

Backyard Boatbuilding: The Almost Classic Look, by Tim Evans

Or, how to build a small dinghy using cheap ply and expensive epoxy. First published in B137:37. A refreshing take on simple economical boatbuilding that is in tune with the current topic of 'Microboats'.

A couple of years ago I decided to build a rigid tender for use when my 'ocean-going' West Wight Potter was on a mooring. Like many people I have a particular liking for boats which look good as well as sail, so I tried to make the resulting dinghy as 'boat-like' as possible. I offer the following article to those readers who might be interested in how to build something similar that looks fairly traditional but which is strong and simple to construct. Using modern materials, particularly epoxy resin, it's as easy to make a boat that looks and sails well as it is to make a floating packing case.

The dinghy covered in this article was designed to be built without specialist tools – the only woodworking tools you really need are a plane, a jig saw and a few G cramps – although some others can make life a bit easier. It is glued and finished in SP epoxy, which makes the use of cheaper ply and softwood possible.

The cost will of course vary depending on how much your ply cost and upon how it is fitted out, as the stainless steel pintles and gudgeons for the rudder will probably cost as much as the two or three sheets of ply needed to make the dinghy. Alternatives are fairly easily made if you can't scrounge any. Although it must be stressed that the use the boat is to be put to needs to be considered. Mild steel bits and pieces may be OK on a boat which lives in a garage for most of the year, but would be useless on one exposed to the elements on a long term basis. A visit to the hardware/DIY shop can provide eyebolts etc. which will cost you very little. Also it is worth collecting odd pieces of hardwood, which are often discarded in the building industry, but which can save you pounds – the mast support came from a window frame offcut – and as a real traditional touch, I bought the jute fibre rope from B & Q, that well-known northern chandler.

The point is not just to make do with any old junk; this leads to the floating packing case type of DIY, but to understand what the item needs to do; this includes the boat itself. It is amazing what bits of improvisation can be seen on old boats. If you don't like my boat, perhaps this piece will help you work out possibilities for your own creations.

Now while I like making things, I also like to get them finished, hence I have always designed things so that it is as simple as possible to get the desired result. This dinghy was designed, a very grand-sounding term for the way I work, to carry three or four people as a tender and to sail with a couple of twelve year-olds on board. I really wanted a clinker stem dinghy; I do not like pram dinghies. The problem was how to accommodate the practical with the aesthetics.

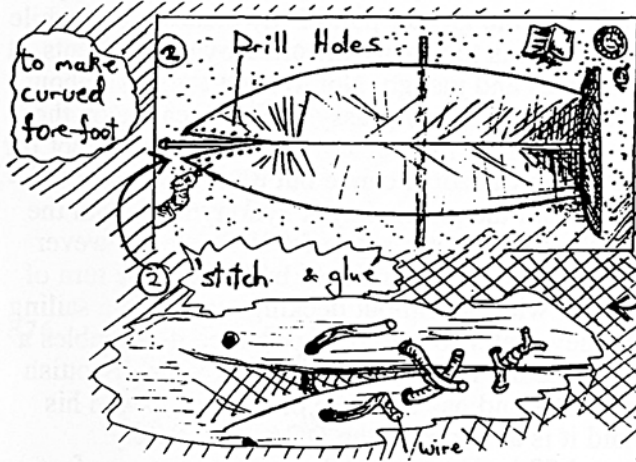
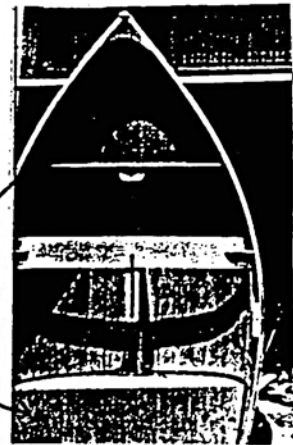
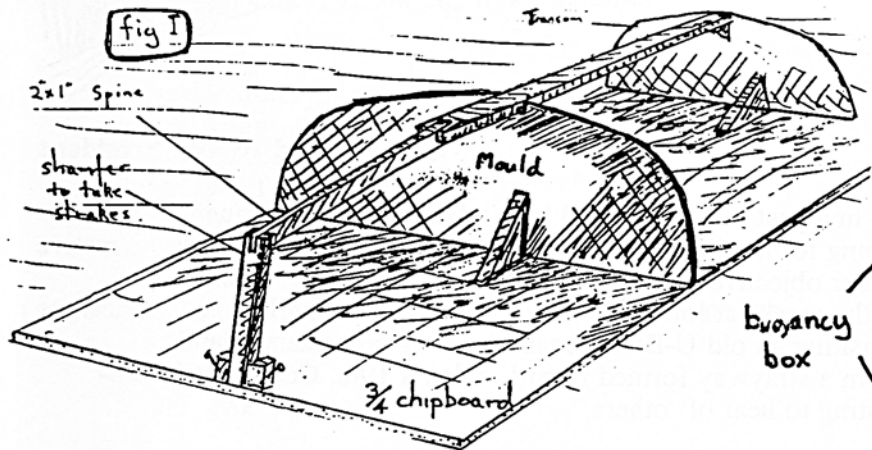
The result of my deliberations was to use 6mm ply strakes formed over a single mould, built on a base of chipboard, although 4mm would produce a lighter boat. The rigidity comes from the box sections

