

BAIR ISLAND AQUATIC CENTER

SCULLING MANUAL

By Mike Sullivan

Spring 2002

Boat Handling

Equipment handling is a much-overlooked aspect of rowing. Often in teaching we are in a hurry, skip steps, or simply forget.

What I offer is a method of boat handling I've learned from 30 years of rowing and coaching in various clubs and colleges around the US. There are other valid methods of boat handling, but it is important that the club adopts a consistent, safe approach.

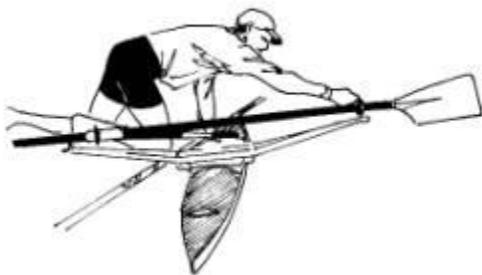
Boat handling methods I suggest may seem like overkill for certain boats. Some modern equipment is pretty durable, and it would seem could accommodate rougher treatment, such as being set down on the ground or dock and pushed into the water, or for easily undoing the oarlocks. Even so, I urge us all to stay with methods of boat handling that can transfer easily from rowing craft to rowing craft, and treat each boat as if it were a precious 1930 restored wood single.

We are creatures of habit, and I'd hate to see you meet a friend who offers you a chance to scull their 1968 Staempfli single, a very expensive single to repair, then you step through the hull getting into it.

Launching

1. Log in with time/boat ID/sculler's name
2. Take sculls to dock - if just a few people are out and about, set sculls together blade edge down on dock in middle of dock, else put handle down in oar box. Carry sculls with blades in front of you with the oars parallel to the ground.
3. Put out slings if none out. I believe a set of slings should be set up anytime someone is on the water; it is a quick indication to others that a member is out on the water.
4. Lift boat from rack, tilt outside rigger down so inside doesn't drag on hull below.
5. Watch above rigger. Do not scrape the hull of the boat below.
6. If removing boat from bottom racks, use set of slings to help change grip, i.e., set it on slings, spin, then lift again. This is an effective method.

7. For two-person boat, grab boat at least 2 ft. from bow and stern, each watches the length of the boat when removing from rack. Bow person watches stern, stern watches bow.
8. Carry two-person boat sideways in the crook of your arm, deck
8. Carry two-person boat sideways in the crook of your arm, deck toward you.
9. When carrying boat by yourself, carry over head, or on your head and slightly tilt the boat as you negotiate between racks. Another fine option is to carry it in the crook of your arm, with hand on the hull, and seat resting on shoulder.
10. On dock, toe the edge of the dock. Put boat in water so it doesn't drag on dock, bend knees and lower boat. For difficult-to-handle boat or in a breeze, put one end in water first so you have a three-point balance, and slide out into the water, then place parallel to dock.
11. Take off shoes. (Shoes track sand and dirt into boat.)
12. Close ports, plugs. If it is dark or will become dark while you row, put bow and stern lights on your boat. Bow lights are red and are next to the log book. They insert into a clip on the bow.
13. Dockside oar goes in oarlock blade edge down all the way to button in oarlock.
14. Waterside oarlock is opened by stepping in the middle of the center strip, putting inside hand on dockside rigger and reaching out to waterside oarlock. Never step or even set feet upon bottom of the boat unless it is specifically designed for it. Water side oar remains shipped so oar handle is on dock until you are ready to get in boat. This prevents oar from drifting.
15. Fasten locks before getting in boat.
16. Foot center strip, dockside hand on boat, outside hand on both scull grips. Stand in boat balanced, then sit into seat slowly.
17. Lean boat out so dockside scull is off dock, give hard long shove, and avoid dragging blade on dock.
18. Adjust your foot settings and other settings on the water and not on the dock. This is suggested if there is other boat traffic waiting to dock or other traffic waiting to launch.



