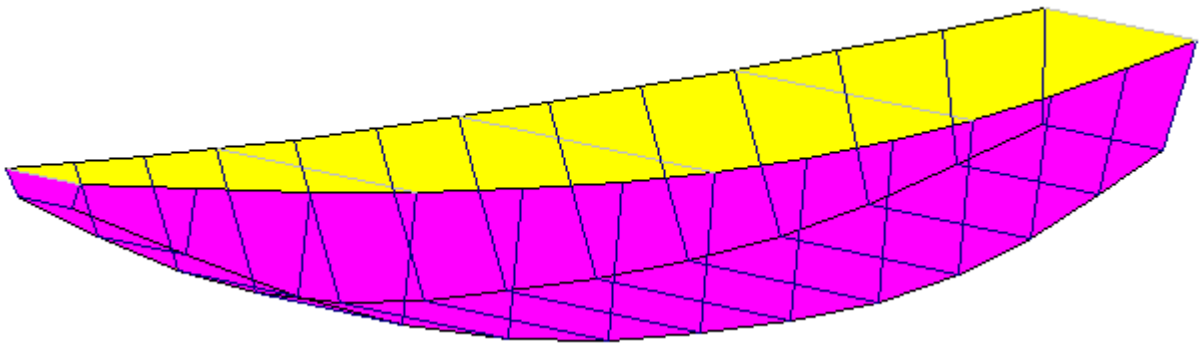
Micro Auray Punt

In 1912 Claud Worth took measurements from a punt he saw local fishermen using on the Atlantic coast in Auray, France. Philip Bolger later adapted these mesurements for plywood in his book "Boats with an Open Mind", creating a 9'9" x 4'2" plywood punt. "Small Boat Journal" published a 10' version of the "Auray punt" in number 25, July 1982.

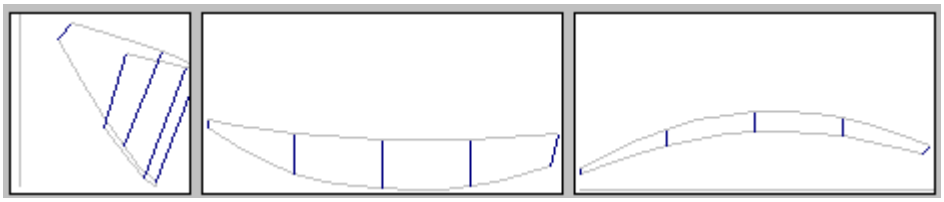
This is a one sheet version of the same punt, adjusted to be made of just one sheet of plywood. As it happens, the boat scales down very nicely. The overall shape is conserved beautifully. Both length and beam are 3/4 of the original, so the L/B ratio is the same, about 2.2. The shape looked from above is the same. The height is 4/5 of the original, so the "Micro" is proportionally slightly higher than the original "Auray". The total volume is 0.45 times that of the original, so if the original is a boat for 2 to 3 people, this is a one person boat.



The "Micro Auray" measures 7'2" x 3'3" and can be built using the split side technique established in the "Simbo" section. She displaces about 780 lbs just before flooding. At 250 lbs, one person load, her freeboard is about 7".

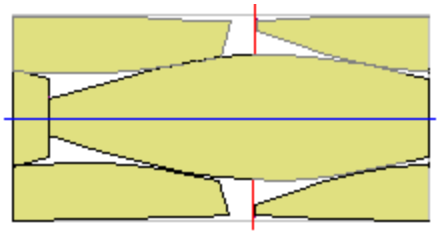
See also the "Mini Auray", a one and a half sheet Auray punt.

Here is the "Micro Auray" .hul file for those interested.

