

FROM PUT IN TO TAKE OUT - AND EVERYTHING IN BETWEEN

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By Bob Cope

In and out. Up and down. Wet and wild. Eat it. Hole. Harder, faster, slower, backstroke. Put in. Take out. Pillow. The Native Americans did it. The Eskimos did it. John Wesley Powell did it. Olympians do it. It relieves stress. It is exhilarating. It is wet and wild. It has been said that some roll over and do it again and that others have wet dreams. While many have been helped with the creation of Viagra, it will do you absolutely no good with this particular activity. Xanax is a possibility. I am of course talking about Whitewater boating. Yes kayakers, out of necessity roll over and do it again...or else they come out of their boat and swim the rapids. This is not the preferred method of going down a river. And many boaters go to bed the night before a big river run dreaming about the excitement of a big day on the river, the fresh air, the feel of the cool (sometimes cold) water breaking over their head as they negotiate a huge rapid.

In 1869, Major John Wesley Powell, a Civil War veteran who had lost his right arm in the Battle of Shiloh, led the first voyage to explore the Grand Canyon. Until then the canyon appeared on maps of the West as a mysterious void. Streams ran into it and the Colorado River flowed out, but before Powell no one had the scientific curiosity and the courage to go through the canyon. Three of his men left before it was over. Rather than stay with the party they climbed to the rim in hope of reaching a Mormon outpost. They never arrived. Powell concluded they were killed by Indians. On August 29, 1869, Powell's gaunt crew rowed out of the Grand

Canyon into open country 65 miles from the settlement of Las Vegas, Nevada. Powell's feat did not trigger a burst of activity in the Grand Canyon and by 1949, 80 years later, only 100 persons had traversed the Grand Canyon.

"Whitewater boating has been around for quite some time. Independently invented by aboriginal cultures all over the world, before the invention of the wheel and the cocktail party, negotiating rapids was a necessary evil that had to be overcome in order to use rivers as roads. As good roads came along, primitive mankind gleefully ditched their river crafts and bought cars. Before World War II, whitewater boating as a sport was kind of a crank activity, akin to butterfly collecting and amateur Egyptology. During the 50's, some river runners began discovering that people would actually pay money to get wet and scared to death. A new industry was born. Along came the baby boom babies, looking for fun and excitement and, all of a sudden, masochism became really Big Business.

What?! You say, boating is fun. What is all of this Neo-Freudian stuff about masochism anyway? Sounds like a bad attitude to me! Maybe you're right, but when you get into year-around compulsive river-running, 'fun' must be redefined. The idyllic summertime runs with warm water and beautiful women lounging on the rocks (hopefully 'oohing and ahing' your surfing technique, perhaps offering you a sip of wine or a cool beer in some secluded eddy) are few and far between. Mostly it's sitting in a steamy smelly car, cattle truck or bus with other codevolutionists dressed in silly rubber suits, waiting for the snow to quit so you can do the first winter descent of some godforsaken little mountain stream. Or it's cringing as you hear your paddling buddy tell the 'death run in the Suchnsuch River' story for the fifth time this trip. I could go on. Being a whitewater addict is no bed of roses.

Boating is also a good excuse to dress up in ridiculous costumes and engage in bizarre rituals. An anthropologist from Borneo would have a field day analyzing whitewater boating as a quasi-religious death cult. Admittedly we do have an esoteric language, holy documents, high priests and priestesses, a rigid caste system, ritualized behavior and occasional human sacrifice.”¹

But before you can truly understand and enjoy whitewater boating you need to know a little about the language, the classifications of rivers, the types of boats and the dress.

One must learn an entire new glossary, terminology and slang to truly appreciate whitewater boating. Such as,

Boulder - an extra big rock, VW size and up.

Boulder Garden - a rapid or shoal ornamented with lots of boulders.

