

Converting from Sweep Rowing to Sculling

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So you've just graduated from college where you rowed in eights and you want to learn to scull so you can keep rowing. Or you rowed sweep in high school 20 years ago and now you want to learn to handle a single for fun and exercise. Or you are a potential National Team member who has rowed only sweep and you realize that seven more seats on the national team will be open to you if you know how to handle two blades. If you fit into any of these categories, then keep reading.

This article addresses the peculiar set of issues that confronts a sweep rower who is converting to sculling. *Caution:* it does not encompass the problems inherent in beginning to scull that are experienced by one who has never rowed before. An experienced sweep rower already possesses a huge pool of knowledge that can be applied to sculling. This article addresses only the small differences, the subtleties, involved in two-oared rowing that do not exist in sweep.

I. Starting Out

In the beginning, you don't need a fine shell. A broad, heavy boat, such as a wherry, or training single, or recreational single will serve. You will find, however, that your initial progress will seem swift, and soon you will seek equipment that satisfies your newfound sensitivities. Furthermore, no matter what boat you start in, it helps to get someone experienced to rig it especially for you.

In the long run, you are going to want to buy a boat of your own. If you row in the ocean, you'll need a broad, roughwater boat. If you want to compete in flatwater events, you'll need a sleek, lightweight shell. In either case you'll need a strong, light pair of oars.

Once you get out in a boat, you will quickly pick up the basic motion. If you remember one piece of advice from this article, however, let it be the following: learning how to scull takes time. Sweep rowers do have a tremendous leg up, and your development in the beginning may well feel meteoric. However, if you assume that you will be able to jump into a racing single and immediately make it fly, you may be disappointed. The subtleties and graces of a sculler are acquired gradually and improve over time.

The immediate upshot is that if you are accustomed to being in superb shape you could get frustrated (and fat) in the first few months. Many rowers spend their first year of sculling rowing hard up and down the river trying to get a workout, entirely oblivious to technique. Other, perhaps smarter, rowers, such as Ginny Gilder, give themselves several months in the beginning just to learn the feel of a sculling boat.

You have to choose your own course but in an optimal situation try the following: set aside a three-month period just to learn how to scull. If you can keep up another form of workout during this period, do so to stay fit. In the single, just put in a lot of miles and think about technique. This suggestion doesn't mean you should avoid working hard in the boat. It does mean, however, that you can take



photo: Brian Hill

Judy and Carlie Geer at stroke and two of the 1983 National Team quad. Note relative knee positions.

the time to wander down river in a double with an old-timer or to do more catch drills than you'll ever want to do again.

II. Technique

Once you've found a boat and allocated yourself time to learn, you can begin to absorb the technique of sculling. Several differences from sweep rowing will immediately jump to your attention; others will emerge as you spend more time in the boat.

A. Hands

The most immediate and obvious difference is that you're holding two oars instead of one and each oar has a smaller handle than does a sweep oar. Worse, the darn things cross over each other.

Bloody knuckles are inevitable at first, but the following may make it easier: lead away from the body with the left hand slightly before the right. Some scullers lead out with the right; others are rigged so that their hands can recover left directly over right. You may develop either of these styles later, depending on who you row with, and how you are rigged. To avoid knuckle scars at the outset, however, try to be consistent with the left lead.

In addition, sweep rowers have only two places they can put their thumbs: on top of the oar and under it. In a sculling boat, the thumbs belong over the ends of the sculls with the forefinger of each hand as close to the end of the handle as possible. This position provides maximal leverage over the oar. With the hand in this position, and the wrist flat, the oar handle should rest naturally in the fingertips.

B. Balance

Once you've managed to shove yourself off the dock, the next difference from sweep rowing becomes painfully evident: you and you alone are answerable for balancing the boat. The sweep drill of "starboard-lower-their-hands-to-get-the-boat-off-port" is still theoretically applicable, but the marginal error rate, i.e., the proximity of the water, is considerably closer.

The key to balance is dependent on hand level only in



photo: Steve Fontanini/L.A. Times

Joe Bouscaren "sends it" at the release.

part. Precision in the level of your hands at the release will contribute remarkably to the balance of the boat. A relaxed and even body position will also help. As you move up the slide, keep the knees steady, shoulders relaxed. Learning this fundamental relaxation will benefit you at all stages of your sculling development.

Despite all helpful hints, you should realize that balance is just plain hard to learn. You may be dragging your oars on the water for a while. Keep trying to get them off; you'll get there!

C. The Catch

The sculling catch is one of the most elusive and critical technical elements that a sweep rower must absorb. The reason is twofold: first, the width of the sculling blade is less than that of a sweep blade, making the vertical motion of the catch (or release) smaller; second, a single scull moves much slower than an eight, making the timing of blade entry different.

