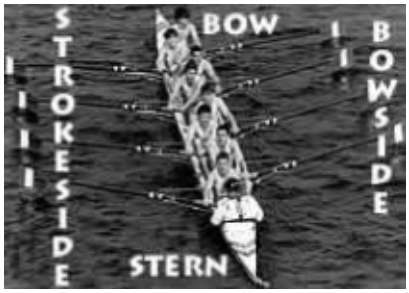
Basics of Rowing

The boats (or shells) are basically of two types and reflect the two forms of rowing: **sweep** rowing and **sculling**. In sweep rowing each rower handles a single oar (about 12.5 ft or 3.9 m long) and in sculling a rower uses two oars, or sculls, (each about 9.5 ft or 3 m long).

The word shell is often used in reference to the boats used because the hull is only about 1/8" to 1/4" thick to make it as light as possible. These shells are also rather long and as narrow as possible.

Each rower has his back to the direction the boat is moving and power is generated using a blended sequence of the rower's legs, back and arms. The rower sits on a sliding seat with wheels on a track called the slide.

Boat Terminology



Boat: The boat itself. Also, sometimes referred to as the shell.

Bow Side: The right side of the boat - when sitting in the cox's seat, looking forward; sometimes referred to as starboard. Oars for this side of the boat often have a green marking.

Stroke Side The left side of the boat - when sitting in the cox's seat, looking forward; sometimes referred to as port. Oars for this side of the boat often have a red marking.

Stern: The back end of the shell, where the cox usually sits; also the end of the boat with the rudder and/or fin.

Bow: The front end of the shell, covered by a bow ball.

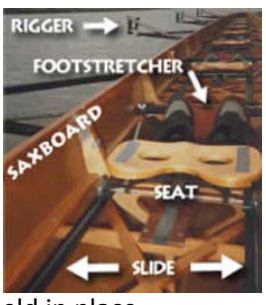
Bowball: Small rubber ball that covers the end of the bow; intended to prevent/reduce damage upon collision.

Fin The fin under the stern of the boat which helps to keep the boat on course.

Rudder A small, movable part, usually metal, that sits under the stern of the boat; allows the coxswain to steer the boat.

The boats are steered either by the coxswain, or by the bow seat (in boats without a coxswain - called "coxless" boats). Cox's use a rudder to steer the boat, which they control using cables that are connected to it. To help keep the boat on course, all boats have a small fin in the stern.
There are two types of boat - rowing and sculling. There are also boats which can be used for either rowing or sculling, depending on how they're rigged (i.e. the boat comes with two sets of riggers - see the next section for information about riggers). Rowers (sometimes called sweep) have one oar each, while scullers have two oars each.

Inside the Boat



Originally made of wood (some still are) rowing shells are now usually made with layers of carbon fibre, fibreglass and plastic. These boats are extremely lightweight and narrow, allowing the rowers to slice through the water. Each bow is covered by a bow ball - a small round piece of rubber that not only helps to judge photo finishes, but also helps to protect people from serious injury if the boat collides with another shell.

Each rower sits on a sliding seat that rolls on wheels along a fixed track called the **slide**. Feet are tied into shoes which are bolted onto **footplates** in the boat. Each oar is held in place by **riggers**, which extend from the **saxboard**. The rigger holds the gate in which the oar sits. The gate

is carefully set up so that the oar is held in the water with a specific amount of **pitch** or tilt. This is usually about 5 degrees at the midpoint of the stroke although it does not change through the stroke.

Footplate or Stretcher - fixture in boat that contains shoes screwed into a piece of wood. This contraption holds the rower's feet into the boat and is the only part of the boat where the rower is firmly attached. The shoes have quick release Velcro straps, but should not be over tightened as you may need to release your feet in the event of a capsize.

The position of the feet is adjustable to accommodate different height rowers. This is achieved by loosening the three wing nuts securing the stretcher to the tracks and then lifting and sliding the footplate to the required position. If you are rowing in the same boat regularly, it is a good idea to remember the position of the shoes so that you can adjust the boat before you get in.

Saxboard: this is the top side of the boat - the edges onto which the riggers are bolted.

Gate: The small plastic part at the end of the rigger that opens at the top. The rower opens the gate, places the oar into it, then shuts the top metal bar, screwing it tightly shut. The gate holds the oar in place during the rowing stroke.

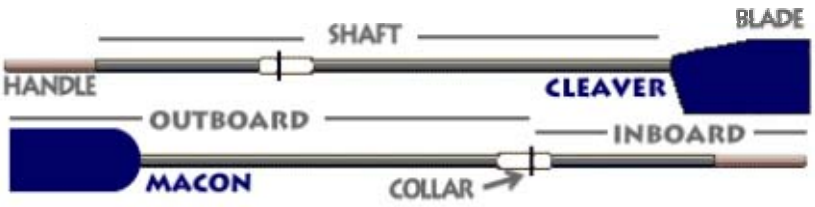
Rigger: The metal support attached to the saxboard that holds the gate.

Slide: The tracks underneath each seat which the wheels of the seat slide on, allowing the rower to move back and forth in the boat, utilising their full leg power.

Cox Box: A device used by the cox, consisting of a microphone and speakers that amplifies the cox's voice throughout the boat.

Oars

Oars are referred to as **blades** for rowing and **sculls** for sculling. They are made of carbon fibre although you may start with wooden blades; wooden blades are heavier but can make the boat easier to balance for beginners.



Cleavers: The most commonly used type of oar, made out of fibreglass and carbon fibre. The shafts of the oars are hollow, making them as light as possible.

Macon: Originally created in the 1960's, was the blade of choice until cleavers came into existence. Macon blades are used for novices as they put less strain on your back if you have bad technique.