CFS - cubic feet per second. Refers to the volume of water passing an established point of reference. Determined by taking depth readings across the river and calculating a two dimensional plane of reference. By applying water velocity readings to this plane, cfs is calculated. For example, a reading with 10,000 cfs means every second, 10,000 cubic feet of water passes the gauging point. There are 7.48 gallons for every cubic foot of water.

Drop - any vertical change in the riverbed that is perpendicular. Drops greater than six feet high are usually referred to as “falls” or “waterfall”.

Eat it - to fall over or take a nasty swim. Variations include body-surfed, chewed, creamed, crunched, douched, eaten, mangled, mashed, munched, mutilated,

¹ Nealy, William. **Whitewater Home Companion, Southeastern Rivers**. Dolly Ridge Press, Inc., 1981

spewed, stuffed, thrashed, trashed, whipped, etc.

Eddy - relatively quiet spots found on the downstream side of rocks, pilings, rock formations, etc. In rapids, eddies are the boater's sanctuary. On flood-stage rivers, eddies can become whirlpools or bizarre boat traps.

Entrapment - this is getting stuck in or out of your boat in fast moving water. A very serious, life-threatening situation requiring an immediate well-executed rescue. A boat entrapment happens when the boat pins and the deck collapses, trapping the paddler in the boat. Even if the boat doesn't actually fold, the force of the water striking the paddler can prevent the paddler from getting out of the boat. In either case, immediate rescue is necessary to prevent drowning and/or hypothermia.

Foot entrapments occur when the victim gets his/her foot caught in a crack or between two rocks. The force of the current holds the body under and drowning occurs quickly. The best way to avoid foot entrapment is by keeping your feet on the surface of the water pointed downstream when swimming a rapid. Never attempt to wade across a fast current or drag your feet across the bottom when trying to stand up in moving water.

Gradient - refers to the steepness of the river bed and expressed as the number of feet per mile the river drops. A river with a 15 feet per mile average gradient would be considered to have a mild gradient. One with a 75 feet per mile gradient would be a fairly steep river.

Hydraulic - AKA hole, sousehole, vertical eddy, reversal. Caused by water flowing over an obstacle, such as a rock, ledge, dam, etc., and creating a reversal current.

Hydraulics come in a variety of shapes and sizes but the mechanism is always the same: the velocity of the water passing over the obstruction is far greater than the water velocity below the hole, creating a region of surplus water with nowhere to go. Via friction, this surplus water is pulled/pushed back upstream becoming aerated where the flows interface. At this point, a boat or person would be sucked under and begin to get recirculated. Unless the person dives deep into the water still flowing downstream where he would be flushed out, or can swim to the side of the hole, or is rescued by another boater, he will remain in the hole. This is called a keeper hole.

Pool - any relatively calm stretch of water just below a rapid.

Put in - wherever you begin a river trip.

Take out - the place where the trip ends and you get out of the boats.

Shuttle - what you do before and after the river trip. This involves putting a vehicle of some description at the takeout so you can get back to the vehicle you left at the put in.

Strainer - any obstacle in the river that allows water to pass through, but not boats and people. Fallen trees, logs, river debris, chunks of metal, old automobile bodies, junked refrigerators, etc. are extremely dangerous if they lie in fast moving water. Always give strainers a wide berth. If you ever do get washed into a strainer, lean **DOWNSTREAM**, into or onto the obstacle. This gives you the opportunity to climb onto it if you can't get clear. It will also prevent you from flipping the boat which will happen if you lean upstream, the natural tendency.

Surf - to ride a wave on its upstream face or to get stuck in a hole intentionally (or unintentionally). Surfing is a source of endless amusement for most boaters, open and decked. On real crowded rivers such as the Ocoee River (Tennessee), the overenthusiastic surfer will usually end up getting run over repeatedly by rafts. Hole surfing is easier than wave surfing because once you get in the hole, the water does all the work. The problem with hole surfing is getting out without getting munched. To avoid shoulder dislocations from high bracing in holes, learn to surf holes on a low brace - it's less tiring too. Celebrations of successful surfing are usually in the form of high-paddle fives.

