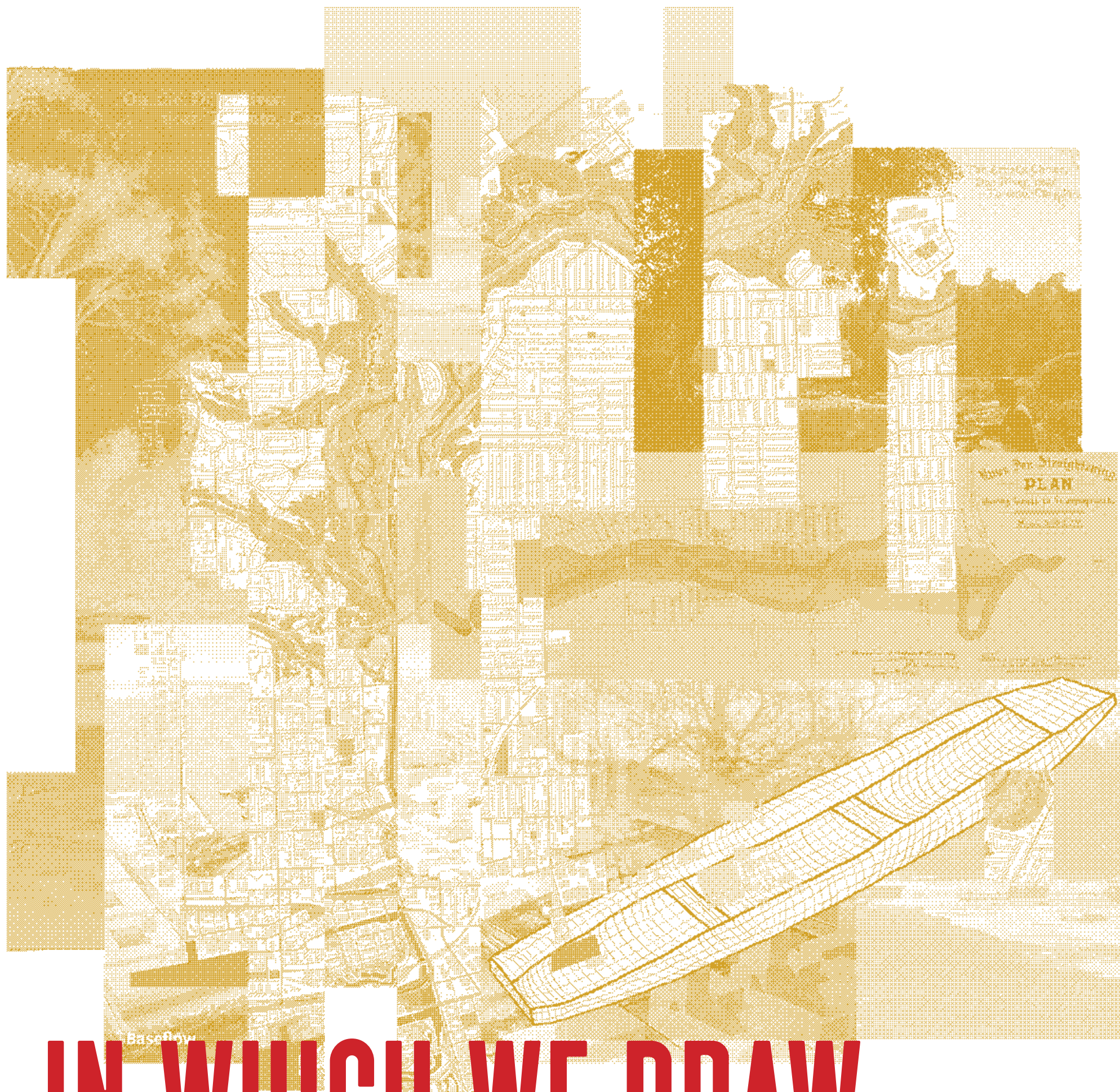


Join us—on water and on land—as we start a conversation around the past, present, and future of the waterway known locally as the Don River. Organized by artist collective Mare Liberum for Evergreen Brick Works and Waterfront Toronto, for Toronto’s Year of Public Art.

