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Tips for paddling class V whitewater in an open canoe, and for other boats as well!

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Fellow open boaters, yes, we all know that we are a niche within the whitewater paddling world. However, small as that niche maybe, it has been a strong presence in the history of the sport, and continues to be. And within our little realm of whitewater canoeing, we want to progress just as much as the next guy. For many of us who are paddling class three, or four, and are looking to make the next step up, I would like to share with you the advanced techniques and concepts that can really make a difference. These were the major crossover skills that brought me to paddling class IV+ and selective class V successfully and relatively comfortably.
Here are my tips for training for, and paddling advanced whitewater in an open canoe, and quite beneficial for all types of boaters as well! (In order of training steps, not in order of importance.)

A reliable combat roll.

Ahhhhh . . . the roll, often a grey area amongst the skills of a canoer. Though, if you have been practicing for a while, you probably already have a pool roll. Now you need to make it a reliable combat roll. Not only because it saves you from taking a swim, but because you greatly limit how hard you push yourself, how hard you train, when you are afraid of going over and taking a swim. When you know that you can roll in almost any situation, then you're not afraid of going over, then you're not afraid of challenging yourself, training, and trying difficult moves. And by trying difficult moves, I mean making comfortable rapids and comfortable moves . . . more difficult, not necessarily more difficult rapids. And that's how you train to become better. More difficult lines, tighter eddies, bigger waves, harder ferries, etc. I emphasize a reliable *combat* roll, as opposed to a reliable pool roll. So how do you make that transition? Go surf a large wave or an intimidating hole, then when you go over, attempt your roll. Do this endless times. In calm water, your fully planning and expecting your roll when you practice it. In a rapid you're not, and that's what messes you up and scares you. But in a hole or wave, you sort of are expecting it, yet you don't know when. So then when you've done enough surf initiated rolls, your combat roll will start to happen instinctively. And the variety of turbulent water you will find around a hole or wave will also help train you for the real deal.

Side surfing.

Lots of it. Get in the bigger holes, the ones you think will definitely drop you. This will teach you how to roll your hips instinctively, how to stay loose at the hips, and how

to balance the boat. (So many people avoid this necessary skill builder, but with a reliable roll, you'll be less intimidated.)

Work up front.

Where you put your body, and where you work your strokes, make a large difference in performance. I like to think of my boat as having three different zones. The rear zone, center zone, and front zone. Sounds funny, but it's really good to keep that in mind, helps you to be conscience of what zone you're in. Okay, so what's so important about these zones? Well, you want to spend the least amount of time at the rear of the boat. Most strokes placed back there are inefficient, and hurt your momentum. That stern pry that all of us canoers have a love affair with, needs to be used as least as possible. It helps a little, but hurts a lot by stalling the boat's speed and putting our body posture back. Every time you feel like doing that corrective stern pry, try to do a stroke up front in its stead, like a bow draw or a cross forward stroke. You really need to keep your momentum up in pushy water. Momentum is what allows you to go where you want to go, make the moves you want to make, and stay stable. My personal reminder regarding current has always been, "catch *it*, or its going to catch *you*." When you start slowing down in pushy water, the current, waves, holes, all start catching the plastic on your boat with their sticky little hands, rolling and spinning you in all directions. So *you* catch *it* with forward strokes, and go! Strokes at the far rear also cause you to have a slight back leaning body posture, which is the other reason to avoid strokes back there, because even leaning your body a little back greatly compromises your stability and balance. It's a vulnerable place to be. Of course there are exceptions, an occasional strong stern pry when you have a lot of speed can be nice, and it's often essential to throw your weight back after a hard forward stroke to get a boof or unweight the bow for encountering a large wave or hole.

The next zone up, the center zone, is an okay place to be. Having your upper body and paddle strokes there should mostly only be used for moving the boat laterally across the water, for casual forward strokes, and for braces, all of which are necessary. And as I said, its okay to be hanging out in the center zone for those reasons, but its not as good as being up front!

Put your game faces on, lean forward, and work up front! This is where you want to be most of the time, on the offense, and driving. Strokes placed up front lend toward keeping good momentum and good control of your tracking and direction. You want to be on the offense and driving the boat quite often, and you want to be doing it from the bow as much as possible. This means doing a lot of cross forward strokes, get used to them, you will. In addition, just a little bit of forward lean makes a large difference in your stability and control over the boat, by not only lowering your center of gravity, but also by weighting the bow and engaging the forward chines. The next paragraph explains even more on the advantages of leaning forward and working up front.

Steer with you hips.