Undercut Rock - any rock, boulder or rock formations that have been eroded just beneath the surface of the water. Radical undercutting results in a mushroom-like formation, with the bottom of the cap just below the surface of the water. Extremely dangerous for paddlers, undercut rocks are frequently jammed with logs and other river debris, creating particularly nasty strainers. Sandstone is highly susceptible to radical undercutting, thus rivers such as the Gauley in West Virginia, which cuts through sandstone beds, are chock full of undercut rocks. Undercut ledges are caused by erosion of the softer rock underlying the harder cap rock, creating a cave-like formation. Often a double hydraulic forms if the undercutting is drastic enough. The Chattooga River's "Sock-Em-Dog" rapid (We will get into naming rapids later.), in Georgia has a similar configuration - it is bad medicine!!

Wave - a wave is the result of gravity, mass and water velocity. A wave is the direct expression of a river's energy. Waves come in a variety of shapes, sizes and

forms; they commonly range in size from six inches to eight feet. Giant waves are a super high-volume phenomenon and, if you can believe the stories, get as high as 15 to 20 feet. There are Standing Waves which are stationary waves in sets of two or more. Real big standing waves are called haystacks. And there are Breaking Waves, also known as a “wave holes”. They look like a giant, violent hole and can stop a boat or raft. A breaking wave will almost never recirculate you. Lateral Waves are a diagonal breaking wave usually caused by an obstruction just downstream. They are always violent and tricky. They break on top of you and knock you sideways. They are notorious raft flippers. Riffles are found in the entrance sections of many rapids, where the river constricts and gains energy. Riffles are low and rounded, giving a roller coaster ride. Tail waves are a series of standing waves below rapids that begin large and taper out to nothing. They are usually good for surfing and playing. Diagonal Waves are a medium to high water phenomenon usually found at the tops of rapids and on sharp curves in the river. They look pretty harmless but a big one can easily flip a raft.

Rapid rating system refers to the increasing difficulty of rapids based on the volume of water, size of hole, amount of maneuvering required to negotiate the rapid, and/or the technical difficulty of the rapid. Some rapids become washed out at high water and consequently get easier as the water rises. Some rapids get harder as the water level drops, resulting in a more technical rapid. Overall river ratings give the average difficulty of the river taken as a whole. A river with 20 Class III's and one Class V would be designated as having an overall difficulty of Class III_v.

The rating system is:

Class I- Easy; small regular waves, clear passages, no maneuvering necessary.

Class II - Slightly difficult; small drops, clear passages and no maneuvering necessary.

Class III - Difficult; numerous and irregular waves, narrow passages, significant drops.

Requires maneuvering. Scouting advisable.

Class IV - Very difficult; large irregular waves, crosscurrents, big drops, fast and powerful water. Requires precise maneuvering. Scouting mandatory.

Class V - Extremely difficult; Class IV²! Huge irregular waves, fast and powerful current, violent holes and crosscurrents, heavily obstructed riverbed, big drops. Precise maneuvering is a matter of survival. Scouting mandatory!!.

Class VI - Ultimate limit of navigability; Class V³! Danger of loss of life. Might possibly be run by a team of experts using all possible safety precautions.

There are several means of going down a river from the put in to the take out, such as,

Canoe - AKA open boat - Everyone knows what a canoe is. They may not know that canoes can run virtually anything a raft or decked boat can, in the hands of an expert canoeist. A variety of hull designs and materials are available.

Kayak - AKA yak or K-1 - Without a doubt the most versatile, dynamic and enjoyable river craft of all, if you know how to roll it and don't mind banging your head on rocks while in the inverted position, flailing your paddle around trying to roll the boat to it's correct upright position.

