In Search of a Cruising Dinghy ~ Emma Keir

HAVE BEEN MESSING ABOUT IN BOATS since I was out of sight of land in a Mirror dinghy at the age of eight. I worked on commercial ships for thirty-one years then in the bus industry for another ten years until I took early retirement on a reduced pension due to poor health. Now single, and with no debts, my thoughts have turned again to a small boat.

With limited resources, financial and physical, I want a boat I can keep in the garden, trail to the Lakes and the Scottish Lochs, and in summer use it in the Irish Sea/ Western Isles. The area I really want to explore is the South Galloway coast and Solway Firth. This is an area of rocky lee shores and cliffs in the prevailing winds with extensive drying flats and continuously shifting sand banks east of a line between Southerness and Silloth. There are few sheltered anchorages and with a few exceptions most of the ports dry at low tide. I felt that a sea-kindly boat that will sit relatively upright when dried out and with a centreboard would be required. I am not getting any younger so a cuddy or cabin would also be an asset, despite the windage. It has to be small and light enough to launch and recover on my own, reasonably comfortable to sail and sleep aboard with the ability to ride out the odd blow if I am ever stupid enough to find myself at sea in such circumstances.

I have had a couple of abortive starts... I found I could get a Mirror onto the roof rack unaided. Ah-hah! No trailer. Ideal for Derwent Water in the summer and anywhere else I would have to pay for parking. I was given an old Mirror dinghy that had been completely stripped but then the car's gearbox failed. It was the height of the scrappage scheme and I couldn't get a decent car in my price range. Finally in desperation I bought a Reliant Scimitar. It was reasonably reliable if rather thirsty, but being fibreglass meant it had no roof rack. (I never got round to fitting a towbar, I was too busy fixing everything else. I eventually sold it for more than it had cost.)

I was also given a Heron on a trailer which turned out to be completely rotten below the waterline. (The owner just couldn't bear to destroy it.) Eventually I was in a position to think about a boat again... Then along came Covid. By the end of 2020 I had a severe case of cabin fever and was desperate to get on the water. A plastic kayak provided short term relief, then I started looking at boats again.

I liked the looks and easy build of the Stevenson Weekender*.



Emma acquired the 14ft Wharram HITIA *Rock Steady* as an unplanned purchase, almost an impulse buy, but she is now planning to turn it into an effective small cruiser.

This photograph was taken by Jennifer from the Bass Boat. The wind was heavy and gusting over lumpy water, sufficient to make us sail under just jib and mizzen to be comfortable. In the photograph, the sunshine and the water surface are misleading, as usual. Emma has reduced sail to jib only, with the wingsail and sprit lashed to the mast. Nevertheless, it performed well

I purchased study plans for a CLC Pocketship; the Salmo 18-C is very interesting too... Water ballast, cuddy and a self-draining cockpit. I then found the DCA and had a look at the Rebell, Roamer, YM Senior,



^{*}See Bill Paxton's review and build account on Duckworks, and this photograph from Chris Cunningham's *Small Boats* archive (*right*). Popular in America, partly because of the straightforward build, but also its loose resemblance to the Friendship Sloops of New England



Shipmate 16, and I borrowed plans for the Blandford Tarpon (DCA BULLETIN EXTRACT: 076/12 (1977/3)) and the Redman Barbel 14 (which comes close to a lot of my doodles) from the DCA library. There is a description by the designer and line drawings of the Barbel in DCA BULLETIN EXTRACT: 021/13 (1964/1). I also had a good look at a West Wight Potter at the Coniston rally. I have found that one quick way of comparing designs is to look at the cutting list, particularly the number of sheets of plywood plus the amount of hardware required. Special and non-standard ironmongery soon push up the price and increase the difficulty of repairs/replacement.

The Barbel plans impressed me in many ways. There are a lot of clever ideas and I particularly like the one of all sail and anchor handling being performed while standing in the forehatch. However, it requires 12 sheets of plywood and weighs 400lb with the 3/8ins steel bilge keels. There is very little space to move around, the midship section through hull and cabin is almost a complete circle with bilge keels and I suspect it would have a very uncomfortable motion in any sort of sea. Worse though, it is slow. The designer claims 3 knots with a potential maximum of 6 knots (?).

I read every DCA report on voyages and rallies in the northern Irish Sea and Solway, and bought a pilot book, and found that the tides in my intended cruising areas (Annan to Mull of Galloway) often run at 6+ knots. In my research I found Wharram Hitia owners reporting speeds of 6 to 15 knots with a few claiming to have achieved 18 knots. By this time I had spoken to John Hughes a few times and read his articles on cruising in his Hitia 17. For use in the upper Solway one of my design criteria was a centreboard. After several talks with John I realise this was unnecessarily restrictive as all I really need is a 4ft pole! However I was attracted by the various designs and am pleased to have studied them.