Any good sweep rower already knows the fundamentals: the catch is essentially part of the recovery, not part of the drive. The blade should be square and in the water before pressure is applied, and the gesture that places it there should be a smooth continuation of the recovery. Additionally, the body should be in the strongest, readiest position possible at the catch. The rear end should be fully drawn up under the body, the torso comfortably extended forward but not overextended.

From here, however, the sculler differs from the sweep rower. The shoulders are square to the stern, the knees symmetrically aligned with the body. (Some rowers, such as the Geer sisters, row with their knees together. Others, such as West Germany's Kolbe, row with them apart. Do whatever seems comfortable, bearing in mind that, as with a leg press, the most direct line of force is a straight one.) Hand level should be essentially identical when the blade is buried except that, in more experienced scullers, the left hand will be slightly higher than the right due to rigging.

The entry of the blade into the water also differs slightly. Because the width of the sculling blade is narrower, the arm and hand need not delineate as big a vertical motion in sculling. The definitive vertical chop of many college crew catches is not only unnecessary, it may well stop your single short. All that is necessary is to take the weight of the hand and arm off the oar, allowing the blade to drop in gently and lightly.

The momentum of the single is much less than that of an eight. The timing of the catch is therefore different.

Harry Parker describes the single catch as being "slower." Many others describe it as being "softer" or "more gentle." Don Spero advises that when learning to scull, the most important thing to learn is how to catch without missing water and without checking the boat. That doesn't seem particularly different than in a sweep boat until you note that he says it is the *most* important element -- more important than swing or power phase or a perfect release.

Tom McKibbin once advised the author to do the following: hang a weight from a string off the brace between the knees that holds the footstretcher. Take your single out on a very calm morning and try to scull without making the weight swing at the catch. If you can do that (I couldn't), you've accomplished something very rare!

D. Power Phase

Due to the slower speed of the single as well as the increased total blade surface in the water, the total load on the sculler is heavier and lasts longer per stroke. It is still important to apply power as early as possible without disturbing the boat. In a single, however, there is more of a sense of accelerating the boat through the water. Some scullers describe it as a "slower" power application, gradually accelerating the blade through the water. Bill Purdy describes the power application as "slightly slower and more gradual with acceleration into the finish. In sweep, there's more of an all-out explosion at the catch." Joe Bouscaren calls it giving the boat an extra "send" at the finish. Ginny Gilder notes that the upper body must be particularly strong in order to accelerate the boat through the second half of the drive.

Vital to the power phase, also, is relaxation in the upper body. Due to the larger load and the need to control each oar with just one hand many newly-converted sweep rowers tend to clutch the blades, resulting in tension in the arms and shoulders. Relax. Allow the arms to be simply a link between the power in your legs and back and the water. Joe Bouscaren points out that in a single, the drive requires "smooth, sustained" muscular contractions. Break the elbows only after achieving at least half the leg drive, with a smooth application and acceleration.

E. Release

The release in a sculling boat should be extremely quick and clean with hands coming right away from the body. When sitting at the release, the oar handles are pointing at the ribcage and your thumbs are within about an inch of touching your sides. If the hands were to come away slowly from this position, the body would inevitably get caught by the thumbs. In addition, in team sculling boats the proximity of one rower's sculls to the next one's puts a premium on having a clean, quick release which does not send up a lip.

The sculling release, like the sculling catch, is not a gross motion. The vertical motion necessary to remove the blade from the water is less than that required in a sweep boat. Although the blade emerges square, the feathering motion must be almost simultaneous with the release and very smooth.

F. Feathering

To feather in a sweep boat, the rower drops the inside wrist, while the other hand allows the blade handle to rotate within it while keeping the wrist level. In a sculling release, however, the blade is rolled out into the fingertips while the wrist remains relatively level.

At the catch in a sculling boat, the wrist is flat and the angle between the first (closest to the wrist) and second sets of knuckles is no less than 45°. When you release a sculling blade, you roll the handle out into the fingertips

so that there is a straight line running from your forearm through the wrist, through the first knuckle, all the way to the second knuckle. Lisa Hansen Stone and Tom McKibbin both describe the motion of rolling the blade back into the hand for the catch as being "like a punch": the fingers curl up as the arm moves into the catch.

The release and smooth feathering are the elements of sculling that can take years to perfect. Once achieved with any consistency, however, the boat will start running like never before.

G. The Recovery

The recovery in a sculling boat is similar to that in sweep. Some coaches and athletes advise allowing the back to come forward slightly as the hands come out of bow, rather than adhering to the old-school sweep method of holding the back in bow until the hands have gotten away. The pattern of the left scull leading out will mean that the right must make up a little distance later in the recovery so that they become parallel at the catch. Besides these small details, however, everything learned in sweep is applicable in sculling.