For more Information on the project visit donriverradio.ca



IN WHICH WE DRAW A PEOPLE'S MAP OF THE DON RIVER

HOW TO BUILD A PUNT

1) Download a punt template from donriverradio.ca/boats for all the parts you'll need to make.

2) Start by cutting out all the pieces you'll need. You can send the file to a CnC cutter, or cut them by hand. For the full-scale 16' punt, You'll need approximately (4) sheets of plywood - no thicker than ½" though you could probably make due with ¼" if you're prepared to reinforce and repair as it ages. You'll also need (2) 8' 2x4s, and (4) 8' or 10' (preferable) 1x2s. It's better to find scrap wood for all these parts if you can.

3) If you're sending your files to a CnC cutter, you can skip this part. If you're cutting the parts out by hand, take a look at the flat parts and draw them out onto the sheets of plywood. The bottom boards and decking may appear straight, but in fact they have gentle curves that need to be drawn and cut out. Lay out the measurements on the drawings, including the construction lines. Connect three points of a curve by bending a slightly flexible 'batten' through all points and tracing its edge. This will give you a nice smooth curve to cut with a jigsaw.

4) The build. You might be asking yourself: "What are all these parts, and what are they for?" Let's take a moment to learn the different parts while starting to put the boat together:

Where the bottom of the boat and the bow and stern raise upwards there is a 2x4 called the BOTTOM PLANK CLEAT that connects all the parts together and creates a seal against water getting in. Cut its bevel on either a table saw or band-saw where the blade or table can tilt. Alternatively you can create that bevel with a hand-plane.

The KEEL pieces and the SKEG might be good but are untested and optional. Punts without these components seem to work great. If you find your punt not paddling as straight as you would like, these components would help.

The SIDE PLANKS need to be joined to form each side of the boat using what are called BUTT BLOCKS. Each side plank's longest side will be meet the other. Overlap that joint with the BUTT BLOCKS using wood-glue and either short screws or nails. Make sure that the SIDE PLANK assemblies are mirror images of each other in respect to which side of the plank the BUTT BLOCK is on, so that the BLOCK lands on the inside of the punt on both sides.

Glue and nail the CHINES, made of 1x2s, flush along the bottom of the new long SIDE PLANKS.

Glue and screw the SIDE PLANK assemblies along the sides of the MIDDLE PLANKING (bottom of the boat). Mark a horizontal centerline on the MIDDLE PLANKING and make sure the joint of the SIDE PLANKS lines up with that centerline. The screws should go through the MIDDLE PLANKING first and into the CHINES that are already glued to the SIDE PLANKS. Start at the centerline and work your way out towards the ends. Be liberal with the glue and insure a continuous glue bead here-as this is going to keep out the water.

Glue and screw in the BOTTOM PLANK CLEAT to the MIDDLE-PLANKING at either end. Make sure the beveled edge is aligned with the curvature of the boat's sides. Try it out both ways and see which way works best. Pull the ends of the SIDE PLANKS in towards each other and use the BOW and STERN BEAMS to hold them in place.

Glue and Screw down the BOW and STERN PLANKING in the same manner as the MIDDLE PLANKING by screwing through the planking into the chines of the SIDE PLANKS. You will need to bend the SIDE PLANKING more by hand to line up nicely with the BOW and STERN PLANKING

Screw in the DECK BEAM CLEATS into the DECK BEAMS, and glue and screw in the DECK BRACE to the side planking only. If you decide to screw the DECK BRACE into the bottom of the boat, make sure to use lots of glue so that those screw holes don't leak.

Through experimentation we have decided that the decks could use some 2x4s to make them stronger for standing on. Add them longitudinally from the DECK BEAM CLEATS to the DECK BRACE and screw them in.

build time: 5-10 hours

skill level: beginner to intermediate

materials needed: drill, hammer, jig saw, wood glue, stainless steel screws

Screw down the DECKS without applying glue. These surfaces may wear faster than the others so it would be nice to be able to replace them. You may want to add floatation under here now or at some other time.

5) Through even more experimentation we've decided that this boat needs a thwart between the the BUTT BLOCKS in the center of the boat. This provides some extra structure for the SIDE PLANKS as well as a nice place to sit and possibly row.