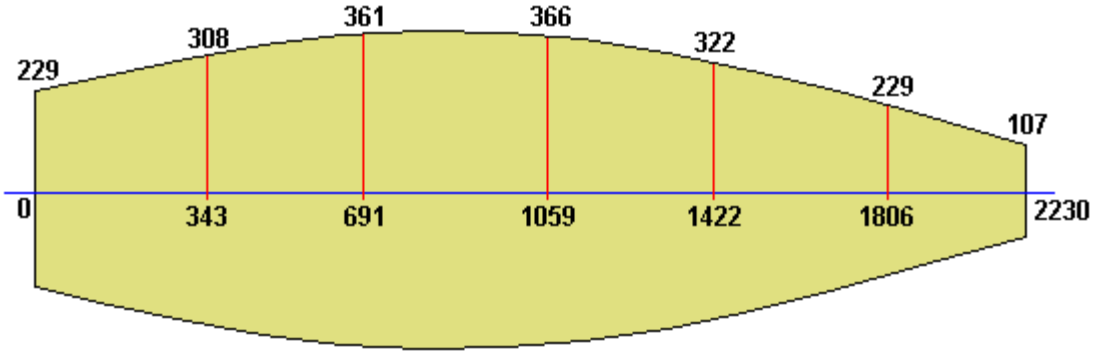


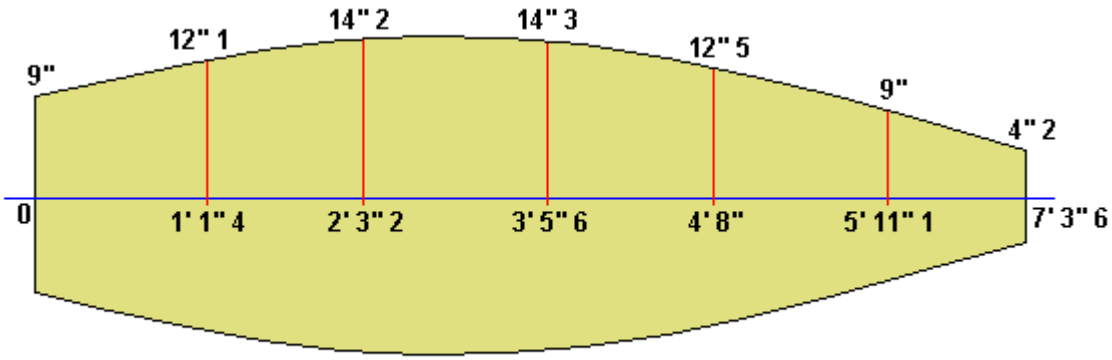
To construct the punt cut the plywood like this. The bow transom is not shown, it is best to cut it out of a piece of plank. So strictly speaking, this is not a real one sheeter ;-)

The red lines show where the side strips will be cut in two eventually.



First draw a line lengthwise in the middle of the plywood sheet. From this centerline, measure and mark the bottom on one end of the sheet according to these measurements. Loft the side curve on one side only. Just mark the measurements with small dots on the other side.





Then measure and mark the transom on the other end of the sheet. The transom and bottom meet, there'll be

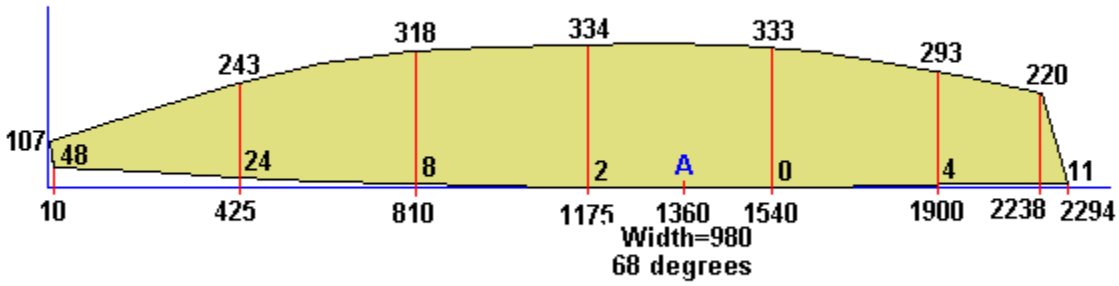
no left over plywood between them.

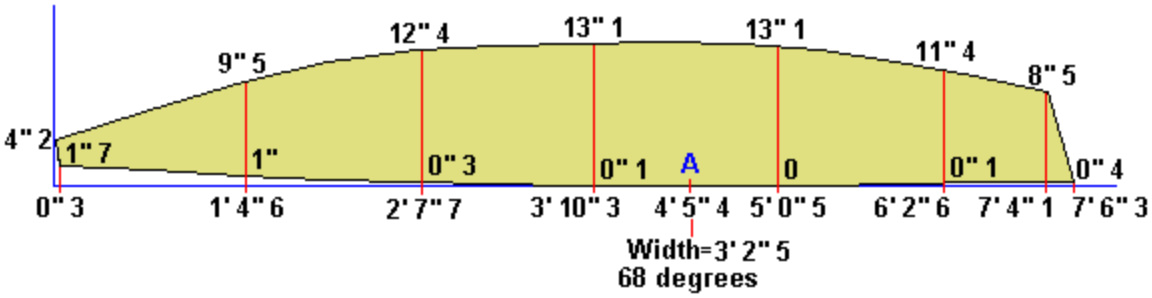
Saw along the lofted side of the bottom. Then flip the side strip You just created over, onto the other side of the sheet, and draw the other edge of the bottom along the sawn edge of the side. Check that the drawn curve matches the measured points.

Cut the other edge of the bottom and transom. You now have four pieces of plywood: the bottom, transom and two side strips of rather nonspecific shape.

Cut both side strips in two, 1400 mm (55") from the end where the transom came from. Swap the pieces, and connect the wider ends of the strips using butt joints.

When the glue has hardened, measure and loft the side onto one of the strips. Then saw out the sides from both strips in one go, strips on top of each other.