Of course we do most of our boat steering with paddle strokes, but our co-driver, hips, should be steering at the same time. You do this by leaning forward, tilting the boat onto

one edge or the other, and therefore engaging the forward chines. The boat then will favor following the edge that you have engaged. So, if you're tilting the boat on its left edge, it will want to turn left. The same concept works with just tilting the boat and without leaning forward, but by leaning forward on the forward edges, you will have more precise control over the turning and better tracking over all. Remember this though, its not as simple as tilting the boat in the direction you want to go, steering with your hips is much more involved than that. For example, lets say that you are driving toward river left for an eddy. Initially you tilt the boat on its left edge and engage that chine, but along the way you find that you are turning to sharply to the left, and the slight adjustments in your paddling strokes are not making enough difference because the boat is stubbornly following an arc dictated by the chine. So you tilt the boat over to the opposite chine, the right side chine, to decrease the amount of turning the boat is doing while still heading to the left. Now that you have made your adjustment in course, you tilt the boat back over to the left chine. Almost to your eddy, a small rock suddenly pops in your path. You decide to go right of it, so you throw the boat over to the right side chine combined with a few pivoting paddle strokes, to quickly dodge the rock. Immediately after your evasive maneuver, you throw the boat back over to the left chine, and toward your river-left eddy. That's steering with your hips. So by combining pivot and turn strokes with hip steering, you will have better and more precise control over your direction, turning, and maneuvers, and also you avoid having to do frantic, momentum-harming paddle strokes.

Timing.

As you paddle more difficult whitewater, timing does become everything. There is too much to explain here, its kind of easier learned through experience, rather than teaching. But, I'll list some of the important applications to think about. First of all, when I talk about timing, I mean the timing of your paddle strokes.

Timing for eddies: Don't just paddle like a robot right into an eddy, wait before your last couple of strokes, and then kick them in at the right time. That right timing controls the amount of turning you do and when you do it, which is the difference between bringing you in perfectly, and smacking that upstream rock.

Timing for boofs: Wait and pull on that paddle at just the right time if you want a good boof. When you lean forward to take a hard forward stroke, you are weighting the bow and it actually drops down a bit. This is normal. At the time when you are pulling your stroke back, combined with throwing your upper body back, is when the bow is actually lifted and the stern is dropped. So timing of the boof stroke is crucial. Don't wait until the bow of your boat is already over the edge of the water or rock, that will just drive you down when you go to lean forward for your stroke. Plant that paddle in the water as soon as the tip of your boat is even with the edge of your launching platform. Pull too early . . . and you'll be taking a bow dive while your getting ready for your next stroke. Pull too late . . . and, well, you miss your boof, and also take a bow dive. More on boofs below.

Timing for water tongues: Water moves fastest right at the green water of a tongue then it does before and after that tongue. You want to hook into that fast green water so that you

can pull yourself through the hole or wave immediately at the bottom of that tongue. That pull not only allows you to power your way through the water obstruction, but also allows you to keep your boat pointing straight during and after your break through. If you just paddle at a systematic pace as you approach a drop with a tongue of water, then you might miss tapping into the green water between your systematic strokes.

Timing for waves: Whether its big standing waves, holes, or small wave trains, they all affect the direction and speed of your boat. Your correctly timed paddle strokes can counteract that effect. Sometimes it's not noticeable, but whenever you hit a wave or go over a wave, it slows you down. Then you have to build your momentum again. And if there are many waves, your constantly working to build your speed again. And most waves pivot your boat slightly, big waves can turn you completely. Many waves push you off your line. Again, then you would unfortunately follow with a stroke or two or three to put you back on course. But that's a waist of energy, and literally a waist of time. You could have been using those strokes for something else more important, like bracing, or a strong forward stroke, or a planned maneuvering stroke. And it would have been much better if you had remained on your line from the beginning. So how do you prevent all this foul-play caused by waves and other water features? Plant your strokes at the right time. If you pull on a forward stroke right as a small wave hits your bow, you'll retain your speed. You've counteracted the slowing effect of the wave with the accelerating effect of your stroke. If you're between strokes when the wave hits your bow, then you've lost speed.
To prevent a larger wave from pivoting your boat, you need to wait, and plant your paddle at the base of the wave, then pull yourself up and over it. That keeps you on line, and in direction. If you were between strokes as you ride up the face, then the wave could slow you down and push your bow off to the side, pivoting your boat by, say, 35 to 50 degrees. Then before you can recover, the next wave spins you even more, and the next thing you know you're paddling right into the river-right rocky bank, or just into the river-right rock. Happens all the time. When going through small or medium waves, its best to approach them at a slight angle, about 20 degrees, combined with tilting your boat onto the same side of that of your angle. Angling and tilting your boat helps to stay dry and to lessen the slowing effect of the wave. Here is more, in most cases, it's better to have that angle toward your on-side. That way, when a wave attempts to pivot your bow, it will push it toward your on-side. And if your forward strokes are correctly timed, the turning affect of a forward stroke will counter the pivoting effect of the wave, and you'll stay moving in the same direction. If you're always timing out your strokes as you paddle through large waves or wave trains, then you can keep your speed and your direction with no recovery.

