

the good **COXSWAIN**

THE COX & THE BOAT



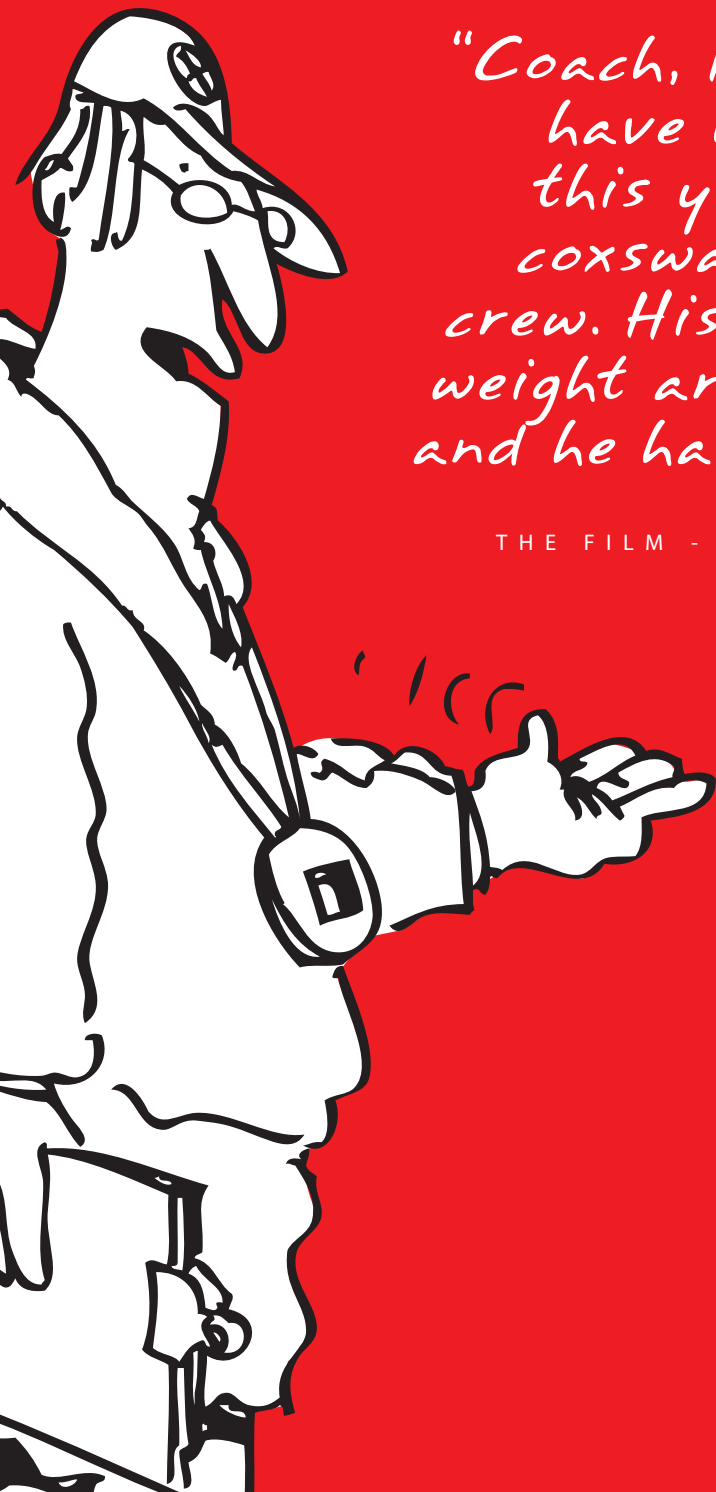


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THE COX AND THE BOAT

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"Coach, I'd like to have you make this young man coxswain of the crew. His size and weight are perfect and he has brains"

THE FILM - COLLEGE, 1927

the good COXSWAIN

1

FOREWORD FROM THE AUTHOR

Size does matter. When selecting a rowing crew, size and weight are physical qualifiers for choosing a coxswain – this manual cannot address your physical predisposition for coxing – either you qualify as a member of the select few or you do not! Happily, what this manual can do is address size and weight in equally important areas: the size of the coxswain's knowledge base and the weight of the coxswain's words. Without a sizable knowledge base and words that carry the weight of authority a coxswain is not a crew member, he or she is a passenger!

Wielding a seriously big rudder with an equally big voice makes wash and noise; it does not make a coxswain. As the fifth member of a Four or the ninth member of an Eight, the coxswain is there to contribute a lot more than his or her minimal bodyweight. It probably should go without saying, but a fast boat is fast because all crew members contribute equally and that does include the coxswain.

Unfortunately, the obvious often does need saying. Far too often have coxswain's been the objects of neglect, from crew members and coaches i.e. the relative importance of a coxswain to the crew and coach has been proportionate to their size? Needless to say, we are talking of unsuccessful crews or crews that will never realise their full potential.

Let's change all that. Coxswain's themselves should realise the full potential of their own role. This series of booklets, will clearly define the army of modern 'coxes' and perhaps serve as a battle-cry, or the hoisted standard with which coxswains can confidently trumpet their arrival in the battle for their sport's full recognition.

I trust that coxswains, coaches and rowers alike, will find these booklets a defining document for the success of all their current and future crews. Let the good coxswain's voice be heard.

Andrew O'Brien

HOW TO USE THIS RESOURCE?

WHY A SERIES OF BOOKLETS?

The answer in three words is portability, accessibility and durability.

The modern coxswain requires a resource that can be easily referenced – not a thick inaccessible tome that gathers dust on a dark corner of the bookshelf. The booklets are divided by title to reflect the development of the coxswain's skill base. From the embryonic stages of coxing in *Booklet 1* to the fully formed and functioning coxswain in *Booklet 8* and beyond.

The coxswain, and his coach, has been provided with bite-size pieces of take-away information that can be easily read, easily referenced and easily carried. This does not suggest content that is oversimplified or superficial – in fact this resource is the most detailed and comprehensive resource available to today's coxswain.

The reader should not worry about skipping to the end or just picking out one aspect that is relevant to their need at the time. For many it will be the first time they have seen in writing or have had fully

explained those aspects of coxing that have, until now, been taken for granted, "I knew **how** to do it, but I just didn't know **why**?"

The Good Coxswain is a valuable rowing resource but ultimately, to the coxswain, it is only a secondary resource. It can only be

as effective as the support it receives from the primary rowing resource – the coach.

Coaches must be familiar with the content of this publication for two very good reasons. Firstly, it will give each coach voice and direction to

that sometimes arbitrary, often neglected art of 'coaching the cox'. Thus, it will help articulate and guide instruction, allowing the coach to achieve not only clarity but impact.

Secondly, it will be a valuable meeting point between coach and cox. *The Good Coxswain* will provide a context for discussion. The coach will be in a position to explain and clarify issues raised in the resource.

I knew how
to do it, but
I just didn't
know why?

Therefore, the coach will be well placed to provide and recommend *The Good Coxswain* to each and every coxswain. The result: better coxswains and more effective coaching.

The reader will note that also included are selected testimonials from coxswains, rowers and coaches. Each has offered their first hand experiences to add further dimension to the instruction given. These testimonials are denoted by the spiral-bound, notepad graphic interspersed amongst the pages of each booklet.

Each of these illustrate that our most valuable resources are the experiences of others – they offer not only a practical component to the theoretical but also a human face to the good coxswain – be prepared to read these as poignant examples of the coxing experience.

(Any member of the rowing fraternity that feels that their experiences will benefit others is invited to submit their testimonials for future editions of The Good Coxswain).



At the conclusion of each booklet a glossary is included to better clarify the sometime indecipherable language of rowing. The terms and words included in the glossary are not exhaustive but specifically relevant to that particular booklet. Some cross referencing to the glossaries of earlier booklets may be necessary if the reader is wading in through later booklets - these assume a basic familiarity with many rowing terms.

In answer to the question, **"To which booklet should I refer?"** the reader will benefit not only from a cursory glance at the title and contents page but also the synopsis included in the final page of each booklet. *"The Good Coxswain"* page included in each booklet lists what the reader should know from their reading of a particular booklet.

