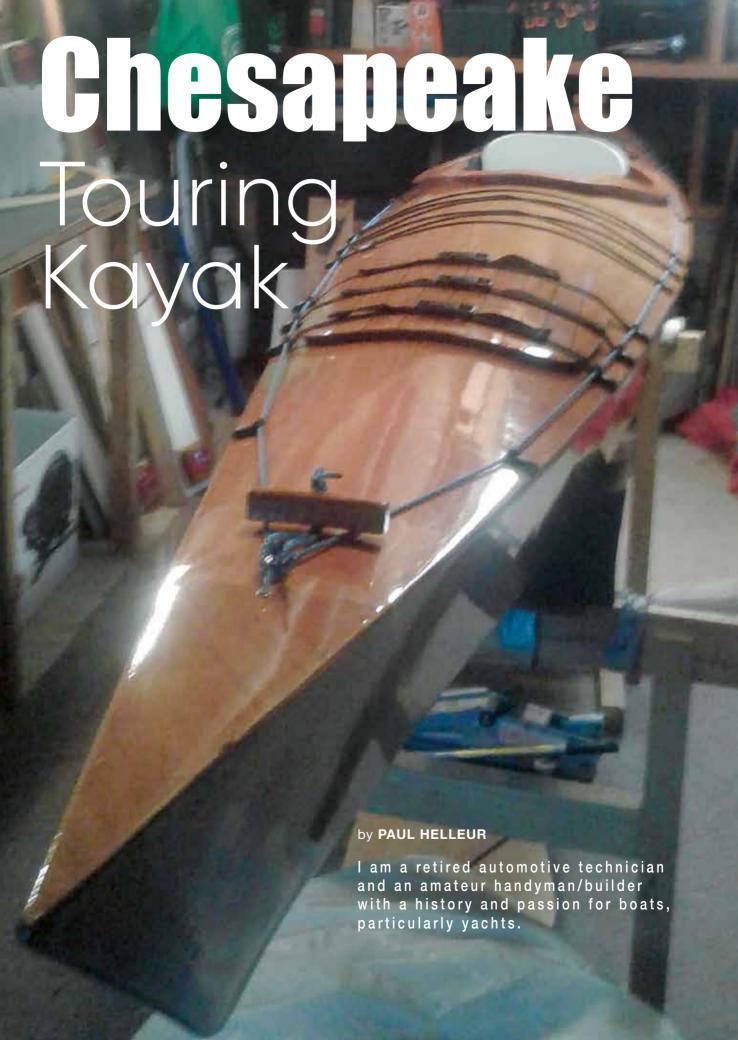
That experience changed many lives, in Australia especially, and in Europe and the US.

There are about 200 or more Norwalk Islands Sharpies out there, and a very loyal fraternity that has grown with it.

Mostly though, I will miss a conversation that has spanned three decades.

Margo, our thoughts are with you and your family, and Bruce, wherever you are, you will not be forgotten.

Thank you. From us all



y wife Sheila and I live in Torbay on the North Shore of Auckland, New Zealand, and are a mere five minute walk to the boat ramp of Waiake Beach, a truly picturesque spot. Still living in our family home after 30+ years. I have the space in my garage workshop for various projects and usually have some project on the 'qo'.

When my family was younger, I was a member of the local Torbay Boat Club. Here my son learnt to sail and I was an instructor in both the local 'Waterwise Programme' for school kids and later at club level.

Over the years I have owned two Townson keelers which I sailed with my son around the Waitemata Harbour in Auckland, New Zealand, and a number of sailing dinghies and kayaks.

My only previous boat building experience before the Chesapeake, was one small dinghy, built as a stitch-&-glue to my own design which while it looked great was extremely unstable.

This latest project, a Chesapeake Touring Kayak 18ft, I built from plans that I acquired from an internet site. Built over frames, it has all copper fastenings with copper nails and all the joins are sealed and glued with epoxy and tape. All the plywood used is genuine marine ply as per plan.

Fibreglass cloth has been used inside and out. The hull has 12

coats of International Spa Varnish rolled and brushed on. The deck has nine coats applied with a roller. All varnishing has been tipped off with a fine bristle brush.

Ten swimming pool noodles, (from the \$2 shop) 1.5m in length have been fitted under each hatch, 20 in total, for buoyancy. These can be removed easily if I need the space for storage or for my lunch or if the kayak takes on water.

The base and seat back is plywood with closed cell foam glued on for comfort. Most of the fittings have been made as per plan.

It has taken approximately three years to finish as I worked on it part time, in between family life and other projects.





TOP: Finished project, waiting for better weather. ABOVE: Front hatch, second attempt looking good.

The last part of this kayak story is a traditional Cedar double ended paddle that I am working on at present.

WHAT I HAVE LEARNT FROM THIS PROJECT

How important it is to follow plans.