Timing to help you turn and pivot: Use waves to help you turn, and know the right time to pivot when paddling through waves.
Just as the face of a wave can turn your boat when you don't want it to, you can use it to turn your boat when you do want to. Time out your eddy turn so that your bow is turning on the face of a wave, then that wave will turn you with greater ease and speed. Otherwise, if you try to turn in the trough before the wave, the wave can actually mess your turn up if it encounters your beam or especially your stern. An additional note

though, for this wave turning to work, you have to initiate the turn and get the bow angled in the right direction before encountering the face of the wave. Then the wave will help you the rest of the way. You can't pivot from one side to the other, or even from center to one side, while on the face of the wave. You'll see why next.
Besides turning into eddies, if you need to pivot to change direction when your in waves or approaching a wave, the timing of your pivoting makes a big difference. If your pivoting your boat, from one side to the other, in the trough before a wave, your bow will encounter the wave during the pivot. If the wave is small, it will make the pivoting difficult, and you'll have to add in a few more frantic pivoting strokes to make it happen. If the wave is larger, it will stop your pivot completely, just like a person putting his foot in the path of a swinging door. But, if you time out your pivot, so that you're at the crest of the wave when you do it, you'll pivot extremely easily. This is because not only is there nothing in the way of your bow or stern, but also because your bow and stern are out of the water, eliminating the friction of the water. The previous couple of paragraphs on "Timing to help you turn and pivot" are extremely important in helping you attain those difficult eddies and micro-eddies in hairy whitewater.

Be aggressive.

Speed

When approaching difficult drops, and when paddling through them, you want to paddle hard and fast! Speed, speed, speed, power. Keep that momentum up. Build your speed before the drop, maintain it through-out. You often only have a few seconds of good time to build speed before the drop. Here are some of the ways to build speed successfully in those crucial moments. Get lined up, then start powering. Read the water and put in paddle strokes in the right places and the right time, as mentioned in the "Timing" section. It is also important not to do to many harmful correction strokes while you are trying to build speed, apply those techniques previously mentioned about "Working up front". Stick to mostly forward and cross-forward strokes until you get your momentum. Then after your moving with speed, you can put in a few quick angle adjusting strokes. A note on the type of paddle strokes to use while building and maintaining speed....lean slightly forward and stay in this position. Place the paddle close to the bow, keep the shaft vertical, and end the strokes at mid thigh.
Next, to maintain speed, your line, and your up-right position, match power with power. What I mean by that is when encountering resistant water features, rocks, holes, waves etc, put a hard paddle stoke in at the same time that they encounter your boat. When water or rock offers you resistance by its power, you match it with your own power. This is really important for keeping control and speed.

Holes

When punching holes, keep your paddle in the water! As usual, paddle hard, and time your last stroke to catch the fast water flushing into the hole. Pull hard, and pull yourself through the hole. Next, place a stroke that reaches over the boil line as early as possible. This might involve getting the paddle up high to get it over the boil line fast enough. To sum it up, the stroke in the green water pouring into the hole, and the stroke past the boil line come in very quick succession.
And in general, it's a good thing to always keep your paddle in the water, and always do a stroke. Stroke in the water, in the air, on rocks, in holes.

You all have heard the reminder that “If you are afraid of it, lean in to it”, well here is something good to remember for encountering large stuff head on, “If you are afraid of it, stroke through it”!

Boofing.