Throughout this publication all coxswains will be referred to with the gendered pronoun "he". This is not to indicate a gender-based bias on the part of the author or among the wider rowing fraternity. It is purely used for ease of reference. In fact "coxing" can lay claim to being one of the very few sporting roles in competitive team sport that has no gender bias.

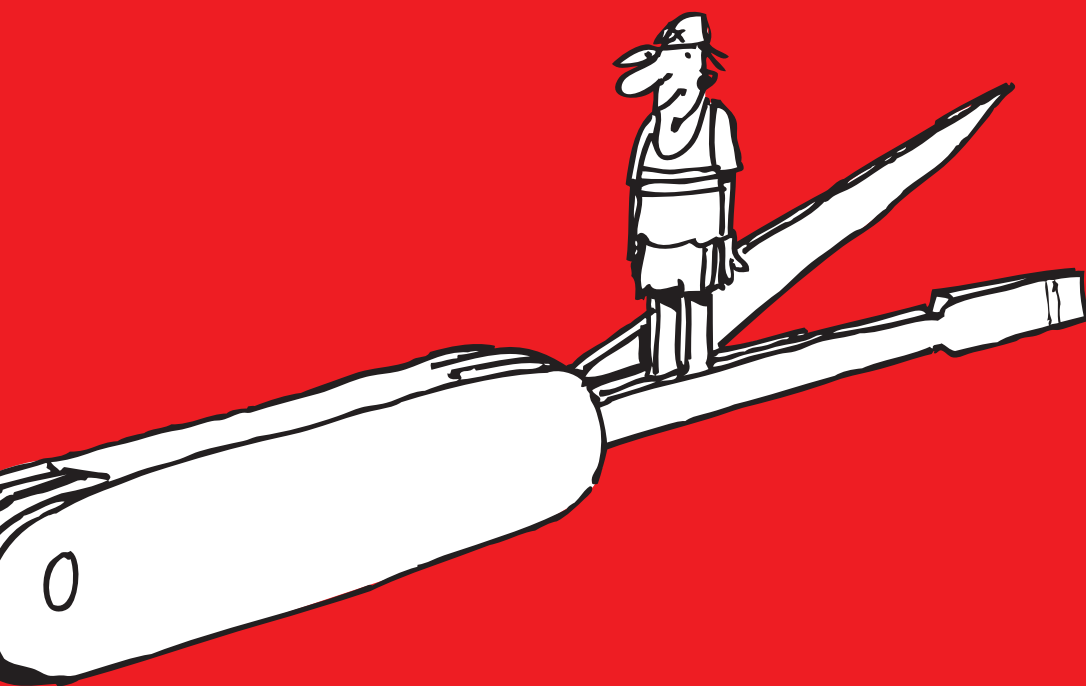
A good coxswain will always be a good coxswain, no matter the boat or the gender.

BOOKLETS AT A GLANCE

1	THE COX & THE BOAT
2	STEERING THE BOAT
3	USING THE VOICE
4	PREPARATION FOR THE WATER
5	LAUNCHING & LANDING THE BOAT
6	RESPONSIBILITIES ON THE WATER
7	COXSWAIN AS COACH
8	RACE DAY - PREPARATION
9	RACE DAY - STARTING AND RACING
10	SAFETY ON THE WATER
11	SELECTED COMMAND CHARTS
12	TECHNIQUE DRILLS



*"The coxswain is...
the rowing equivalent of a
Swiss Army Knife;
each functioning part
retracted into one
convenient pocket
sized utility"*



1.1 INTRODUCING THE COX

Rowing, tug-of-war and backstroke share one unique feature among competitive sports – all are competed while moving in a backwards direction. Rowing, unlike the other two, is done while the competitor is looking in the opposite direction to which they are travelling. The number of backward moving crew members in any one boat not only increases the size and speed of the rowing boat but also the degree of difficulty. Eight rowers moving blindly down a river (backward!) must certainly be inherently more difficult, and dangerous, than one or two.

The role of coxswain (pronounced **coxen**) or cox as it is more commonly abbreviated, has evolved due to generations of rowers failing to naturally evolve with eyes in the back of their head. The coxswain has been placed to see where the boat is travelling and is given strings to manipulate a **rudder** for steering purposes.

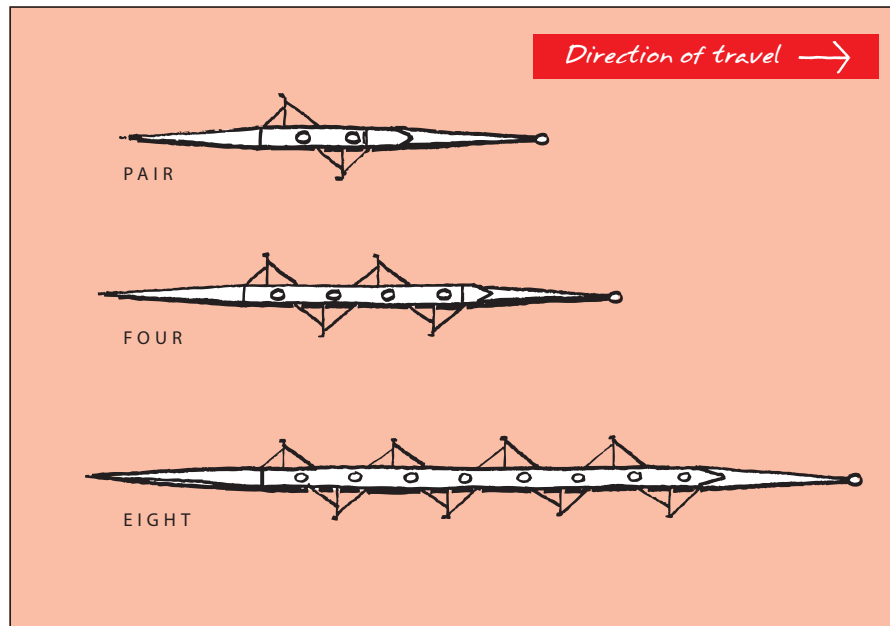
This was the cox's initial duty - to decrease the risk of collision and to navigate the winding and expansive waters that form the rower's natural environment. But unlike rowers, coxswains have evolved in time to be multi-faceted; serving as in-boat coaches, motivators and strategists – in effect, the brain on top of the rower's brawn.

Not all rowing boats (or **racing shells**, as they are often called) can sustain a coxswain. A cox is an extra weight in a boat and by necessity must be small in stature to negate the extra drag factor that comes with them being a non-rowing crew member. A one man boat (a **single scull**) would find it difficult to carry the weight of a coxswain and the boat's lesser speed and greater manoeuvrability make them capable of increased self-sufficiency (no need for a cox).

Eight-oared crews and many four-oared crews, on the other hand, can divide the weight of a coxswain equally among their numbers to have no obvious weight disadvantage. Also, the larger boats are far too large, far too fast and far too difficult to manoeuvre, to rely on the occasional turn of a rower's head to gauge direction and respond to any imminent danger.

You will find a coxswain in the following boat types:

- ➔ *Eight* - 8 rowers x 1 oar each
- ➔ *Four* - 4 rowers x 1 oar each
- ➔ *Quad* - 4 rowers x 2 oars each
- and occasionally
- ➔ *Pair* - 2 rowers x 1 oar each



Boats without coxswains (**coxless**) are steered by the varying pressure of the rower's oar in the water or a foot plate connected to a rudder manipulated by a crew member.

DEFINING THE COXSWAIN

Great coxswains, are not born, they are developed. But certainly there are some characteristics that an individual can display that predispose them toward success in the role of coxswain. These characteristics are certainly not confined to coxing but are relevant to all fields of endeavour where success is an expected outcome. The individual that wants to 'try coxing on for size', to see whether it 'fits' them, must at least have some of the hallmarks for success – i.e. **motivation, persistence and an ability to work as a team member.**

These and other choice characteristics are the foundations upon which a coxswain and his crew may build future success. These character traits may not exist as a complete package in one person, they may even be traits that are not yet developed, but if you are **well motivated** and **persistent** you may yet see those characteristics fully developed.