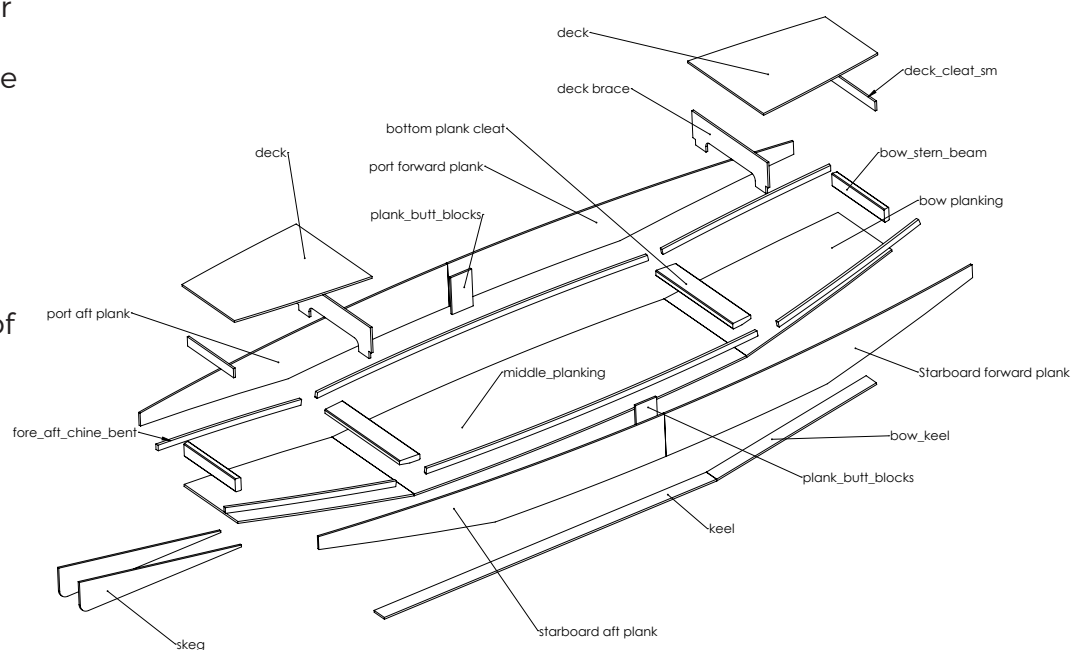
6) It might be a good idea to also reinforce the bottom of the punt with 4 or 5 horizontal strips of wood the size of the CHINES. With lots of people in the boat, the bottom tends to bend, and this will help keep it flat.

7) Paint the boat to keep it waterproof, varnish or epoxy fiberglass it. If you're unsure if you made tight enough seams, get some fiberglass and epoxy and run a thin line of the stuff along any joint that is below the waterline. This will keep water out and keep your boat from sinking, hopefully.

8) You now have something resembling a boat. Your next task is to learn how to "punt..." or get some oars/paddles.

9) Before going out on any waterway, make sure you know where it leads and have a sense for what kinds of obstacles you might encounter. For instance, the Don River can be too shallow to navigate in points at certain times of the year. You may need to portage over or around dams. Rapids, hydraulics (also known as holes, reversals, rollers, suck holes and pour-overs), and other obstacles are often indicated on water trail maps. If you don't know the waterway well, go slow and always make sure you have a personal flotation device (PFD/"life-vest") for each passenger, a radio (if in open water or water used by boats with motors), and maybe a flashlight or whistle in case you need to signal.

10) Take time to enjoy the water.