Perseverance is crucial: The hatch covers took two attempts. Although they were made to plan, getting the curve correct was a challenge. The second attempt was made of plywood strips, put on over Gladwrap and laid over the hatch holes in the kayak. I then fibreglassed the top surface with cloth and epoxy. Once this was set, I removed the cover from the hatch holes and repeated the process with the inside of the hatches. This second attempt was much



Cockpit 50mm wider than plans.





Just finished deck hardware.



Sleek looking bow should cut through the water nicely.

more successful and I was pleased with the overall look.

Making fixtures and fittings meant I spent considerable time in our many \$2 stores which along with Number 8 Wire/Kiwi ingenuity meant I was able to fashion these at a very reasonable price.

Sanding and fibreglassing have been very challenging because of the dust that it created and I needed to move the kayak outside for some of the bigger jobs. (Sometimes upsetting a neighbour with the noise that it created).

Getting the temperature correct for varnishing has also proved tricky. During the cooler months drying between coats was a real challenge at times, meaning the project took much longer than I had first envisioned.

SOME ADVICE FOR THE AMATEUR BUILDER

Don't listen to people who say you can finish a project like this in a few weeks. If you want to build a kayak to this standard, it takes patience, effort and perseverance. At the lowest point I was tempted to give up and take a chainsaw to the hull.

Stick to the plans/ read them carefully/ over and over.

Work in a warm, dry environment/ wood must be kept dry at all times.

Consider a paint job instead of varnish, probably much quicker and easier and you could hide any imperfections with filler.

A purchased seat could make the job quicker.

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Frame and cockpit rim before deck fitted.

SOME ESSENTIAL REQUIREMENTS

- · Lots of patience and time
- · Work spaces like trestles and table tops
- Good lighting
- Electric tools like drills, sanders and saws, a multitude of hand tools, 40-50 clamps, 80-800 grit sandpaper
- · Hearing impaired neighbours
- Someone to bring you frequent cups of coffee and yummy date scones.

I AM PLEASED THAT

- I listened to my grandson when he encouraged me to keep going
- I didn't use any filler to hide imperfections
- I persevered and was very fussy with each part of the project.
- The finished kayak shows the grain, texture and colour of the wood



String line – an essential tool for keeping things straight.

- I had decided on a varnish finish from the start, even though it made the job harder in the long run
- I wanted to build a true traditional style kayak and I can now happily cross this off 'my bucket list'.

So, I am very proud of my finished project. I am looking forward to a nice sunny day when the paddle is finished and I can launch this Chesapeake Touring Kayak for the first time. I hope to tour around the bays close to my home.

Meantime it is back to my workshop for me. Bring on those scones!

My next project is restoring an original 1960's Sunburst Sailing Dinghy designed by Jack Brooke. A much quicker project. I hope my two New Zealand based grandchildren will be sailing it at beautiful Waiake Beach, Torbay early in 2022.

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BOAT SHOW TRAPS AND PITFALLS

by MARCEL VAARZON-MOREL

Eventually, the sporadic lockdowns will cease and certainty in boat shows will once again become the norm. However, I was lucky enough to sneak in a trip to the recent Sanctuary Cove boat show where I saw several signs on vessels, 'Vessel On Loan By The Owner'. And while on face value this appears to be an act of good faith, by helping out its respective broker or builder, the questions I found myself asking were what are the broader issues, legal responsibilities and requirements for all parties to be protected if it all goes awry.

similarly, it was recently put to me, what are the liabilities and issues that may arise when a vessel is loaned to a prospective purchaser in lieu of their vessel not being launched in time. In offering some legal thought to both these questions I make no apology for looking at the broader picture of relationships, often overlooked by lawyers.

The loaning of the vessel is built on trust and there is an implied term that the builder or broker and customer will have the skill and knowledge how to handle and look after the boat in question. This implied term forms part of the common law contract known as a 'bailment'. Whereby the owner (the bailor) of the boat creates a temporary right when lending the vessel to the borrower (the bailee) for an agreed purpose. In some situations the parties may have drafted terms of an agreement and these are referred to as express terms however, more often than not when it comes to boats for some reason the written word is replaced by the gentleman's hand shake or should I say gentleperson's hand shake.

In essence what occurs is the bailee takes possession of the boat while the bailor retains the ownership interest. During the specific period of bailment, the bailee's interest in the property is superior to that of all others, including the bailor, unless the bailee breaches some term of the agreement.

There are three types of bailments:

(1) for the benefit of the bailor and bailee; a bailment for the mutual benefit of the parties is created when both parties take a benefit such as when a boat is repaired the repairer or the bailee receives a fee in exchange for his or her work while the bailor receives a repaired boat, obviously a pretty common situation.