Refer to “Your Coxing Potential” on the next page. Here is a chance to see if you have the basic ingredients from which a coxswain may grow. You may possess some, none or all of these desirable characteristics. **See these as your personal goals – a focus, a direction to make improvements if you choose to cox.** If you possess many of the characteristics of the second column you have some distance to still travel – it is necessary to think long term and have faith in your coaches to develop your latent potential. The third column... perhaps you should think again – but seeing that you are reading this, ask others for help in moving you forward, you have taken the first step by looking at the following table.



YOUR COXING POTENTIAL

1.1 INTRODUCING THE COXSWAIN cont'd...



DESIRABLE



POTENTIAL



UNDESIRABLE

Size

Male (weight)	<input type="radio"/> Under 55kg	<input type="radio"/> 55-58kg	<input type="radio"/> 60kg or more
Female (weight)	<input type="radio"/> Under 50kg	<input type="radio"/> 50-55kg	<input type="radio"/> 55kg or more
Height	<input type="radio"/> Short	<input type="radio"/> Medium	<input type="radio"/> Tall

Experience

Sporting Involvement	<input type="radio"/> Much	<input type="radio"/> Some	<input type="radio"/> None
Learning New Skills	<input type="radio"/> As I am taught	<input type="radio"/> With more practice	<input type="radio"/> With much help
Working under pressure	<input type="radio"/> Calm	<input type="radio"/> Coping	<input type="radio"/> Distressed

Application

Attitude to Challenge	<input type="radio"/> Persistent	<input type="radio"/> Inconsistent	<input type="radio"/> Negative
Approach to Competition	<input type="radio"/> Enthusiastic	<input type="radio"/> Interested	<input type="radio"/> Disinterested
Attitude to Work	<input type="radio"/> Positive	<input type="radio"/> Indifferent	<input type="radio"/> Negative

Relating

Team Membership	<input type="radio"/> Insider	<input type="radio"/> Neutral	<input type="radio"/> Outsider
Response to Feedback	<input type="radio"/> "Give me more"	<input type="radio"/> "Some is OK"	<input type="radio"/> "Leave me alone"
When-in-charge	<input type="radio"/> Firm & encouraging	<input type="radio"/> Loud & pushy	<input type="radio"/> Quiet & timid

Personal

Confidence	<input type="radio"/> Much	<input type="radio"/> Some	<input type="radio"/> None
Responsibility	<input type="radio"/> Readily Accept	<input type="radio"/> Reluctantly accept	<input type="radio"/> Reject
Punctuality	<input type="radio"/> Always	<input type="radio"/> Most	<input type="radio"/> Never
Organisation	<input type="radio"/> Very organised	<input type="radio"/> Organised	<input type="radio"/> Disorganised
Care of Equipment	<input type="radio"/> Very careful	<input type="radio"/> Careful	<input type="radio"/> Careless

THE COXSWAIN'S ROLE

Having considered whether you would make a good coxswain (*Your Coxing Potential*) you may now need to find out how those characteristic traits will be applied in a boat.

It may sound as if the coxswain is required to be the rowing equivalent of a Swiss Army Knife; each functioning part retracted into one convenient pocket sized utility.

This is true but it will be shaped by your own personality – you define it by your own unique perspective. To define the coxswain's role is not to straight-jacket the personality, nor is it to weigh you down with responsibility (nobody wants a heavy coxswain!) but a role definition is **a means by which you can direct your personality and your energy.**



The following combination of responsibilities in “*Coxswains are like...*” on the page opposite, from Mike Sisconolfi's article ‘*The Coxswain in the Spring Racing Season*’ may add a little dimension to the role you are considering.

The coxswain is the most important person in any shell!

A coxed shell cannot even be placed in the order of finish if the cox is missing. Coxes have the power to empower the crew to victory; they also have the power to lose the race for the crew through errors in steering or judgment. Well-trained coxes must develop and earn the absolute trust of their rowers, winning crews always have winning coxswains!

Coxswains are like...



CRICKET CAPTAINS – they work strategy, set the attack; they don't ask for a vote; the boat is not a democracy.



JOCKEYS – for human race horses; they direct and focus the energy.



PSYCHOLOGISTS – must be able to psych-out and psych-up large people in pain.



SURVEYORS – judging distances, margins and boundaries to make a claim on races.



FATHER CONFESSORS – knowing everything about the people in a boat that affects them during a race; they can summon up the right motivation (heaven or hell) at the right time!



ROWING OFFICIALS – very knowledgeable about the Rules of Rowing (they know the difference between “reprimand” and “warning”) and the exact quirks of a particular rowing venue.



MECHANICS – they know how everything in the boat works and can fix it if necessary: they know a “front-arm” from a “span-stick”.



CLOCKS – they always have the right time and always know exactly where each of their rowers and their boat should be at all times.



COACHES – they represent the coach's will and mind in the heat of competition.

THE PERSONALITY OF A COXSWAIN

Read the following quotes from those that have been there – their personality comes through and it may sharpen your definition of what kind of a coxswain you will be.

As you probably know by now, the coxswain is unlike any other creature in the kingdom of sports; one part coach, one part pilot, and one part firebrand. He holds the key to succeeding in a physically grinding race, yet he barely exerts a muscle. While every other athlete is judged by the quality of their actions, he is regarded only for the force of his words. Although his crew compadres are exhorted daily to work out and bulk up, he is only expected to waste away. Indeed, while most people's conception of the ideal athlete would run the lines of Michael Jordan or Michael Johnson, a perfect coxswain must incorporate the intellectual rigor of Gary Kasparov, the fiery temperament of Bill Parcells, the rhythmic sense of Ahmed Best, the verbal acuity of Demosthenes, the piloting instincts of Luke Skywalker, and the eating habits of Kate Moss.

Kevin Murphy "Ghost in the Machine", Coxswain

When I was coxing, my main focus was on knowing the people in my boat – I had to know why they were rowing, why they kept going, what was going on inside their head. Everyone is different – are they rowing because they need to have something that is theirs, or because they need to identify with 'the best' and they want to be proud. Work this out and you can tap into the strengths of each person in your boat. Coxing was special for me because I was able to inspire individuals in new and unexpected ways.

Rob Dunne, Coxswain

Who else is clever enough to gain the respect of eight very different personalities, steer a boat (costing the equivalent of a small car) through the eye of a needle, ask for more from a team that thought there was no more to give, read the opposition and be a willing fall-guy for anything that goes wrong. For me, as a rower, the cox is the superman in the boat; they have to be to carry all that responsibility. Don't be fooled by their size – anyone who has seen a good coxswain in action should have nothing but admiration for them.

Michael Tait, Rower

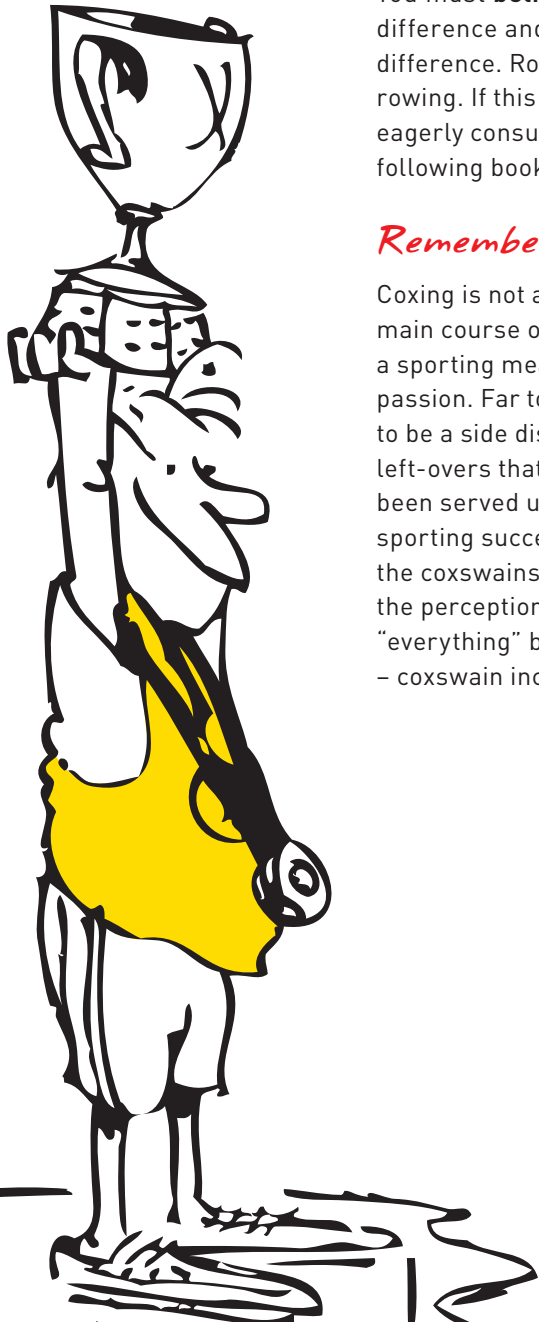
I think it's a connection of the rower and the coxswain in the race [that's] really special. You're telling them 'you can give more' and 'push harder' when they can't. You're really pushing your rowers to do something incredible.