Blade or Spoon: The end of the oar that is places in the water and used to propel the boat forward; also the oar itself is often referred to as a blade.

Shaft: The long, (now commonly hollow) length of the oar.

Collar or Button: A small plastic piece that is placed against the gate to keep the oar from slipping out.

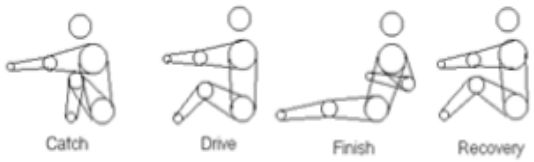
The Rowers

Each person in the boat has a position, starting in the bow. The person closest to the bow is called bow seat. Every other seat is called by the number of the seat, except the lead rower, who is the stroke.

For example a crew in a four would be referred to as bow, 2, 3, stroke. In an eight it would be bow, 2, 3, 4, 5, 6, 7, stroke (BGSBC have no eights as the River Aire is not wide enough to allow for easy turning of such a long boat).

Coxswain (cox) - the person steering the boat who also motivates the rowers, helps them keep their pace and helps to correct technique and unify the crew.

The Rowing Stroke



Catch: The point where the legs are compressed in a 90 degree angle, the arms are stretched out, the body is angled forward and the blade is enters the water.

Drive: The part of the stroke where the legs are pressing down, then the back and arms swing backward, sending the body to the bow.

Finish: The point where the rower pushes down on the handle of the oar to pop the blade out of the water and begins to push the arms out of the bow.

Recovery The time spent winding the body back up to the catch, it is like compressing a spring; first the arms extend, then the body angle is achieved, finally the legs are pulled up to the catch.

Square blades: Keeping the blade perpendicular to the water on the recovery.

Feathered blades: Keeping the blade parallel to the water on the recovery.

Crab: An unfortunate incident when the blade gets caught in the water and the handle of the oar hits the midsection of the rower; can result in getting tossed out of the boat. It is caused by the blade not entering into the water fully square, when pressure is applied to the blade it will just go deeper and deeper in the water.

Basic Coxing Commands

Most coxing commands are done "in three" or "next stroke". For example, if you want the crew to lift the boat up, you would say, "lifting the boat to shoulder , in one; two; three!" On the word three, the rowers would respond and lift the boat up. Or if you want the crew to stop you would say, "next stroke, easy there!" this gives the crew time to respond and stop together. During pieces, (a term that means whatever distance the rowers are doing, ex. 500 meter piece) a cox will often count tens; for example, "let's take a ten for quick catches". The cox will then count the next ten strokes for the rowers.

Hands on: Put hands on the saxboard and get ready to lift the boat.

To Waist: Lift the boat to waist level, holding the saxboard with both hands.

To shoulders: Lift the boat up to shoulder height and rest the saxboard on the shoulder.

Above heads: Lift the boat over the heads, one hand on each saxboard.

Full Crew, Rowing from backstops, Are you Ready, Row!: This is a classic command, the cox specifies who the command is to, what they are to do, gives them time to prepare and when the cox can tell the crew is ready they say Row.

Easy Oar: Stop rowing, while maintaining the arms away position and leaving the blade feathered above the water, letting the boat glide over the water.

Rest: After telling the crew to easy there the cox will give the command to rest, the crew can then drop their blades on the water, this is a bit like the "at ease" command in the army.

Hold it up: Put the blades into the water at an angle, causing the boat to decelerate quickly.

Firm/Full Pressure: Pull on the oar with 100% of your power.

Three Quarter Pressure: Rowing with 75% of your power.

Half/Medium Pressure: Rowing with 50% of your power**:**

Light Pressure: Stop rowing with pressure and just lightly pull the blades through the water.

Back it down: Push the oar backwards through the water to move the boat toward the stern - predominantly used to turn the boat around (back it down on one side).

Other Rowing Terms

Stroke: The rower sitting nearest the stern (and the coxswain, if there is one). The stroke is responsible for setting the stroke length and cadence (with the coxswain's gentle advice).

Ratio or Rhythm: The ratio of the recovery time to the drive time. The recovery time should always be longer than the drive time (how much longer I won't say ... as someone wrote, the idea is to `move the boat on the pull through (or drive) and take a ride (i.e. relax) on the recovery without sacrificing the very speed that they have generated'). Some say the recovery should be twice as long as the drive.

Rating: The number of strokes per minute. Also known as stroke rating.

Stern Check: Bad technique that slows the boat down. Essentially, the momentum of the rowers sends the boat in the opposite direction. Any abrupt deceleration of the shell caused by some uncontrolled motion within the shell; an interruption in the forward motion of the shell. The coxswain is probably the most acutely aware of this abrupt deceleration and it has been known to cause whiplash in some extreme cases.

Airstroke: The rower starts the drive before the catch has been completed (or even started in some cases). This is also referred to as rowing into the catch.

Rushing the Slide: Bad technique that causes stern check. Comes from coming towards the catch from the recovery too fast.

Skying : The fault of carrying the hands too low during the recovery especially when a rower dips his or her hands just prior to the catch (i.e. a sort of winding up). This usually results in the blade being too high off the water's surface.

Puddles: A measure of your power (and of run). If your blade leaves behind little dinky ripples, then you're not pulling hard enough. If you leave tidal waves after you pull your blade out of the water, then you're pulling just right.

Pyramid Rowing: Strength/endurance building drill where the coxswain calls an increasing series of power strokes, then a decreasing series of power strokes. e.g. Power 10 10 normal strokes Power 20 10 normal strokes Power 10.

Ergometer (Ergo): An ergometer is a rowing machine that closely simulates rowing in a boat - a coxless quad, to be more precise. Feel the Pain!