Mark the point "A" to both sides. The sculling seat rear edge (closer to stern) will be directly beneath point "A" in the finished boat. The distance between sides will be set to 980 mm between points "A", with a length of board, with ends cut to 68 degrees angle.

A plywood sheet cut into pieces according to the scheme shown above. I use 4 mm (5/32") birch plywood to make the boat as light as possible.

Using thin (=flimsy) plywood like this makes building slightly more difficult than using 6.5 mm (1/4") ply. The thicker ply would make the boat stronger, too.

Both thicknesses are possible, it's just the choice between strength and weight.

Sides butted with glass tape on either side of the ply and gunwale battens bent with the help of a heat blower gun.

Wood and epoxy work finished, but not sanded yet.

Up to here I used much the same techniques as with the "Simbo". Small wooden blocks and screws through the plywood for stitching the pieces together.

- On the first evening stitch the plywood pieces together with 2" x 2" x 2" wood blocks 1' apart and small screws, apply an epoxy putty bead between the blocks, glue the quarter knees, seat and transom stiffeners.
- On the second evening remove the stitch screws and blocks, complete the bead, apply glass tape on the inside and glue on the gunwales.
- On the third evening turn the boat over, round the chines, apply epoxy putty and glass tape on the outside of the chines.

Bow details.

The bow transom and quarter knees are of 70 x 12 mm (3" x 1/2") pine.
The cross member of 45 x 21 mm (1 3/8" x 7/8") pine is not a necessary item, it's a handle. It can be left out. In my opinion boats always have too few handles. The cross member provides an excellent handle to carry or drag the boat. In addition, it increases the torsional stiffness of the "snout".

Stern details.

Quarter knees in the stern are of of 145 x 18 mm (6" x 3/4") spruce. The 64 mm (2 1/2") holes act as handles, can be used as fastening points for ropes, and they look nice, imho.
The stern transom cross members (double) are of 21 x 21 mm (7/8" x 7/8") pine. These stiffeners are needed, since the thin plywood transom by itself could not take the bending forces from the gunwales.
The gunwales are of the same 21 x 21 mm (7/8" x 7/8") pine batten.

You may ask "why are some pieces of pine, some of spruce?" Spruce is much lighter than pine, but usually has lots of small knots. It is difficult to find thin battens of spruce without knots. When being bent, a thin batten usually breaks at a knot. Also, not all lumberyards store all sizes in all wood species. My local lumberyard mainly sells spruce and pine. There are other woods in the world, of course...

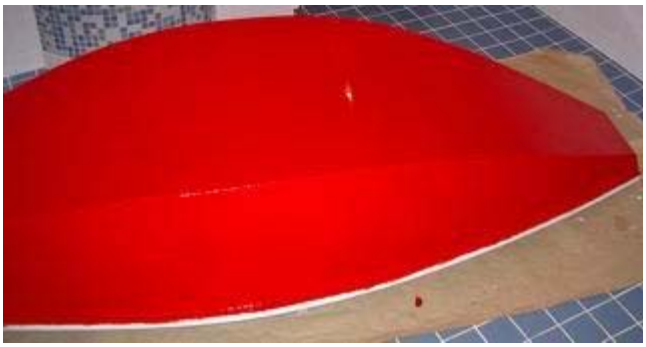
Seat details.

Seat side frames are of 45 x 21 mm (1 3/8" x 7/8") pine, hewn to a nice shape, glued to the sides.
Seat cross member under the seat, glued and screwn to the side frames, is of 70 x 12 mm (3" x 1/2") pine.
The seat itself is of 145 x 18 mm (6" x 3/4") spruce, glued to the cross member and sides.
The 12 mm (1/2") plywood "foot" under the seat does not support the seat but the flimsy bottom. If 6.5 mm (1/4") plywood was used, this foot would not be necessary.

The oarlocks will be situated 30 cm (10") astern from the seat rear edge.

The 150 mm (6") lengths of 21 x 21 mm (7/8" x 7/8") pine above the seat on the inside of the gunwale are handles (again :-). They are at the lengthwise center of gravity of the boat, so the boat can be carried like a suitcase.

The true weight of the boat is 12 kg (26 lbs) so carrying is a real option. But again, these handles can be left out if You think You'll never carry the boat. Don't fool Yourself ;-)



Bottom painted bright red. This is always the difficult part: what colour to paint Your boat?

Finally by the sea. Here You can see the difference between a one sheet boat and a one and a half sheet boat. Quite a lot!

The blue boat is my sharp bow dinghy.

But no pictures of the maiden voyage (which I did, by the way) yet. The weather was so miserable (cold and rainy), that I couldn't get anyone with me to take pictures.

Anyway, the first impression on the sea was, that she's a really touching little boat. Ligth to scull, tracks well without a skeg and feels stable for her size.

Another day, the sun is shining.

You might just be able to see, that the lower edge of the transom is just clear of water, so the balance is just like intended, the seat position is correct.

So long, I'm on my way!

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