Raft - AKA rubber bus - An inflatable rubber boat used mostly by commercial outfitters and capable of carrying four to twenty rafters down the river. Can be oar-powered, paddle-powered or motor-powered. The larger rafts have cross tubes

for added stability and to provide places for the rafters to sit. There are self-bailing rafts and people-bailing rafts. Self-bailing are by far more enjoyable as slits in the floor of the raft allow any water taken on while running a rapid to drain naturally back to the river. With people-bailing rafts the floor of the raft has no openings. Therefore, the only way to get the water out is to use 5-gallon buckets and a lot physical energy. The buckets also come in handy for water fights.

Dory - Oar-powered wooden boat with a capacity to carry two to four people including the guide. They have tapered, peaked sterns which served equally well as bows, and their exceptionally broad flat bottoms and high flared sides would presumably prevent them from turning over.

Now you are ready to run a river. My initiation into whitewater boating took me to the small town of Thurmond, West Virginia.

In contrast to Las Vegas and the Grand Canyon, Thurmond is a sleepy little town with a population of about 8, tucked back into the hills of West Virginia. The amount of land area is about 0.164 square kilometers. It is 280 statute miles (as the crow flies), to Washington DC and 65 statute miles to the state capital, Charleston. The city tree is the Oak and the city bird is the Pileated Woodpecker.

“In the mid-1800's, many changes were taking place throughout the United States due to the industrial revolution. The steam engine brought the boom of railroads, and the demand for iron created blast furnaces throughout the East. The rapid increase in industry created two needs - a way to transport goods and materials, and a reliable source of fuel. New River Gorge provided both of these - a path for the railroads and a steady supply of coal.

Captain William D. Thurmond came to this area in 1873 to survey a parcel of land. As payment for his work, he was given seventy-three acres of land along the New River. With most of the land on the flanks of a steep hillside, it didn't appear to be a very promising piece of property. But another event that occurred in 1873 was destined to shape the future of Thurmond - the completion of the main line of the Chesapeake & Ohio Railroad through the New River Gorge.

Prosperity did not come immediately to Captain Thurmond's property. However, as more coal mines opened throughout the area, the town began to boom. A passenger depot, freight station, and engine house were constructed; along with water tanks, coal and sand towers. Houses sprung up and dotted the hillside. A hotel, bank, meatpacking plant, department store, drug store, and several restaurants and boarding houses soon took their places in this busy little town. This unlikely bend in the New River became the center of one of the major rail lines in the eastern United States.

During its boom years in the first two decades of the 1900's, Thurmond handled twice as much freight as Richmond, Virginia and Cincinnati, Ohio combined. Travelers could catch one of the fourteen passenger trains that came through Thurmond each day. Over one hundred people in Thurmond worked directly for the railroad as laborers, machinists, brakemen, engineers, dispatchers, and baggage handlers. Many others served the town as bankers, druggists, cobblers, clerks, and waitresses.

By the 1930's, however, business in Thurmond was slowing down. The depression had its grip on the entire country. Trains still rumbled through, but not nearly as often. Business picked up during World War II, but Thurmond's grand days were coming to an end - an end brought

about by diesels. But eventually diesel engines replaced steam locomotives, and the once bustling town of Thurmond was no longer an essential stop.”²

“At one time between 400 and 500 people lived in Thurmond. “Thurmond is now a part of the New River Gorge National River System.”³

About 40 years later, in the 1970's, Jon Dragan and his two younger brothers, Chris and “Slick” (That’s all I ever knew him as.) pulled an old pick-up truck onto the banks of the New River, just upstream of Thurmond, now pretty much a ghost town. They unloaded a small rubber raft and proceeded to inflate it with a manual pump. Equipped with paddles, life jackets and a sense of determination, maybe even craziness, they launched the raft and climbed inside to head down the New River. Having scouted the rapids from the bank, what was ahead was no real surprise. But there is a difference in viewing a rapid from the bank and viewing it from a raft which is about to get thrashed by the many waves, holes and hydraulics. After many trial runs and honing their river navigation skills, Jon Dragan decided it was time to start a new adventure. He purchased land in Thurmond on the banks of the New River to serve as base camp and put in point, as well as a partial of land 13.5 miles down river at Fayette Station to serve as the take out. He also purchased a small partial of land eight miles down river from base camp to serve as a lunch stop. Wildwater Expeditions Unlimited, Inc. was born and it would have a far reaching and long lasting impact on the region.