Laura Dunn, Coxswain

It may sound absurd, but if you want to be a coxswain you must be involved in rowing. You must be **hungry** for rowing success. You must **believe** that you can make a difference and you must **want** to make a difference. Rowing is for you and you are for rowing. If this characterises you then you will eagerly consume all the information of the following booklets.

Remember

Coxing is not a small appetiser before the main course of rowing – you must make coxing a sporting meal – best served hot and with passion. Far too often coxswains are prepared to be a side dish or, even worse, the cold left-overs that remain after the rowers have been served up as the hot, hearty banquet of sporting success. It is the responsibility of the coxswains (and their coaches!) to change the perception. Winning is certainly not “everything” but it is certainly “everybody” – coxswain included.



Part of the joy of becoming a coxswain is that the application of your individual style with your regular crew can be a wonderful part of your experience. A lot like the conductor of an orchestra, you & the musicians know all the correct terms, but often it is how you apply those terms or break free from them altogether that can make a great performance.

Rowing and orchestral/ensemble music are entirely similar – both extremely repetitive, both rely totally on the team working as one for the best performance, both have a person who orchestrates the overall opus (coach/composer), both have a lead person in the group (stroke/concert master) both have a leader that has an enormous effort on the performance without actually physically creating it (coxswain & conductor).

Sandy Mitchell, Coxswain

*"Land was created to
provide a place for boats
to visit"*

BROOKS ATKINSON



1.2 INTRODUCING THE BOAT

If we are to progress to a practical application of all these coxing skills we will need a boat. Some may refer to it as a shell but its function and appearance remains the same by which ever name you call it. Of course, a coxswain without a boat/shell is a very sad thing indeed – a coxswain's life must have a purpose. So what are the kinds of boats that are available to the coxswain and what structural features do they share? How do they differ?

The novice coxswain will often begin with a type (or class) of boat that will allow for his lack of experience. When coxswains are prone to making many mistakes it is best to have a very forgiving boat. But don't take it to heart. This is also true of novice rowers. They will make their share of mistakes and will require a boat that can cater for not only their lack of experience but their faltering confidence.

BOAT TYPES

Big may refer to the length of a boat or the width (59cm -63cm), weight (14kg-96kg) and depth of a boat. The longest boat is an eight (19.9m). It is long because it must accommodate eight rowers and a cox! The widest and deepest boat is the 'tub' or what is called a **training boat** or **regulation boat**. As the word 'tub' suggests the boat could hold a great volume of water owing to its dimensions. Consequently, due to these dimensions the boat is heavier and will often be made of more durable materials.

It is one of the greatest ironies in rowing that the biggest and heaviest boats go to the smallest and least able rowers. The reason for this is because beginners and novice rowers need a boat that will be made of materials that will take the knocks and be of a size and weight that will keep the boat from rocking unnecessarily. It is ideal for teaching beginners and is easy to maintain and repair.

The more advanced a rower becomes in his rowing skills, the more likely it is that they will be transferred to a boat that is narrower, made of relatively less durable materials and is, subsequently, of a much lighter weight. The depth of the boat will be less as well, thus making the boat more susceptible to imbalance. Thankfully, the experienced rower has less need of a stable boat due to his advanced competence with the rowing technique – **the better the rower the faster and more stable the boat.**

The narrower, lighter boats are usually referred to as racing boats.

They are often made of materials such as Kevlar or Kevlar, fibreglass, carbon fibre combinations – very lightweight and increasingly able to take wear and tear. They are far more expensive to purchase and repair than the wooden or fibreglass training boats.

The novice coxswain may not, in the first instance cox these shells owing to the likelihood of damage, the expense of repair and the instability of the shell on the water. Nevertheless, the 'tub' is fast becoming extinct and in some rowing associations they have already been superseded by a less expensive version of the racing boat. The dimensions of these boats remain the same as a regular racing boat but are less expensive and a little more durable due to the inexpensive materials used in the construction. They may have greater fibreglass content rather than a full external carbon fibre skin.

It is also worth noting that eight oared boats are never manufactured with "training boat" dimensions, they have uniform consistency of shape and size across all levels of rowing. They will vary greatly, however, in materials and weight. In the not too distant future this will become the rule of thumb across all boat classes and the need to distinguish between training and racing boat based on depth and width will not be necessary.

In the meantime, however, many coxswains still must be aware of this distinction as it does have repercussions for steering.

The larger, heavier boats are less responsive to the rudder and require the coxswain to exert more effort in the turning manoeuvre. The rudder must therefore be applied earlier than if the cox was in the racing shell. Also, there is the major distinction between training and racing shell as to where the coxswain is seated in the boat. The eight will always have the coxswain in the stern of the boat but other classes of boat will vary according to training or racing shell. Training boats are coxed from the stern with the crew immediately in front of the coxswain. Racing boats are more often coxed from the bow with the coxswain in a reclined position and the crew seated behind him facing in the opposite direction.



BOAT CLASSES

When a “class” of boat is spoken of it is usually referring to the number of people rowing the boat and the number of oars being used by each of the rowers. The first distinction is between those rowers using two oars to row – **sculling** as opposed to one oar – **sweep oared**. Sculling requires the participant to have an oar in each hand, one on bow-side (starboard) and one on stroke-side (port). The possible number of participants for sculling in one boat ranges from one rower through to four rowers, each with two oars. Each of these boats is without coxswain; the exception can be the four member crew that can be with coxswain (**coxed**) or without coxswain (**coxless**).

There are five classes of sweep oared rowing boats from the eight with cox, the four with cox, the four without the cox, pair without cox and the pair with cox.

Refer to the table below to see the details for each boat class.

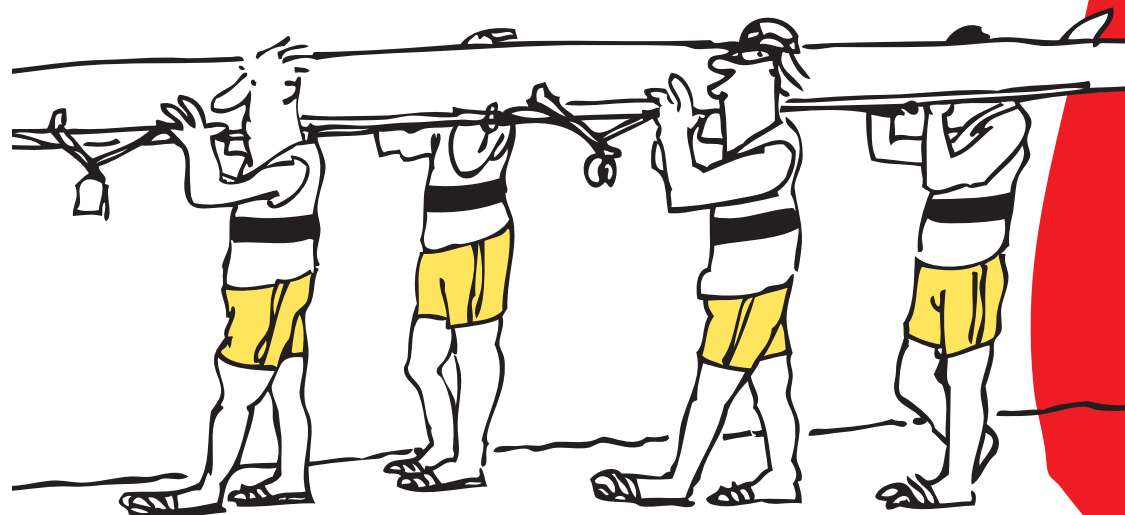
BOAT CODE	SCULLING BOATS	LENGTH	WEIGHT	COXED
1 x	Single Scull	8.2m	14kg	No
2 x	Double Scull	10.4m	27kg	No
4 x	Quadruple Scull (Quad)	13.4m	52kg	No
4 x +	Coxed Quadruple Scull (Quad)	13.7m	52kg	Yes