- (2) for the sole benefit of the bailor; where the owner leaves the boat at a marina and the marina operator offers to look after it free of charge.
- (3) for the sole benefit of the bailee; this being typically the situations in discussion where the boat builder or broker has taken the benefit of showing the vessel ultimately for making sales. Additionally, a bailment is created when the keys to a boat are given to a person to take the boat for the agreed purpose either to the boat show or for simply for the bailee to use the boat for their enjoyment.

As to defining a bailment, when a boat builder loans a boat to a customer in lieu of their boat not being ready on time, it could be argued that this bailment could fall in any one of the above camps, the question being who takes the benefit? And becomes a significant question in respect to liability as discussed below.

In understanding whether a bailment is created three elements are generally necessary:

DELIVERY

The boat needs to be delivered to a bailee ultimately allowing actual possession of or control over the boat. The delivery of actual possession of the boat allows the bailee to accomplish their duties without the interference of others. However, control is not necessarily the same as physical custody and could be where the boat owner simply gives the keys of the

boat allowing access. The law construes such action as the equivalent of the physical transfer of the item.

ACCEPTANCE

A requisite to the creation of a bailment is the express or implied acceptance of possession of or control over the boat by the bailee. That is a person cannot unwittingly become a bailee. As a bailment is a contract, knowledge and acceptance of its terms are essential to its enforcement

CONSIDERATION

Is the exchange of something of value and must be present for a bailment to exist. As long as one party gives up something of value such as their boat, this action is regarded as good consideration. And it is sufficient that the bailor or boat owner/builder suffers loss of use of the property by relinquishing its control to the bailee.

RIGHTS AND LIABILITIES

The duty of care that must be exercised by a bailee varies, depending on the type of bailment.

In a bailment for mutual benefit, the bailee must take reasonable care of the bailed property and may be held liable for any damages incurred from their negligence. When a bailor receives the sole benefit from the bailment, the bailee has a lesser duty to care for the property and is financially responsible only if they have been grossly negligent or have acted in bad faith in taking care of the property. In contrast, where a bailee receives sole benefit they must exercise extraordinary care for the property. In this third scenario the stakes are high for the broker or boat builder or customer who is loaned the boat, not only should there be a written agreement with respect to this scenario, an insurance policy should reflect the required coverage. Additionally, in respect to boat shows the boat show organisers policy needs to respond adequately in this situation.

TERMINATION

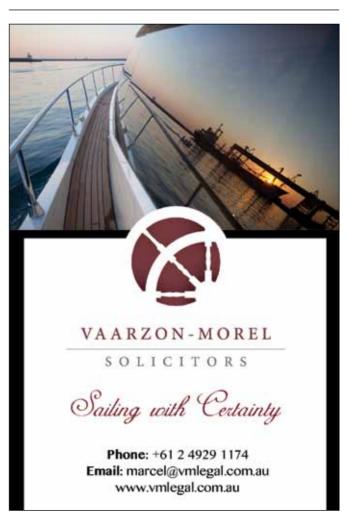
A bailment is ended when its purpose has been achieved, when the parties agree that it is terminated, or when the bailed property is destroyed. Therefore, once boat show or loan period finishes, the boat needs to be returned to the bailor or otherwise disposed of pursuant to the bailor's directions.

Once the purpose of the bailment has been completed, the bailee usually must return the property to the bailor depending upon the terms of the contract. If, through no fault of there own, the return of the property is delayed or for example becomes impossible due a cyclone the bailee will not be held liable for non-delivery on demand this is often referred to as 'force majeure' and such a

clause should always be contemplated. However, the bailee will be responsible for the Tort of conversion for unjustifiable failure to redeliver the property as well as its unauthorised use where the boat is not returned as agreed. Therefore, the importance of terms such as, delivery times and place are paramount to avoid possible future tensions.

SMOOTH SAILING ...

At the end of the day a properly drafted contract will assist in keeping all those involved friends as often the offer of a loaned boat comes on the back of some form of relationship involving trust. Whether it be a boat builder or broker exhibiting borrowed boat or a builder lending a boat to a customer, in essence we are not inventing the wheel, as a bailment was created in every situation. However, whether a written document formed the basis of all these loan situations is guestionable. And as they say prevention is better than the cure as it's the unforeseen issues that need to be discussed between the boat builder, broker/ exhibitor, customer and the relevant insurer and possibly a lawyer with the prerequisite knowledge of boats and boat shows.



NEW STAYLES SKIFF



by JONATHAN WALLIS

It was indeed good to hear from our good friend Patrick Groot in Warrnambool and President of the Warrnambool St Ayles Skiff Community Rowing Club and latterly also Secretary of the St Ayles Skiff Community Rowing Association of Australia (SASCRAA), that there is yet another skiff build happening, this one the first in Australia to be undertaken by a High School, and nicely situated at the beautiful southern New South Wales port of Eden.

een so often, and always admired during my sea faring days from out to sea. Eden is today a vital maritime and fishing community, though less so than when the Tuna Cannery closed in 1999.