III. Training Alone

After you've been on the water long enough that the novelty wears off, you may find motivating yourself to work out every day alone is hard. As one sculler puts it, "in a single, one is always training alone. If you don't lug that boat, it stops. A depressing revelation at first, liberating later when one has confidence and realizes one isn't dependent on anyone else's foibles."

Most of the scullers and coaches who responded to the questionnaire used in preparation for this article reported that the adjustment period in changing over from a team to a single was very difficult. As a result, each developed his or her own way of handling the psychological difficulties: several recommend regular workouts with other scullers; others recommend a double or quad workout once a week.

While these pieces of advice are helpful, in a fundamental sense you have to face the fact that you are, finally, alone in a single. The single forces you to confront your own strengths and weaknesses, whatever they happen to be. That can be tough. At the same time, to succeed at your own goals, be they winning races or keeping your blades off the water, can be an extraordinary experience.

IV. Coaching

In a perfect world, every sculler would have a coach and every sculler's coach would be to that sculler exactly what he or she needed a coach to be. Of course, it is not a perfect world. Worse, there are few coaches available.

If you have access to people who have had experience coaching, you are lucky. Unlike the college eight experience, however, you should be prepared for a different relationship with your coach. Your coach will most likely end up being more of a confidante, consultant, adviser, friend, promoter, and occasional critic rather than a decision-maker or autocrat. If you can't get a coach, try to get a sculling friend to take a look at you occasionally.

V. Muscles

The primary muscles used for sculling are the same as those used in sweep, with the exception that the upper body is emphasized more in sculling than in sweep. However, there are a few smaller muscle groups to which you might devote special attention when you make the conversion.

Beginning scullers frequently complain of tightening in the forearms during workouts. Because of the added load on the blade, the different size of the handles and the



photo: M.L. Thomas

Ginny Gilder relies on a strong upper body to accelerate through the second half of the drive.

increased use of the fingers as opposed to full hand in feathering, a newly-converted sweep rower often does not possess the forearm and hand development necessary for effective sculling. Luckily, the best antidote for this ailment is to scull more often. If you really have a problem, doing bench rows helps as do any weights or exercise equipment that involve squeezing forcibly with the hand.

VI. Team Boat Sculling

Most sweep rowers have had some experience in fours and/or in pairs, and know how different each of these boats is from the other and from an eight. Doubles and quads possess equally distinctive characteristics.

The double is an excellent learning boat. Rowing it well, however, is a combination of art and luck in finding a compatible partner. The heart of a good double scull is finding two people whose power phases blend together. Despite the fact that each person has two oars and therefore are not pulling "against" each other, most scullers find that synchrony in a sculling boat is actually more difficult than in a sweep boat. As Bill Purdy says, "there are twice as many oars, two arms moving in opposite directions, and therefore twice as many possibilities for problems."

For a quad, "you need an arbiter, or at least a coach," says one respondent. The overriding sense of rowing a quad is that it is incredibly quick. Bladework must be swift and precise at both ends of the stroke. Since the oars do

not alternate port and starboard as they do in a sweep boat, the blades are closer together and keeping them parallel is crucial. Because of the speed of the boat, power application and blade entry must be extremely quick. As John Biglow notes, "A quad responds more to rowing together than it does to power." Therefore, alertness to the technical side is essential. As Elizabeth O'Leary points out, "you can't just 'zone out' of a team sculling boat the way you can in an eight."

The real problem with team boat rowing in the United States is that our scullers tend to train primarily in singles. At the same time, every one of the rowers who responded to the questionnaire noted that performing well in either a double or quad requires a large number of miles together. Many also noted that weekly workouts in either a double or a quad or both helped them in their singles by honing their quickness and by breaking the monotony of rowing alone.

VII. Conclusion

The last page of the questionnaire sent out in preparation for this article was left blank in the hopes that people might offer thoughts other than those solicited. Two responses particularly caught the eye. Elizabeth O'Leary wrote "Sculling...is a graceful, lovely sport that combines strength, power and determination with finesse and style. It is almost a whole new sport!" Chris Ernst had the following to offer: "Changing from sweep to sculling really is... 'the change of life'...The people who choose to scull really have to learn to go it alone, to be more disciplined, to learn what rowing is really about so they can critique their own technique, devise training schedules. They have to grow up. Learning to scull gives invaluable benefit to one's life beyond forcing one to be a much better rower than would result from a career of rowing in eights. Sculling lets you show people...what you can do. Better than that, it lets you know what *you* can do."

Sculling is a lifetime sport. With attention to the details outlined here, the transition from sweep to the rest of your life can be smooth. If you've had a taste of rowing through a sweep program and are coming back to hear the water run beneath a hull again then I need say nothing more.

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