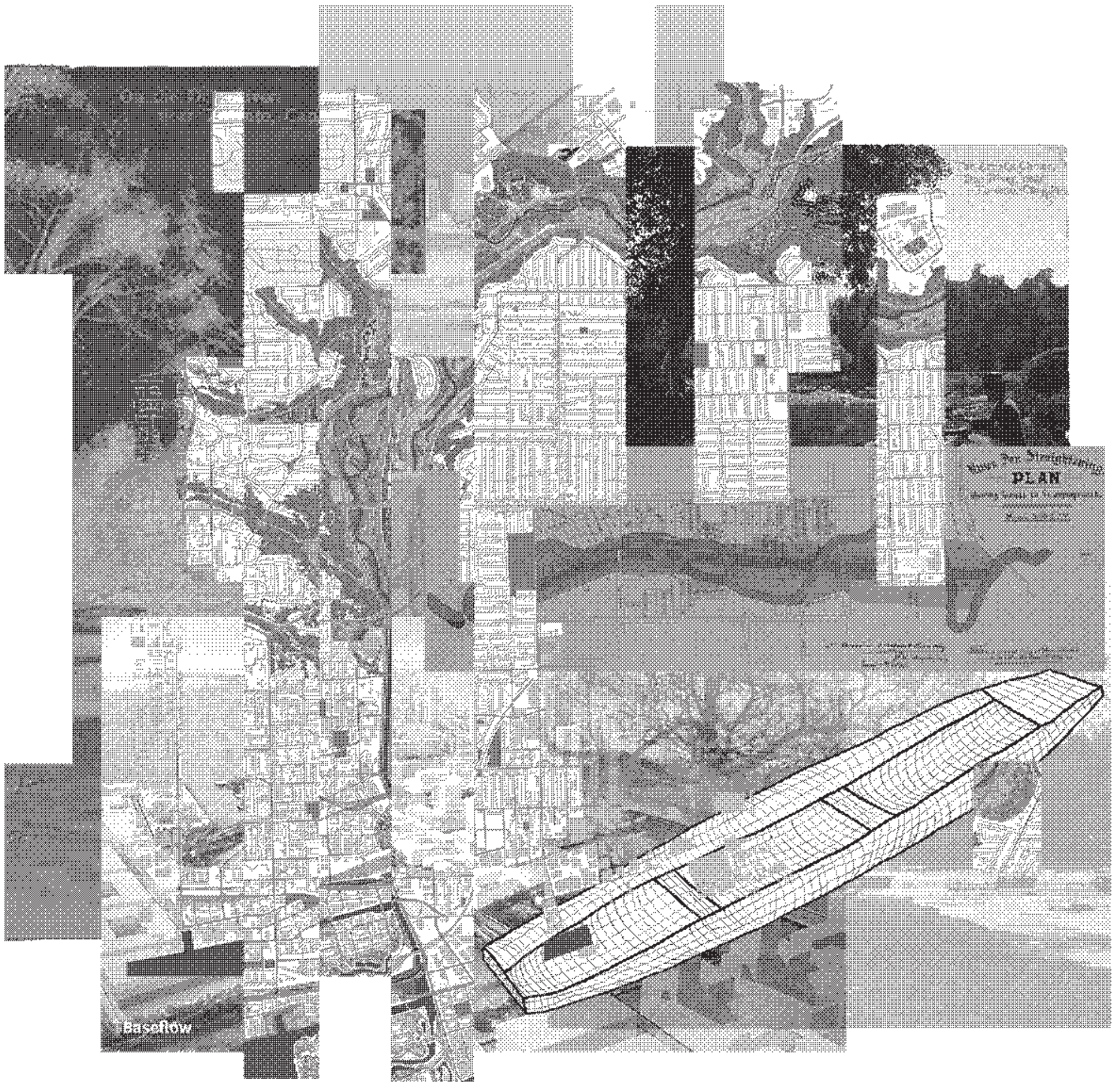
ABOUT PUNTS...

A punt is a flat-bottomed boat with a square bow, intended for use in small rivers or other shallow and mostly calm waters. Originally designed as work boats, or for hauling cargo from shallow place to shallow place (say, up and down a canal), the punt has remained one of the best vehicles for getting out on the water and tooling around, i.e. pleasure trips up and down English canals. For that matter, it's not so bad for exploring further-off places on mostly flat water either, equally suited to it as a raft would be and without the need for added flotation. You see: the punt is a boat, and as such, it arrives at flotation through a displacement that is integral to its shape. See Archimedes' principle for more on that. It's a simple boat, but it does what a boat does, which is to say, it allows you to get out and explore the waters around you, and to do so without making much noise or using much petroleum.

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Baseflow

Ways to Straighten the
PLAN
Showing how to straighten
the plan of a river