The New River, which believe it or not, actually flows North, is an old, old river. Exactly how old it really is seems to be a matter of dispute. Some say it is the oldest river in North

²<http://www.nps.gov/neri/thurmond.htm>

³<http://www.pe.net/~rksnow/wvcountythurmond.htm>

America, predating the tectonic plate collision (kind of a geological fender bender) that formed the Appalachian Mountains. Known as the “Grand Canyon of the East”, the New River Gorge is an incredible run for paddlers who are used to small, steep, low-volume rivers. At certain levels the river is huge and there are some honest-to-god six and seven foot waves. The river run is about 13.5 miles and has a surprisingly mild gradient (12 - 15 feet per mile). Combine this with the high volume and constricted riverbed and you have some classic whitewater in the gorge. The rapids are Class III, IV and V, but most are fairly straight forward and not too difficult at medium levels. As long as you don’t get woofed by a mega-hole or get stuffed under a rock, the rapids are pretty forgiving. If you really want an adventure, the best time to run the river is in the Spring when the level is above the medium level.

It is not unusual for the major rapids to be named. The name quickly spreads throughout the “river rat” community and usually sticks until someone comes up with something more unique. There is usually something significant that causes a rapid to have a particular name. For example, “Greyhound Bus Stopper” on the New River got its name because of a gigantic keeper hole that would stop a greyhound bus. It is awesome! Upper Keeney, Middle Keeney and Lower Keeney, also on the New River got their name due to their close proximity to Keeney Creek which discharges into the New. Names give paddlers a way of identifying a particular rapid when they are bragging about how good of a run they made at Lower Keeney, or how they got mashed at Greyhound Bus Stopper.

My first adventure with Jon Dragan, Chris and “Slick” was the Spring of 1979 when I had signed up for my first whitewater raft trip down the New River. The night before the trip I did not have any wet dreams about my first whitewater trip. Hell, I couldn’t even get to sleep

thinking about everything I had been told about the New. Big water! Would I fall out of the raft? Would I drown? So by the crack of dawn we were on the foggy river bank in Thurmond, in standard river running attire (wool socks, tennis shoes, wool pants, wool sweater, wool stocking cap and rain gear) eating doughnuts and drinking coffee. Jon gave the required safety/information lecture. Keep life jackets on at all times. What to do if you fall out of the boat. How to get back into the boat. How to grab the safety rope if you are in the water and it is thrown to you. The various paddle strokes - all forward, all back, left side forward/right side back, all stop, back paddle, etc. No alcohol or drugs on the river or you will be put out on the bank. Proper securing of dry bags to carry personal items. If you smoke don't throw the butts in the river - put them in your sock and throw them away when you get back to base camp.

Having completed the lecture, Jon bellowed out 'We are burning daylight'! It was time to man the rafts, but only after first rinsing your shoes off so mud is not tracked into the rafts. Jon is very particular. After a few practice strokes to make sure everyone in the eight-man raft could paddle in unison and follow the raft guides commands, we started drifting down river. After a few hundred yards, the old Thurmond Bank comes into view. No longer operating as the thriving bank it was in the 1920's, it had reopened as The Bankers Club, a restaurant/bunk house for the limited number of boaters that were starting to frequent the New River.