BOAT CODE	SWEEP-OARED BOATS	LENGTH	WEIGHT	COXED
2 -	Coxless Pairs	10.4m	27kg	No
2 +	Coxless Pairs	10.4m	32kg	No
4 -	Coxless Four (Straight 4)	13.4m	50kg	No
4 +	Coxed Four	13.7m	51kg	Yes
8 +	Eight	19.9m	96kg	Yes

There are two more variables for each of these boat classes and they relate to the gender and weight of the participants. The letters ‘M’ or ‘W’ before a boat class code denotes ‘Men’ or ‘Women’ (eg. M2- refers to Men’s Coxless Pair). The letters ‘LWT’ included in a boat class distinguishes the rower as ‘Lightweight’ (eg. WLWT4- refers to Women’s Lightweight Coxless Four). In the absence of the letters, the rowing class is assumed to be the open weight division referred to as ‘Heavyweight’ (HWT).

To qualify as **lightweight**, men cannot weigh more than **72.5kg** and the average weight of the whole crew cannot exceed 70kg (*single sculler maximum 72.5kg*). **Lightweight women cannot weigh more than 59kg** and the average of the whole crew cannot exceed 57kg (*single sculler 59kg*).

All rowing shells are usually built with consideration of the crew’s level of experience and the combined weight of the crew members. **One boat ‘size’ does not fit all.** A boat for lightweight females will not be suitable for heavyweight men. A boat built for schoolboys will not necessarily be suitable for schoolgirls.

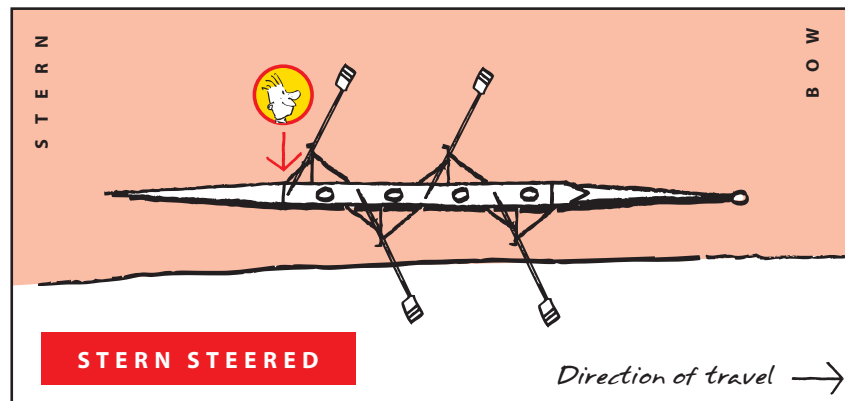
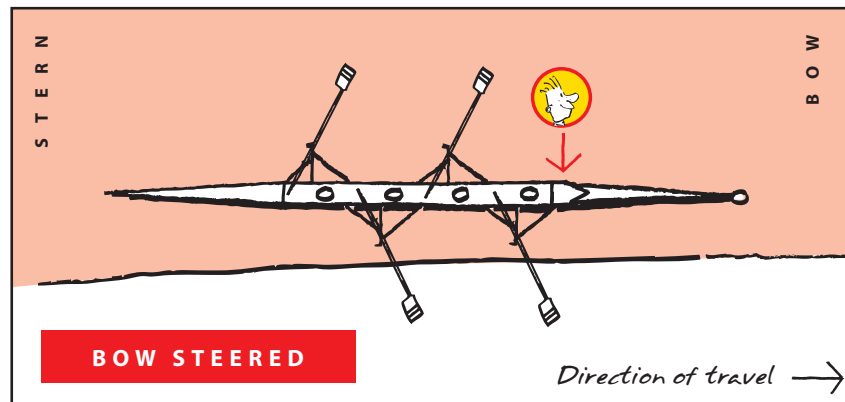


COXSWAIN SEATING

The coxswain impacts minimally upon the configuration of a boat. Nevertheless, boats can vary according to whether the coxswain is situated in the bow of the boat or in the stern of the boat.

The **bow steered boat** has the coxswain in a reclined position behind the rowers allowing the coxswain's body weight to be more evenly distributed along the length of the bow. This in turn contributes to the run and balance of the boat. A coxswain that is low in the bow of the boat also reduces wind resistance and has a view that is not impeded by the rowers. A boat that is steered from the bow must use a cox box or at least a speaker system that allows for ease of communication with the crew.

The **stern steered boat** may not need a cox box as the coxswain has the advantage of facing in the direction of his rowers. A cox box, although not a necessity, is an advantage. The other advantage is being able to see the rowers and their oars to offer coaching feedback.



In an eight, a very large and fast moving shell, all steering is done from the stern. The coxswain is thus in a position to better see the entire length of the boat to avoid any likely issues of safety. The same can also be said for training boats used by inexperienced crews where safety is also a greater issue. **The inexperienced coxswain with an inexperienced crew is better advised to use a stern steered boat** that allows a view of the boat, its rowers and the course being taken. Very few elite end rowers, not in an eight, will have a stern steered boat, as most stern steered fours are training boats.

The rowing boat manufacturer also builds a boat in the expectation that coxswains will approximate a standard size and weight. Not surprisingly, the coxswain's seat is not built for a six foot rower that weighs in at 80kg. This is not to say that a stern steered training boat will not cope with an oversized cox, as it is common practice for a coach, to coach beginners from the coxswain's seat. But the boats are designed for smaller individuals that approximate the size and weight regulated by state and regatta organisations.

The standard national (Australian) and international weight of a coxswain is male 55kg and female 50kg. Boats are designed for a coxswain's weight approximating these standards.



CREW SEATING

The good coxswain will always know where each of his crew members are positioned in the boat and will be able to refer to them by name, seat number and boat side. Each boat has a standard seating arrangement. These follow a sequence from the bow end of the boat – the pointed end of the boat where a white ball is placed (bow-ball), through to the **stern end** of the boat – where the rudder is positioned. The boat travels in the direction of the bow.

The seat that is nearest to the **bow end** of the boat will always be bow seat. The seats will then follow a numbered sequence toward the stern – **two seat, three seat, four seat, five seat, six seat, seven seat and then stroke seat**. The seat closest to the stern of the boat is always referred to as **stroke seat**. Of course, these numbers above refer to an eight and other boats will only proceed as far as there are rowers in the boat. For example, a four would only have the following sequence: bow seat, two seat, three seat and stroke seat.

Boats can also be divided into sections according to which end of the boat the rowers are seated. If an eight is divided into the stern end and the bow end, the rowers can be referred to as the “bow four” and “stern four”. These can be further divided into “**bow pair**” and “**stern pair**”. A four, would of course, only have this pair division.

Each of the divisions mentioned above comprises of a rower from each side of the boat. A boat is divided between two sides. Each side will have an equal number of rowers. If you face in the direction the boat is travelling (as a coxswain will always do and rowers never do) the **left hand side of the boat is referred to as stroke-side** (port side in some rowing circles). **Bow-side is the opposite of stroke-side** (sometimes referred to as starboard) – **it is the right hand side of the boat as you face forward**. It certainly avoids confusion between coxswains and rowers to use these references. It is not hard to imagine the difficulty that could be caused if rowers and coxswains referred to left and right when they both face in the opposite direction to each other. The coxswain's left is the rower's right and visa versa.