Catamarans were a non-starter for me as I cannot count on a team of willing helpers to carry the parts on to the beach and help assemble them. As my hopedfor sailing is working the tides anchorage to anchorage, or port to port (usually drying at LW on the Galloway coast), I feel a boat which gets to the next berth quickly and has room to move around in/on will on average be more comfortable to cruise. Less fatigue equals better safety. Finally the light came on when I had another look at the Wharram website. In the 'classic' designs is a design called Maui. It is nearly 17 feet long but at 8 feet wide is narrow enough to be trailed without *(Left)* Chesapeake Light Craft's POCKETSHIP. Attractive but expensive (£6,490 for the kit!)

dismantling. I purchased the study plans. Unfortunately, but finally fortunately for me, there was a glitch with the payment system and I phoned Wharram to find out what the problem was. Purely by chance Hanneke answered the phone and we talked about the relative merits of the Maui versus the Hitia 17.

Briefly, the Hitia is assembled from flat sheets tied at the edges and to the stem and stern posts. Plywood bulkheads are wired in, then the whole lot is sheathed in fibreglass and all the internal corners filled with epoxy resin filler. It has a small self-draining cockpit and hold with hatch covers. The Maui is built up of framed ply bulkheads fitted to a 'backbone' (keel, stem and stern posts) all joined using wooden sections, stringers are fitted and then the plywood skin, all glued and screwed. As designed there is no cockpit or below deck stowage. The Hitia is promoted as a beach cat, being car-toppable, and the light hulls are easily carried by two persons. The Maui is heavier and a bit narrower overall so the rig is smaller, 100 sq. ft. versus 160 sq. ft. for the Hitia, so it is slower but it is much more suitable for keeping on a drying mooring especially if the bottom is hard. Hanneke told me that the plans are still listed as there is a small but steady demand, in part for this reason.



(Above) This is a sophisticated ocean-going Wharram cat in build, the Tiki 46 – but the basic construction is classic early Wharram. A plywood kelson is slotted into the bulkheads to gives it longitudinal shape and strength. Being a big boat, it has an outside keel, too, unlike the Maui. The stringers and bulkheads provide crosswise strength. This hull is usually diagonally planked, as it is more rounded than the normal flat-sided Wharrams, which require plywood sheets to bend in one plane only

By this time I had been in touch with Giles de Bertodano several times and had borrowed several sets of plans to study in addition to several books. He really does provide an excellent service and it is much easier and cheaper than tracking down and purchasing books which you may only read once. I mentioned to him that



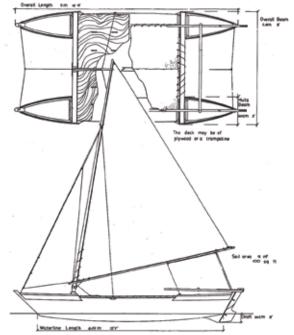
I was considering a Maui and to my surprise he sent me a set of Maui plans!

James Wharram Designs also gave me contact details for three Maui builders of whom 'Barrie' replied to my approach and has been very supportive providing many photos of his two previous builds, a Tiki 21 and a Hinemoa 23. Of the two buildings methods he said 'I hate the stitch and glue of the Tiki boat, and would never build another one. The Hinemoa, on the other hand, I loved the build. Although the Hinemoa is larger the build is the same as the Maui. I enjoyed the classic build, a proper woodwork build. The Tiki was a sticky mess. Making good fillets is a lot harder than Wharram says it is, and West system epoxy is very expensive. During the Hinemoa build I used West for everything. Next time I'll use wood glue for the construction and only use West for the outer sheathing, I'll also use West for the bilge, but above the waterline I'll only use a wood preservative/ sealer.' This sounded good and set me to re-appraising what I had found.

All the monohulls have similar restrictions, either being ballasted or relying on crew weight with cramped cabins or cuddies. A catamaran with a folding spray shelter could provide as much protection for the helmsman as most of those designs, with far more deck space for a tent or canopy when not sailing. Maui No.81 shown on Wharram's website appears to have been built with a well or cockpit between frames 2 and 3 and in another photo the helmsman appears to be sitting on the aft beam with his feet inside the hull. John said there was no way he would sit in his Hitia cockpit so

(Left) Rock Steady, the 14ft HITIA, close-to

using space in the hull as a trotterbox seems a good idea to me. Barrie had come to a similar conclusion and plans to make even bigger changes... 'When I build my Maui I am going to build the hulls to plan, but I will raise the bulkheads and build a sit inside space like the Hitia17.' (In extremis I suggest sitting in a cockpit with a canoe type deck and jacket, while far from ideal would be surviveable. No doubt this suggestion will cause some controversy.) Then the plans arrived. I must say that first impressions were rather disappointing.