created by the buoyancy boxes. The bottom of the boat is really a large panel rather than being built up of strakes, again made of 6mm ply, and there is a fair amount of buoyancy forward. The strakes were made in matched pairs, the approximate shape being worked out using a scale half-model made from a cornflakes box and masking tape. Being lapstrake it is easy to plane the strakes where they are a little 'off' once they are fixed together.

The stem, mould and transom are set up on the bench/building board in the correct position, linked by the 2 x 1 spine. The bottom panels are added and then the strakes. The use of an inner stem means that accuracy in cutting the angles on the end of the strakes is not crucial, as they can overlap the inner stem and be cut off level when the resin has set. The outer bit of the stem can then be added. Masochists can of course use a one-piece stem and carefully cut a neat housing for the equally neatly cut strakes. The buoyancy compartments give the boat much of its rigidity and it is very strong. The whole lot was bonded, strengthened and saturated with SP epoxy which accounted for half the cost of building the boat. As this makes the boat so much more durable I would recommend it. What is more, a paste made from resin and micro-balloons, which are a special filler for the resin, can be used as a fillet between the ply, reinforcing and filling any holes in one go.

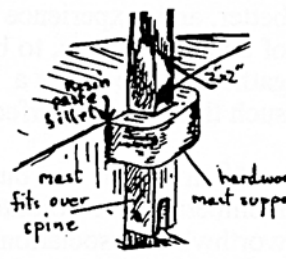
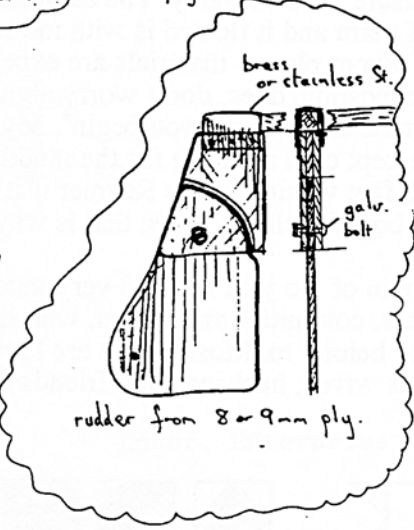
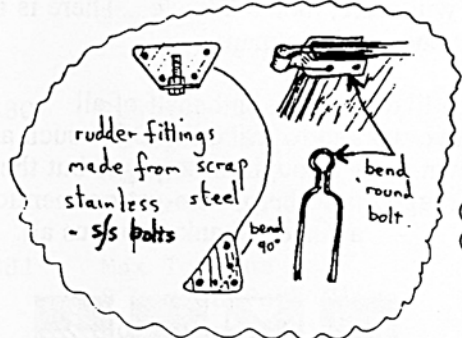
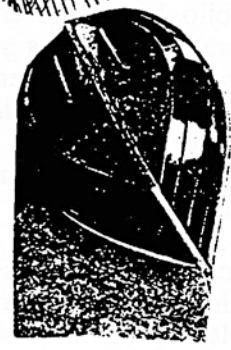
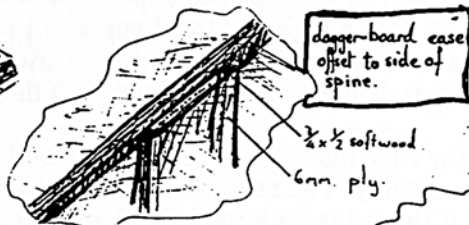
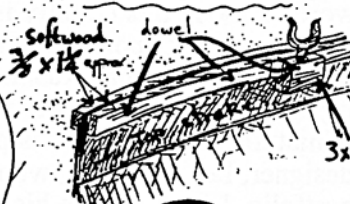
Much has been written on the subject of knees, and while I am sure great enjoyment can be gained from sorting out the right bit of bent wood for a hand carved knee, on this boat they are ply and are really gusset plates. Our local builders' yard is a bit limited on grown timbers, but all ply and pine for the mast came from builders yards, making sure of course that the ply was WBP grade.