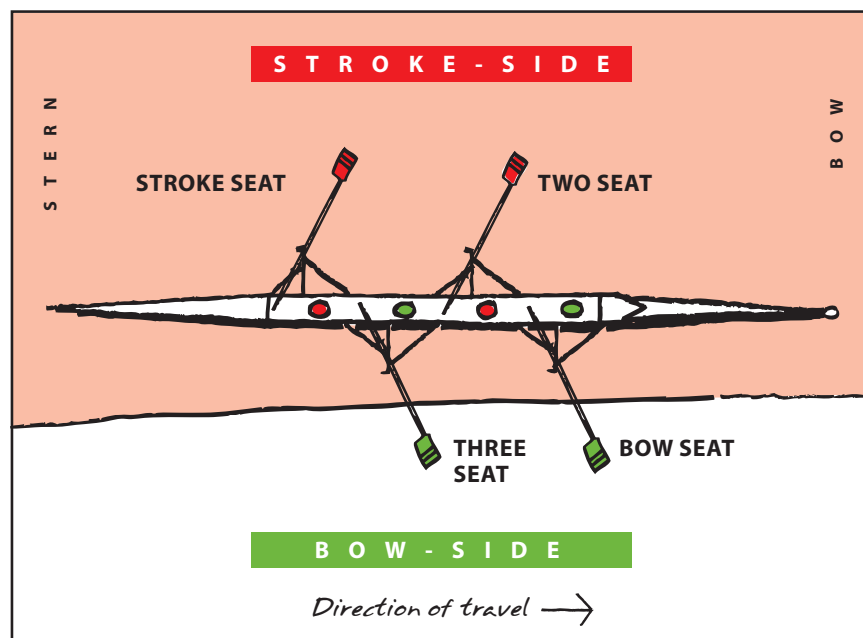
Traditionally, boats are set in this sequence of seats and each seat is dedicated to a particular side of the boat. Stroke-side will refer to all those in seats that have their oar held in a rigger on the left hand side of the boat. For the rower this refers to an oar that is to his right.

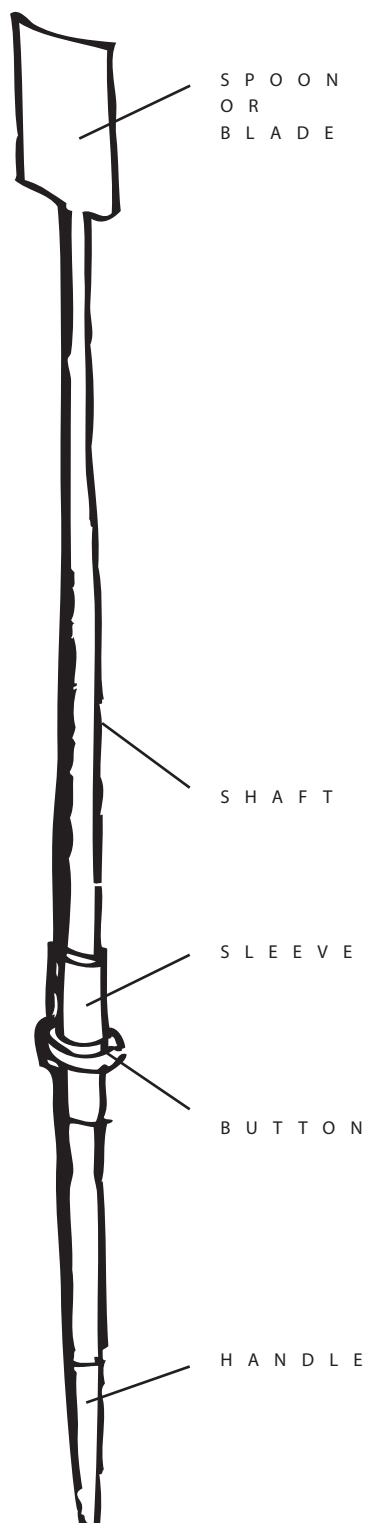
Bow-side is the opposite to stroke-side – it refers to all those in seats with an oar held in a rigger on the right hand side of the boat – the rower's left. Commonly, **bow-side rowers will be seated in bow seat, three seat, five seat and seven seat – each of the odd-numbered seats. As would be expected, stroke-side rowers will sit in the remaining even-numbered seats**. How these sides relate to commands will be covered in *Booklet 2 - Steering the Boat*.

Beware 

There are exceptions to the arrangement of riggers in this order and sequence. Rigging patterns can vary from this conventional pattern and thus change the numerical sequence of bow-side and stroke-side. The novice coxswain should not be concerned with this but at least be aware of it. Most novice coxswains will be confronted with a conventional rig in the first instance.

The good coxswain will appreciate the conventional set up of a boat so that he is then aware when this varies. With every variation there must be an adjustment made by the coxswain in command or intention. Know what kind of boat is being coxed, who is in the boat and where each crew member is seated.





OARS

An oar is the rower's weapon of choice – it is the rower's means of applying strength and power to the water so that the boat may be propelled forward. How well this is done will govern how well the boat travels. The oar is attached to the boat by placing it in an **oarlock** or **swivel** that is closed by way of a **gate** to retain the oar in place. The swivel sits at the end of a wing-like extension off to either side of the boat – these are called **riggers**, as has previously been mentioned.

The size and shape of an oar has evolved in recent years. We have progressed from the longer, wooden oar with a "tulip shaped" blade. Rowers now have shorter oars made of composite materials such as carbon fibre and blades that are larger with a "cleaver shape". Rowers now have the option to shorten or lengthen their oars by an adjustable handle, unlike the standard wooden oar of the past.



CLEAVER BLADE



MACON BLADE

The oar has its many parts (*see the diagram on the opposite page*). The part of the oar that is designed to be in the water is the blade. These blades have a "cleaver" shape, suggesting a shape reminiscent of a large butcher's knife or the head of a hatchet or an axe. They have a larger area beneath the central shaft than above. There are some minor variables in this design to suit personal preferences eg. a plastic edge to the blade, the exclusion of blade surface variations ('smoothie'), greater curvature of the blade surface.

The blade is joined to the rower via the shaft and handle. The shaft is a long narrow cylinder which runs from the blade to the handle. It can be of varying flexibility for the personal preference of elite end rowers.

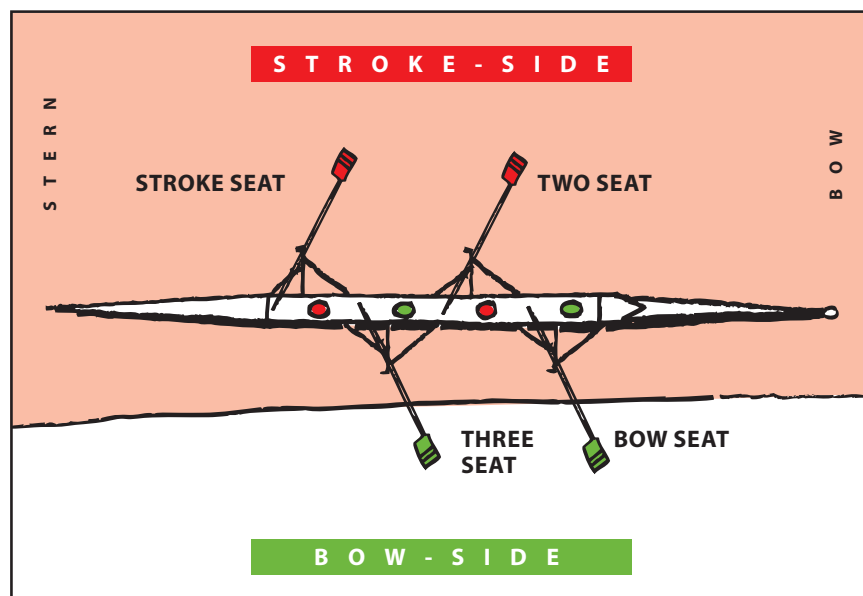
In order to secure the oar in the swivel at the point that the shaft moves through the swivel there is need of a thick plastic protrusion called a button. The shaft is able to slip through the swivel until it meets the button that thickens the shaft area, stopping the oar from moving any further. The oar is thus secured from slipping out of the swivel and the gate is then closed down upon the oar. The button can be moved up the shaft or down the shaft, with the use of a screwdriver, making rowing easier or harder. Coxswains should be prepared to regularly check these for any accidental movement. The coach will advise where the button should be positioned.