Tall people can cheat some

COURSE

1. Right hand rule on the course, when in doubt, move to your starboard.
2. Be aware of boats launching and docking at Stanford dock and High School beach.

Rowing

No, I won't teach you to row here, but will offer a couple of overlooked boat handling methods on the water.

1. Backing: Blade should be square and backward. Push with hands and body at most, no slide, recover ON the water. To recover on the water, force the blade to be feathered backwards from the normal seat of the oar when it sits in lock, i.e., stern edge should be forced higher than the bow edge on recovery so the blade doesn't dive.
2. Hold Water: The most common method of holding water -- pushing the blade into the water by lifting the handle -- is inferior. Holding water is a three-step process:
 - A. Stop rowing, oars rest flat on water.
 - B. Feather blades exactly flat (rotating slightly backward) so that blade edge catches and drags water. The blade will try to dive, so resist it.
 - C. Depending upon how quickly you need to stop, rotate the blades backward, very slowly if you are stopping gently, more quickly in an emergency.

The advantage to this method is that you have far more control of the direction and balance of the boat while stopping. You can hold water on one side to turn your boat under complete control.

A single can be stopped dead in less than a length from full speed using this method.

3. Steering: Get a bearing on your course BEFORE you start rowing. Line up your bow to where you want to go, then look off the stern and find a landmark on shore as a guide. Compare your landmark to your boat wake to help you guide your boat in a straight line.

Glance around often to begin with to look for other traffic, obstacles etc. every six strokes or so. There is a technique Sully can show you after you've done your 100 miles. Steer your boat on the move by pushing harder on one foot, or on a severe turn, reaching farther on one side than the other and pulling harder.

Docking and Boat Care

1. Point boat at 45-degree angle to dock, a couple strokes firm, hold water water side to drift in slowly.
2. Check footboard pins for tightness.
3. Stand up, step out, keep hand on sculls, hand on gunwale or rigger as you stand, not on the dock.
4. Undo outside lock, similarly to how you unlocked it when you launched.

5. Open ports and plugs at the stern post.
6. Lift straight out over head.
7. Drain boat of water at dock.
8. Put boat in slings right side up, then turn upside down in slings.
9. To spin: lift boat an inch off slings, spin toward you 3/4 way around, set to slings, then lift to spin the rest of the way.
10. Lay sculls on slings or deck so that handles and collars do not touch the ground, blade edge down. A good method is to place the handles on the slings under the boat. That way, you can rinse both sculls and boat.
11. With boat upside down on sling, rinse top, bottom, inside, and sculls with fresh water. Give the tracks an extra wash.
12. Dry riggers, tracks with towel, keep towel off ground at all times and hang to dry.
13. Check oarlocks are closed, re-rack boat, bow points south (toward San Jose).
14. Sculls racked in proper location, 2x on left, 1x in middle, Aeros on right.
15. Log out time, damage, dangerous situations reported.

Never lean the sculls vertically, if they must be set down, set them on the ground. Gravity – it's the law.

Once a month, each boat should be washed with soap and water, and dried and lubed with WD40 on moving parts. Inspect aluminum parts for corrosion, especially where it contacts steel parts. Corrosion begins as a fine white powder. This inspection should be done before cleaning, and noted. Rigger nuts should be loosed and tightened, footboards loosed and tightened, and seat removed and cleaned.

A spray of silicone on the seat tracks, seat axles, and oarlocks is helpful.

Footboards should be set so that as you sit in the finish position with legs flat in layback position, the ends of the scull handles are approximately a thumb's-length from your chest, i.e. you can touch your chest by extending your thumbs.

Safety

1. Log in and out.
2. Be aware of temps and conditions. Use the 100 degree rule: Do not scull by yourself if water temperature +air temperature < 100.
3. If you are not confident of swimming in open bay water, or cold water, please wear flotation.
4. If you should tip over, re-enter from the water, as the mud can be very difficult to walk/stand in; during high tide, it's OK to swim boat to shore and re-enter boat from there.