⁽*Above*) Unlike the HITIA, the MAUI is a traditional build: not 'stitch and glue'. it has plywood panels glued and screwed to a strong wooden frame consisting of chine logs, keel, bulkheads, etc.

Nearly a third of the thickness was promotional items and a booklet on West systems. The build instructions are generic to the bigger classic boats and little is directly applicable to the Maui. There is a lot of reading to find nuggets like, '...screws should be spaced 5 to 8 cm along plywood edges' and 'builder's opinion is that the boat sails to windward better with a narrower forefoot.'

The original three drawings have been added to with a smaller detail drawing which relates to the bigger boats and one showing an alternative sailplan. The design itself seems to have been drawn from a single prototype without much thought about how it would be used or any updates. I am not impressed by inaccessible spaces protected from rot by cuprinol and hope! To be honest I think I had hyped myself up during lockdown and had also spent time examining the plans for a much later Pahi 42, which are very detailed covering many large sheets of paper (and cost a lot more). Hanneke did warn me that the plans were limited... I phoned a friend. John and I talked for some time and he photographed the Hitia cockpit plans for me. I went to bed and slept on it.

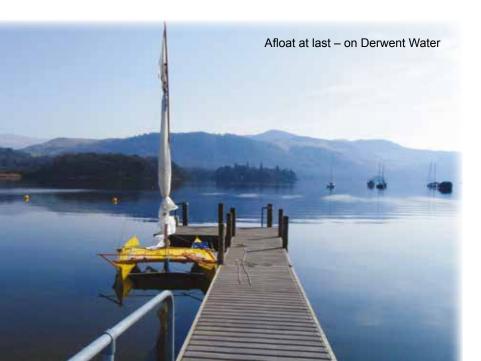


(Above) First sight of the HItia 14 ...

The next day I contacted Barrie and received this reply: 'I like the idea of it being below 8 foot 4 inch (2.55m), and keeping it on a trailer ready for launching. You will notice on the plans that the outer bulwarks are not full length, probably to save a few inches on the beam, I intend to raise the bulkheads, which will allow the crossbeams to be bolted to them and form the front and rear of a small cockpit. I was going to put full length bulwarks on it and bring the cockpit sides out to the bulwark. I once saw a Maui many years ago in Perth. It was sitting complete on a trailer and I thought it looked fantastic. When I build mine I'm going to fit it with a sprit rig, I had this (rig) on my Hinemoa and I was very impressed with it.'

To be completely fair to Barrie he did suggest some other designs including the Woods Design Chat 18 which I did look at. John's photographs arrived and I spent an afternoon closely studying them and the Maui plans. Hanneke promotes the later designs as lighter and easier to build... but after Barrie's comments and having read a few blogs I am appalled by the quantities of resin and filler required. (And the endless sanding.) I prefer the appearance of the classic Maui design to the Hitia which just does not 'do it' for me. So to find a second-hand boat. Hopeless optimist! Further searches revealed not only a lack of catamarans but almost of anything I could afford. And what I could afford wasn't worth having!

My optimistic first thought was to get a boat in the water by Summer 2022. I am fortunate in having a large





...and neatly loaded onto the roof rack

heated space where I can work over the winter but I am not keen on the dust and smell of resin in the house. Having dismantled a Mirror I know that internally painted spaces will survive for decades in a cared for boat so I decided to use either epoxy or Titebond 3 waterproof wood glue and stainless steel wood screws for assembly, after all the boat was designed to be screwed and glued, then complete the fit-out before moving outside to sheath the hulls in the spring. As the resin is protective, not structural, I am looking at the possibility of vinyl ester resin which is more moisture resistant than polyester resin but half the price of epoxy. (Being realistic the boat probably only has to last me 10-15 years!) So there we have it... I had almost convinced myself. It is probably the biggest most seaworthy boat I can build quickly without great expense, trail easily, (take off the number plate and chuck it in the water!) and camp aboard. I just hope I am right!

On the 25th May 2021 I ordered the plans for Maui No. 550 and started collecting materials.

My optimistic plans to have the boat in the water by Summer 2022 have taken a knock in the face of covid induced supply chain problems, (the planer/thicknesser ordered in June was only delivered in September). Then there were house repairs plus having to replace my car. I managed to attend a few DCA rallies last year but due to lack of a suitable boat, then car, I missed out on a lot.

By February I had cut the bulkheads and started framing them, and rough-cut the keels, but I didn't want

to end up back in the same situation again with an unfinished boat. I decided to concentrate on having the Mirror ready for the Coniston rally in April. Of course, I will fit a swinging centreboard! David Sumner has been very helpful. This will of course take building time away from the Maui. Attending rallies will also take building time from the Maui, but I want to be a sailor not a builder. If I can complete the Maui hulls this year I think I will be doing all right. But I was still unhappy about the Mirror and know how easy it can be for a larger person to fall out of one.