At the point where the button is attached to the oar there is a sleeve of plastic that fits over the cylinder of the shaft. This sleeve is designed to accommodate a free turning of the oar in the swivel. Its surface is smooth and shaped with a flat surface at where the button meets with the flat face of the swivel and round where the surface must move through a turning motion.

The handle is, as would be surmised, the point at which the rower makes the connection to the oar. It is the finer manipulation of this handle that can govern some of the rower's technical proficiency (ability to row well). Handles can be made of wood or composite materials such as rubber or plastic. The variance between handle types is a rower's personal choice. Some like their handles to be rough and thinly tapered, while others would prefer a uniformly corrugated surface with greater grip. Blisters, calluses, availability and habit often dictate this choice.

Oars also vary according to which side of the boat (bow-side or stroke-side) they are going to be used. The blade must have its larger surface area beneath the shaft and the concave surface moving forward through the water. The face of most blades also tilts very slightly – the top must be tilted further over than the bottom.

A quick visual check will usually tell which side of the boat an oar should be on – “a cleaver must chop down” as its name suggests. To assist this process, **oars are often marked with numbers and colour bands – odd numbers and green bands are bow-side, even numbers and red bands are stroke-side**. These colours hold true for all watercraft i.e. starboard (green), port (red).



THE BODY OF THE BOAT

There are many parts that make up a rowing shell, not all of them relevant to the coxswain but there are some names that the coxswain will need to know. **The hull**, of course, is not so much a part of the boat but **the body of the boat**. It comprises of the entire outer skin of the boat contacting the water. Traditionally, the body of the boat was made of wood but now it is fibreglass or high tensile carbon fibres that have a lamination applied.

The strength of the hull is assisted by ribs to which the hull is attached. These ribs are also the supporting point to which riggers are attached. They can be made of timber, aluminium or composite materials and may be designed in a U-Frame or Y-Frame with a central spine up the middle of the hull.

Many boats' ribs are now unseen below a **decking** except for the point at which riggers are attached. **The decking is a floor beneath which the interior hull is protected and upon which parts can be attached**. The decking does not inclose the entire interior hull, feet wells are left open for the rower's feet to be placed at a level beneath the level decking. The coxswain's seat is also lower than the decking.

It is important to recognise the ribs as being weight bearing and the points within the boat where heavy items may be placed. This is especially important when stepping into a boat. **A rower or coxswain must be sure to use the ribbing and NEVER the hull when finding a firm footing** – never step into the bottom of the boat between the ribs unless standing on the central spine. The coxswain's seat area will normally have either reinforcement or the central spine upon which to stand.

With most boats now having a deck, the interior hull of the boat is not exposed and the risk is thus negated. The deck is capable of bearing weight and occupants may stand on it. The decking will nevertheless, have a non-slip abrasive foot pad for this purpose and rowers are encouraged to use it. The decking protects the bottom of the boat from this kind of damage and adds to the structural integrity of the boat.

The hull has a top edge and it goes by the unusual name of **gunwale** or **gunnel** (pronounced "guh-nell"). It is the top edge of the boat that runs the length of the boat on either side of the area in which the rowers sit. It is the part of the boat that rowers take hold of to carry the boat (hull up) and to which riggers are attached. Ultimately, it is each side of the boat's hull that sits highest from the water surface.

It can also be used as a 'hand rail' by coxswain and rower when stepping into the boat. With a gunwale in each hand the body weight can be eased into the seat. (When a boat sits on racks in the shed it will normally sit upon the gunwales).



OTHER PARTS

One of the more important parts that facilitate the rower's movement in the boat is the moving seat. After all, it allows the legs to be used. The seat moves because it has wheels attached that roll along two tracks. Although, strictly speaking, the two tracks upon which the seat moves are the slides, most rowers when referring to the slide are speaking of both the seat and the tracks.

For later reference the coxswain should note that they will be required to nominate how far up the slide toward the stern a rower must travel in some rowing drills i.e. **1/4, 1/2, 3/4, full slide**.

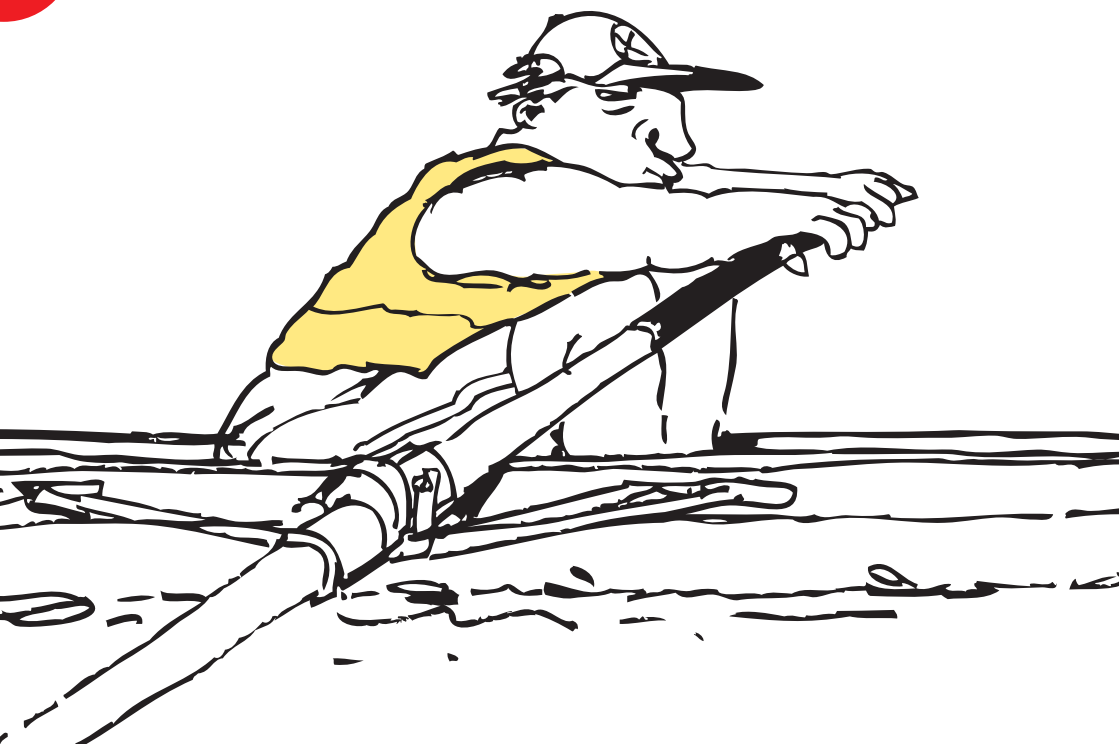
A **full slide** is the full distance between the back of a slide (*note cartoon below*) – '**back stops**' (bow end) and the front of the slide – '**front stops**' (stern end). Partial slide use is proportionate to the amount of leg movement used.

'**Back stops**' requires the legs to be flat in the boat and the slide not to be used. A full slide requires the legs to be fully bent with the knees at their highest point. Partial slide is a nominated point between the two. The rower should not make contact with either the front of the slide or the back of the slide.

In order for the rower to have control over the seat and how far forward or back he travels on the slide the rower's feet must be held in place and at the right distance from the slide. This is the purpose of that part known as the **foot stretcher**. The feet are secured within a shaped foot area that is below the level of the seat. They can be secured by velcro quick release, open toed strapping in the training boats. In racing boats these usually take the form of a permanently attached shoe, also with velcro quick release strapping. Both feet are included within one foot stretcher (two shoes). There is not a foot stretcher for each foot.

The foot stretcher can be moved forward or backward by the loosening of securing points between the feet and to the side of the internal hull. These are moved to accommodate the varying sizes of rowers and the length of their legs. **A tall rower will require the foot stretcher to be moved further away from the rower toward the stern. A shorter rower may need to have the feet moved closer to him toward the bow;** if this is not done then the rower risks hitting the front or back of the stops, at either end of the slide.

The coxswain must be prepared to at least acknowledge this as a possibility when coxing novice rowers. The rower that ends his movement forward or back with a sudden jolting must be advised by the coxswain to look to the positioning of the foot stretcher.



quick glossary

BACK STOPS

The end point on the slide rails, upon which the seat moves, that is closest to the bow of the boat. The seat can reverse no further.