Water Re-Entry

1. Right boat, put scull handles together with both blades flat on the water perpendicular to boat.
2. Hold both scull handles with one hand, push seat to stern of tracks.
3. With other hand, pull yourself across boat on top of seat, you want to get to a position where you are laying straddled across the boat. Keep hold of those handles, keep oars ON water.
4. Use your non handle hand to push yourself up enough to twist to get your butt on or near the seat and slide a leg across.
5. Make your adjustments to sit back on the seat and feet back in footboards.

Sculling Equipment Usage

BIAC sculling boats and oars are to be used only by members who have been certified or checked out properly. BIAC boats are marked with numbers on the side, and most club equipment has red tape around one or more riggers. There are sculls that correspond to most boats, and currently one set of hatchets that are not specifically reserved for a particular boat.

The oar box is divided in three sections. Please place sculls with concave part of blade facing forward. The sculls are marked by either boat name or number on the shaft. Sculls for the doubles and the hatchets are in the left section, sculls for the singles in the middle, and sculls for the Aeros on the right section. Returning sculls where they belong makes it easier for the next person to find them.



Sculling Certification Guidelines

Before you can launch a boat from BIAC by yourself, you must be certified to handle the boat. This is true for private as well as club-owned boats. Non-certified scullers may row with a certified sculler, or during supervised sessions.

Certification means the sculler understands the standards for safety, boat handling, and traffic patterns. The sculler is responsible for his/her own safety and understands that certification procedures are not the replacement for common sense.

There are methods of boat handling taught by the club that need not be adopted by individuals to gain certification; the member must demonstrate proper care of equipment, and an understanding of dock rules and traffic patterns.

Checklist

Boat Handling/Safety

1. Launching shell
2. Traffic patterns on bay
3. Safety procedures - dumping
4. Safety procedures - collisions
5. Safety procedures - weather, tides
6. Docking
7. Racking, boat care
8. Required logging and damage report

Sculling skills:

1. Proper hands
2. Feathering
3. Simple turns (being able to anchor blade and row other)
4. Backing (recovery on water method)
5. Holding water (3 step method)
 - a. Stop rowing, oars flat on water
 - b. Reverse-feather slightly
 - c. Gradual reverse-feather to backing position
6. Hold water one side
7. Be able to do a circle course on channel
8. Getting back ON course when you find yourself in wrong place

Learn To Scull Sessions

1. If you wish to learn to scull, contact Mike Sullivan at sul@stanford.edu. Pick a date and email me; I'll confirm that I got it. Available times for on-going lessons are Wed. evenings at 6pm, Thurs. mornings at 6am, and some Saturday mornings.

2. Wear comfortable, weather-appropriate athletic clothes (nothing loose-fitting or baggy) and rubber-soled shoes. Choose a close-fitting wool knit jacket or pullover; include a nylon shell if it's cold.

3. Cost is free for the first time, then \$100 for a month. Beginners average 3-4 sessions to become certified to take a boat out on their own.

4. Sessions cover boat handling, nomenclature, and basic sculling skills.

After Certification

1. You may row an Aero as often as you like for the remainder of the month, at your convenience, then decide if you wish to join.

2. Row the prescribed course from dock to the wires and back 20 times, for a total of 100 miles.

3. At this point, you have three choices:

- A. Schedule further instruction on technique and training Wed mornings at 6am. These are drop-in group sessions during which you will row an Aero.
- B. Start rowing the other BIAC singles.
- C. Row a double with other certified members.

The "100 mile" rule is admittedly somewhat arbitrary, but by the end of that distance, beginning scullers have learned to negotiate the primary rowing course and row on the right side while they're going slowly. This is a safety issue. It takes time to row a straight line, see where you're going, and negotiate turns.