Searching online markets I found a Dart 18 on a road trailer at a very low price. I

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suspect it was out of class and the owner just wanted rid of it. I discussed buying it and fitting a smaller rig with John Hughes who suggested I contact Dave Jennings our Technical Officer, whom I duly emailed. Dave replied with a considered and reasoned response which helped me decide that I could well be spending a lot of time and money on something that would ultimately be unsuitable and unsaleable. After thanking Dave for his time I had one more online search, more in hope than expectation, before retiring for the night, and there was a Hitia 14 only 100 miles from home. Of course I was going to buy it!

I sent the link to John and his response was short and succinct: 'Buy it!' I was on tenterhooks for four days before driving to Glasgow to buy, I mean view, the boat... and drove home with it on the roof rack. Well I couldn't not, could I? We sailed home in our first storm together, over Beattock in 55 m.p.h. winds, the boat and car heeling to the gusts, but nothing shifted and we reached home tired but elated.

So I am now the owner of a 14 ft Hitia and I am still assessing what I have got. The first attempt at assembling and setting the sails was a steep learning curve. It took me 2 ½ hours to set the mainsail. It is a wingsail with a zipped sleeve around the mast, a fourteen-foot sprit and brails. I managed to wrap the halyard around the mast then when I hoisted the sail it crossed over the jib halyard and jammed solid. I am glad I did it in the back garden. I tried a temporary tent over the platform and determined that I could sleep aboard and have planned out storage. (Removable boxes on the hulls in front of the forward beam plus some items in the hulls.) The first sail was on Derwent Water on the 25th March... And the learning curve went vertical!

The boat sails at about 1 knot when there is not a ripple on the surface. When the wind freshens up it goes like coal off a fireman's shovel. Returning to the jetty was exciting and for the first time in my life I found myself wishing I had a brake pedal on the boat! I also learnt that while afloat I can crawl out onto the stern to attach the mainsheet horse without submerging the aft

deck (well, I needed to lift the boat by the aft crossbeam to get it into the water and really didn't want the sheet horse between the sterns taking me with it. All the lessons learnt will be incorporated into the Maui build and I am now rather pleased that I did not get very far with it as I hate having to, 'Redo from the start!' I am now planning to modify the rig so that all sail handling can be done afloat rather than on the beach, gain more experience and attend as many rallies as possible this year. *EK*

Some Editorial words of caution (!)

• Emma, I'm worried that you think it will be necessary to sheathe the hull of a traditionally-built plywood boat. It won't need to be stronger or heavier – it isn't a stitch and glue job, so it will have heavier scantlings all round.

The late Malcom Evans (DCA) built a big 17ft Jack Holt Roamer *Lively* in his front room back in the 1950s, then had to cut it in two down the keel to get it through the door. He would have glued it throughout with Cascamite or Aerolite glue *(See below)*. The boat now belongs to Keith Callaghan of Hadron dinghies, a high performance sailboat designer, who built a nice cuddy on it. He keeps it on a mooring in the Deben Estuary. It is now 67 years old and will have been coated with oil-based marine paints from new. You might go one better and use epoxy primer – Jotun (£10 a litre) or Hempel (£30 per twopack) for example – to keep the hull happy, then two-pot polyurethane paints, which will give you an impervious finish with or without a full sheathing job.

• As sheathing would be the last task after a long, hard, expensive build, why take risks with a process that might ruin the whole job? Have you used vinyl ester resin before? It might be a very expensive way to save money. I sheathed the hull of a Mirror 16 a long time ago, when I had to use polyester resin and chopped strand mat. It was absolute purgatory, even though it turned out well. It is a BIG job. You now have a variety of epoxy resin brands to choose from; WEST will be the most expensive. I used SP106 for a while and liked it

• "I am not keen on the dust and smell of resin in the house..."

Epoxy resin does not smell. Polyester resin is the one that stinks. Sheathing should be done indoors if at all possible, to manage the temperature and keep the air dry. Slow-setting epoxy takes about 45 minutes to go off in warm conditions and can be worked on next day.

• Glues. I'm going to conduct tests on Titebond III – big claims have been made for it. But I would use a tried and tested industry choice for wood if I were you – such as Aerolite UP 4145 One Shot Powder Urea Resin. Small quantities can be bought through specialist websites like RESTORATE. It is waterproof, can be worked after 24 hours and is is stronger than the wood after a couple of days' curing. Why would you want better? Cascamite, much maligned over the years (wrongly so), should now definitely be avoided as its new manufacturer, Polyvine, has interfered with the formula and it is no longer a glue but a cake icing mix. I know because I've tested it (not on cakes!). I was going to add a word or two about plywood, stainless screws and fitting a c/board to a Mirror, but they can wait until we meet at another rally! *Keith*