Boofing is the action of landing the boat flat, or near flat after launching off of a vertical feature, wether water or rock. Its called a “ Boof” because that’s the sound the boat makes when it lands nicely flat. When you don’t boof, and you land straight on the nose of your boat, it makes a sound like “Oops”. Not really. However, good boofs prevent many bad things from happening, like, pitoning on the rocks below, losing all your precious speed, filling up with water, getting flipped from the sudden stop of motion, and being pulled back into a hole at the base of the vertical feature. Here are the three most important factors for getting a good boof; One, approach the lip with lots of speed, faster than the speed of the water if you can. Two, lean forward and put one last hard paddle stroke planted at the lip of the drop. Three, while pulling on that last stroke, thrust your hips forward, and throw your upper body back to the stern. But make sure to bring your body back to center upon landing as to not have your center of gravity be in a bad position. Those are the three important factors. Now here are a few more things to keep in mind. That last hard boof stroke will always turn the boat to some degree. So as to not boof of too sideways, try to calculate that turning affect into your angle of approach. Its kind of hard to do for a canoer, but if you can turn your boat slightly to your on-side right before your boof stroke at the lip of the drop, then you would be the “Master of multi-timing”. It’s a rare honor given by the river gods after your death. Furthermore, upon landing, instantly reach beyond the boil line and pull the boat out of the sticky water at the bottom of the drop.

Face your work.

There are some exceptions, like in ferrying, but for the most part, face your work. Rotate your upper body towards where you want to go and then reach into that direction to do your strokes. Then bring the boat to your paddle.

Planing.

Planing can be a useful technique to help prevent the bow of the boat from getting caught in weird currents, whirlpools or unwanted eddies. To get the boat planing you need to have speed, and unload the bow. First, you approach the water feature you want to glide over with good momentum. Right as you encounter it, do a strong forward stroke, like a boof stroke, kick the hips forward and lean back as you drive the boat over the undesired feature. The relative speed of the boat versus the current increases suddenly, which makes the boat plane. A few very quick strong strokes keeps the boat planing and drives it over the feature. Here it is crucial to have fast, crisp, short strokes to keep the momentum up.

Staying on top of the water.

It is paramount to stay on top of the water and not get bogged down. This often means driving the boat in curved lines, crossing the grain of the water, and riding on top of long high features in the water. This is where reading the water during a scout really helps.

Look for the micro features in the water, look for the higher water, look for the paths that avoid low areas in the water, and look for ways to quickly travel through low areas without getting caught in them. These are the fast lines, the dry lines, and the non-munchy lines. As soon as your boat is bogged down, or even worse, under water, you have lost speed and direction, and find yourself fighting the water.

Facing upstream, from eddy to eddy.

Friend, Alan Whittern, told me once "In difficult water you should be spending more time facing upstream than downstream." Seemed a little strange at first, but in no time . . . it made complete sense. This is what makes a huge difference between having control in a rapid, and not. Unfortunately it's typical for a canoer to pick a good line down the entire rapid . . . and hope for the best. But what too often happens is, as the boater takes on a little water, or gets thrown off his line, or finds unexpected features in the rapid, things start to get exponentially worse fast. Then that boater really starts to hope. This might work most of the time for class III, and sometimes class IV. But definitely not class V, and not comfortably in class IV. Besides, even if you can get away with it in the easier stuff, you want to train to become better.

In advanced water, a canoer always needs to know where he is going, and be very directive in his paddling. So before you even drop into the rapid, find your first eddy-out near the top of the rapid, or even right before it. Then while you're in that eddy, find your next eddy by looking over your shoulder. And don't leave that eddy until you pick one out. If you cant find one by looking over your shoulder, and you're in the gnar, its time to get out of the boat and take a look. Pick out the next eddy below it too, a "plan B" eddy, just in case you miss the first one. I have even gone so far as to pick a plan "D" eddy when it really mattered. For your first one, pick one out that's not too far below you, the closer the better. Hopefully its right below the next little drop. These eddies are typically tight and harder to get into. That's why you over looked them in the past. But if you look hard, you will see them. Just focus on your next eddy, then go for it. Then do the same eddy choosing over your shoulder again, all the way through the entire rapid. That way you're breaking the rapid up into controlled little steps. You're in control of the whole situation, you're not being taken for a ride. If something goes wrong, it won't build-up. Just dive into your chosen eddy, or into the next eddy down. This is the ultimate way to train for more difficult water, and the only way to paddle in it. And personally, I find it a lot more fun. But as I mentioned before, these mid-rapid eddies are generally not easy to get into, but by practicing all of the previous tips . . . you'll become good at it. Which leads me to my last tip . . .

Constant practice, three or four times a week.

Remember, it is more important to be a master at every move you make, a master at every paddle stroke you use, a master at keeping your lines, than it is to push yourself up

to the next level with sloppiness.
In addition, muscle memory is probably more important than all the skills you can learn. If you want to be paddling difficult whitewater confidently, in any boat, there is just no way around it, paddle at least a few times a week. You need to trick your body into believing that the boat is an extension of itself, so that when you're in your boat . . . your hips and torso know what to do naturally. That way you can use your brain for other things, like all that new stuff you just learned above!

Cheers,
Sammer Elias