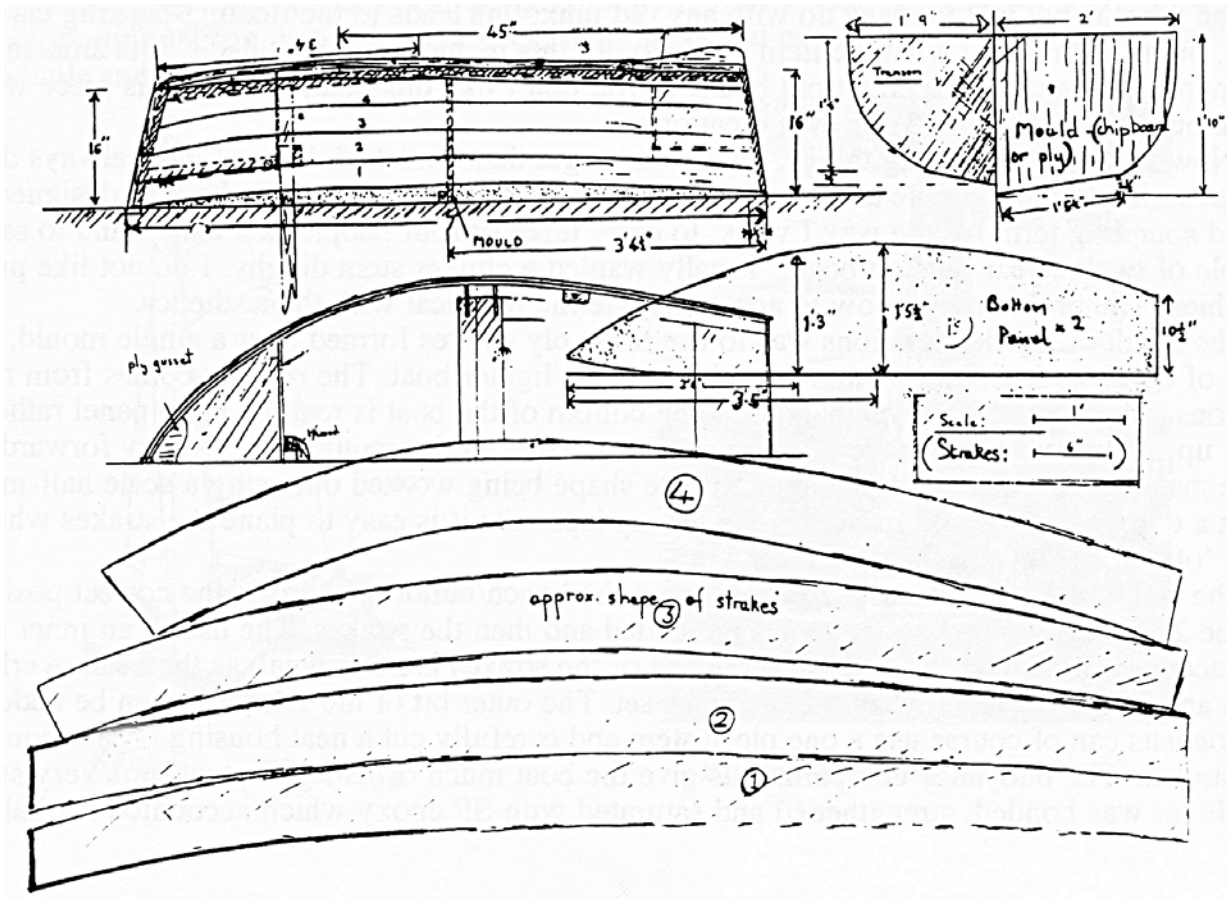
While building this way is sound, it is not an exact science – which really is in the tradition of working-boat building – therefore I leave working out the shapes of such things as the buoyancy boxes until the hull is formed. It is then possible to cut an accurate card template to the actual shape of the boat, rather than try to predict through a two-dimensional plan. Of course it is worth taking a pattern in hardboard of the final shape if you plan to make more than one. **TE**



DETAIL OF GUNWALE

Curved section does not touch spine apart from ends





(Above) The half-plan, elevation, panel and strake details for Tim's first microboat, seen below right and on page 26. Also shown below is the Apple Pie dinghy, drawings also on page 26, which Tim says goes a long way towards confirming his prejudice against pram dinghies on the grounds of ugliness! But it does go into his van, and it is lighter than his own lapstrake design.