BLADE

The flattened area at the end of the oar that is placed beneath the surface of the water and moves through the water.

BUTTON

A plastic yoke that surrounds the shaft of an oar to secure the oar in the swivel/oarlock.

BOW

The forward end of the boat that breaks the water's surface as it moves forward.

BOWBALL

A small white ball at the front of the boat that covers the point of the bow as a safety measure. Designed to protect others in the event of a collision.

BOW OR BOWMAN OR BOWSEAT

The person seated closest to the bow end of the boat.

BOW FOUR

The four rowers in an eight closest to the bow of the boat (bow, two, three and four).

BOW PAIR

The two rowers closest to the bow (bow and two).

BOW-SIDE

Opposite of stroke-side. All the rowers whose oars are in the water on the right hand side of the boat when facing forward.

BOW STEERED

A boat that has the coxswain lying in the bow of the boat to steer. Also referred to as a front-loader.

CLEAVER

A blade that is shaped like a cleaver or hatchet, they have a greater surface area than a traditionally shaped blade.

COXSWAIN / COX / COXEN

A person, usually of small build, that has the primary responsibility of steering a rowing boat and giving instruction to rowers.

COXBOX

Electronic equipment used by the coxswain in the boat to amplify voice and measure time, strokes taken per minute.

COXED

Shells that carry coxswains for steering.

COXLESS

Shells that do not carry coxswains and are steered by other means.

COXED FOUR

A shell that has a coxswain and four people rowing with one oar each.

COXED PAIR

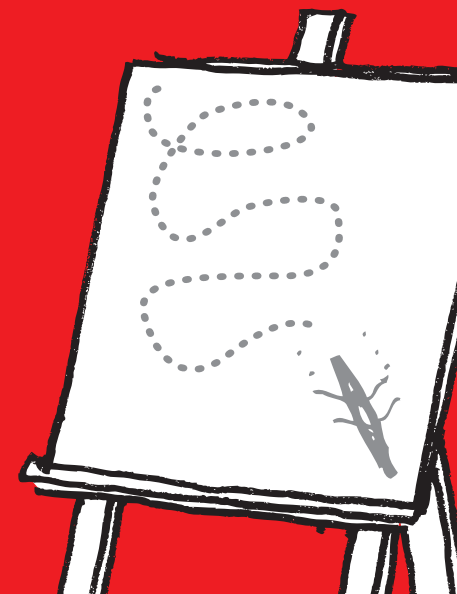
A shell that has a coxswain and two people rowing with one oar each.

COXED QUAD

A shell that has a coxswain and four people rowing with two oars each.

DECKING

A floor beneath which the interior hull is protected and upon which parts can be attached within the boat.



quick glossary

cont'd....

DOUBLE SCULL A sculling shell that has two rowers each using two oars, one in each hand.

EIGHT A sweep oared shell with coxswain that has eight rowers using one oar each.

FIN A thin narrow metal plate inserted into the stern hull of a boat to maintain the boats direction and stability in the water.

FOOT STRETCHER A plate within a boat where feet are secured. Feet must be held in place and at the right distance from the slide. The feet are secured within a shaped foot area that is below the level of the seat. They can be either velcro strapping or an attached shoe.

FRONT STOPS The end point at the front of the slide tracks – the point beyond which the rower's seat can no longer move forward.

FULL SLIDE The full distance between the back of a slide and the front of the slide – the point on the slide closest to the stern of the boat.

GATE A bar that closes down over the top of the swivel to secure the oar.

GUNWALE OR GUNNEL (pronounced "guh-nell") It is the top edge of the boat that runs the length of the boat in the area rowers sit. It is the part of the boat that rowers take hold of to carry the boat (hull up) and to which riggers are attached. Ultimately, it is each side of the boat's hull that sits highest from the water surface.

HANDLE The part of the oar the rower holds and manipulates.

HEAVYWEIGHT Any rower that does not fall into the lightweight category.

HULL The body of the boat and outer skin that makes contact with the water. It supports the weight of everyone on the water.

LIGHTWEIGHT A competitive category limiting the rowers by weight.

QUAD An abbreviation of the term 'quadruple' referring to four rowers within a boat with two oars each.

RACING BOAT A narrow, light shell that is manufactured of strong lightweight materials; often reserved for experienced rowers.

RIBS They are the structural struts for the hull to which the hull is attached. They are also the supporting point to which riggers are attached. They can be made of timber, aluminium or composite materials and may be designed in a U-Frame or Y-Frame with a central spine up the middle of the hull.

RIGGER Triangular metal tubing that supports the oar out from the boats side.

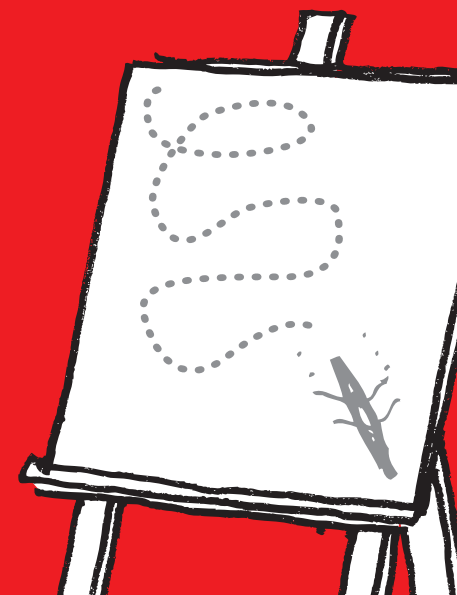
RIGGING Adjustments that can be made to a boat's riggers (positioning or setting) or other parts, to influence the rower's application of the oar to the water.

RUDDER Used by the coxswain to apply resistance in the water to steer the boat.

quick glossary

cont'd....

SCULL	A boat in which each rower has two oars. (The oars used by scullers can also be referred to as "sculls")	STERN STEERED	The positioning of the coxswain's seat at the rear (stern) of the boat in order to steer.
SEAT	Where the rower sits in the boat. Each seat is numbered from bow through to stern, beginning with bow seat and ending with stroke seat.	STROKE	The rower nearest the stern of the boat that has no other rower in front of him as he looks forward to the stern.
SHAFT	The long round cylindrical connection between the handle and blade.	STROKESIDE	Opposite of bowside. All the rowers whose oars are in the water on the left hand side of the boat when facing forward.
SHELL / ROWING BOAT	The name given to the vessel used by rowers to row.	SWEEP	Each rower has one oar (as opposed to sculling where each rower has two oars).
SIDE	Refers to the division of the boat down its centre between stroke-side (port) and bow-side (starboard).	SWIVEL	A plastic coupling that swivels on the end of the rigger to secure the oar.
SINGLE SCULL	A one person boat with two oars (sculls).	TRAINING BOAT	A shell that can be called a "tub" boat or a "regulation" boat. It is usually heavy, wide and made of relatively inexpensive materials. Most often used by novice rowers.
SLEEVE	The sleeve of plastic that fits around the cylinder of the shaft to assist the oar to turn freely in the swivel.		
SLIDE	Two u-shaped tracks upon which the wheels of the seat are guided and move.		
SMOOTHIE	A blade design that follows a clever shape but the face of the blade is smooth, without the traditional central spine.		
STERN	The rear of the boat where the rudder may be found. The direction in which all the rowers face.		
STERN PAIR	The two rowers nearest the stern end of the boat (in an eight – stroke and seven, in a four – stroke and three).		
STERN FOUR	The four rowers nearest the stern end of the boat (where the coxswain sits) in an eight.		



the good- COXSWAIN

SO WHAT SHOULD THE GOOD COXSWAIN NOW KNOW FROM READING THIS BOOKLET:

- ✓ I know what some of the personal characteristics are of a good coxswain.
- ✓ I know whether I have the potential to be a good coxswain.
- ✓ I know what coxswains do.
- ✓ I know what coxswains like about coxing.
- ✓ I know how boats differ from each other and what they look like.
- ✓ I know the different seats in a boat for a rower.
- ✓ I know bowside from strokeside, stern from bow.
- ✓ I know what the characteristics are of an oar.



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