It is also the legendary site of the stories about 'Old Tom', the Orca whale who lived from 1895-September 17, 1930), a killer whale well known to whalers in the port of Eden. He measured 22ft (6.7m) and weighed 6 tons. Old Tom attained some fame in maritime circles being the leader of a pod of killer whales, also known as 'the killers of Eden', which had helped the whalers by herding baleen whales into Twofold Bav.

And this whaling history is still evident today in Eden, where Thomas Raine established the first whaling station on mainland Australia at nearby Snug Cove in 1828, and whaling continued in Eden until 1930, making it the longest continuous shorebased whaling industry in the world. It is felt that the building of this Skiff will indeed refresh and encourage interest in this long and colourful maritime era of Eden's history.

It is recorded that prior to European settlement, the orcas already had a special relationship with the local Yuin people, and it was through this connection that they bonded with the whalers, with Yuin men often crewing the whale boats. The orcas would alert the whalers to their presence and then assist in killing them, then being rewarded with choice portions as their share of the kill. Eden is famously noted as one of the few places in the world where interaction between orcas and humans has been recorded. Today this history is recorded at the Eden Killer Whale Museum.

An important local character was Benjamin Boyd, who arrived in Eden in 1842, becoming the major pastoralist in the area, and also the major whaling entrepreneur. He established and built Boydtown, using it to service his properties on the Monaro and in the hope that it would become a major port to rival Sydney and Melbourne. Seven years later he was declared bankrupt and left the colony in disgrace. However, Boyd surely left his mark on the region, with Boyd's Tower, Boydtown, and the Seahorse Inn, all historical reminders of his importance in the area todav.

Well very recently the Boydtown Shipyard entered into a sponsorship arrangement with Eden Marine High School (EMHS)





TOP: Students at work on Eden Skiff. Image Peter Ayling

ABOVE: Laying out a skiff. Image Peter Ayling





TOP: Year 9 students working on the boat supported by teacher Brendon Richards and volunteer Kevin Heath. *Image Leah Szanto*

ABOVE: EMHS industrial arts teacher Brendon Richards, and Year 9 students. *Image Leah Szanto*

to begin building a wooden Saint Ayles skiff at the school. This is a simple four oared rowing boat, designed by Iain Oughtred and inspired by the traditional Fair Isle skiff, and it closely resembles the traditional whaling vessels once used on Twofold Bay. Happily, the Eden Marine High School has a Technical Arts Centre on its campus, and recently funds were made available to add additional woodworking facilities.

Peter Ayling, Secretary and Treasurer of the Boydtown Shipyard, told us that the objective is to teach boat building skills and ultimately provide boats that can be rowed by students and/or community members in international rowing events in cooperation with St Ayles Skiff Community Rowing Association of Australia (SASCRAA), who currently conduct such competitions.

"We have underwritten the \$10,000 cost of the boat to be built, and construction commenced in term

one of 2021. He added that interested students in years 7-10 are encouraged to participate in the project, which is anticipated to take the whole school year to complete, if not part of 2022 as well.

Assembling a kit of this size is quite a big task, students will learn many skills such as shaving edges, painting and epoxy coating and constructing the oars," Mr Ayling said.

EMHS has established the project under the competent guidance of their industrial arts teacher Brendon Richards, and it is envisioned it will be good for confidence building as well as teaching them traditional boat building, an appreciation of history, with an on-going involvement with the vital international Saint Ayles community.

They are hoping to involve local community members with wooden boat building experience to mentor and assist small groups of students on Wednesdays this term and as the project progresses to become further involved in both rowing, and the social aspects of this world-wide movement.

So far all is going nicely, Peter tells us, and they recently glued the Hog in situ and are beginning to scarf the plank for fixing. If possible, they will remove the shell from the moulds and display it on a trailer in the Eden Whale Festival scheduled for late October.

There is also hope that this project may even lead to re-establishment of the Eden Regatta, first held in 1868 with whale boat racing as a major event, progressing

in 1876 to include sailing and rowing races as well, continued until being discontinued in1938. And while this is at the moment largely a pipe dream, it would certainly make an ideal event for both rowing their St Ayles skiff, and an attraction to bring competing skiffs from all-over South-Eastern Australia and beyond.

In conclusion, Patrick Groot added: "It is indeed a pleasure to welcome another group to the St Ayles community fold and this is especially true in the case of the first school build. I have no doubt that they will participate in future St Ayles Skiff events and it might even transpire that an Eden crew could be enticed to row in a planned Australian Whale Boat Championships being organised for Warrnambool in early 2023."

Please contact Peter Ayling if you would like to be involved in this community project: 0429 061 234



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