Then "Surprise" the first rapid, a Class III which at first glance looks very innocent. But, surprise, it is not innocent. After a few correction strokes, left side forward/right side back, all forward hard, we were thrust into a wave-hole combo which threw cold water over the front of the raft and pitched the back up in the air like a bucking bronco, up and down, up and down. Because we had been instructed on the proper brace position and told that as long as you were

paddling, the force of the water against the paddle would keep you in the raft, no one fell out. Thoroughly drenched and initiated into the world of whitewater rafting we continued on down river. Now we are really having fun.

Without a little river lore, rafting would not be the same. And river guides are notorious for their tales. There is an abandoned coal tippie, nestled among the trees of the hillside, abandoned from the coal-booming days. On the side facing the river there is a hole in the wall which resembles the shape of a human figure. The story goes that the wife of one of the coal miners got worried when her husband did not show up on time for supper. After all, accidents were common in the mines. So she set out to try to find him. On entering the tippie, she was shocked to find her husband with one of the female clerks who worked in the company store. They were not eating supper. In and out. Up and down. Wet and wild. Now you can let your minds wander. At any rate, as you can imagine, the wife was outraged. The couple jumped up from their horizontal position. The wife grabbed a shotgun which was standing in the doorway and blasted her husband with such force that it knocked him through the wall of the tippie leaving a hole the shape of his body. The damsel in distress went scampering off into the woods never to be seen again. So much for river story telling.

Drifting down river through the pools and enjoying the scenery, and the ruins of the company store, bunk houses, homes, mansions and coke ovens, we quickly come upon "Upper Railroad" and "Lower Railroad", two Class IV rapids which have big holes and a long series of big waves and breakers. These rapids are appropriately named because there is an active railroad trestle which spans the river. A successful run of these two rapids requires all paddlers to execute strokes on command and catch the eddy after "Upper Railroad" so the rafts can be bailed out.

Missing the eddy would spell disaster. Running "Lower Railroad" with a raft full of water and hence without any ability to steer away from trouble is not a pleasant thought. Therefore, at the top of "Upper Railroad" the adrenalin starts to flow. "All ahead full, left side forward, right side back, all ahead full, harder, we have to catch the eddy. Successfully in the eddy and out of breath we bail out the rafts. Then it's back into the current again. All ahead forward, hard, in order to cross the eddy line, the point where the swift current meets the still water of the eddy. Back into the current, and after paddling hard to negotiate our way around rocks and boat-keeper holes we successfully run "Lower Railroad".

At last, lunch time at Jon's private outdoor deli, with food being provided, and prepared by the guides. But first a few instructions from Jon. Life jackets may be removed while on shore. Do not throw cigarette butts on the ground; carry them with you and throw them away when you get back to base camp. And most importantly, if you have to use the restroom, its pants down and skirts up, obviously implying that the men hike downriver and the women hike upriver to use the most private tree to hide behind. Lunch is an abundant supply of deli meats and cheeses, crackers, peanut butter, raisins, bug juice, water, Oreo and fig newton cookies. It has to be kept simple since everything is packed in water tight bags and space is at a premium.

After a restful hour of eating lunch and socializing with other rafters in our party from Pennsylvania, Virginia and West Virginia it is time to get back on the river. After all, we are "burning daylight". The best is yet to come. A series of five Class II to III rapids, "Upper Keeney" (Class III), "Middle Keeney" (Class IV), "Lower Keeney" (Class IV), "Double Z" (Class IV), "Grayhound Bus Stopper" (Class III), "Upper and Lower Kaymoor" (Class III), "Undercut Rock" (Class IV) and lastly "Fayette Station" (Class IV). It is a wild afternoon with plenty of big

water. The take out property at Fayette Station is owned by Wildwater Expeditions and has been improved to facilitate taking the rafts out of the water, an all participant activity, and placing them on flat bed trucks. Only after the rafts are loaded does Jon announce that there is ice cold beer and pretzels on the bus. Soaking wet, with beer in one hand, pretzels in the other, and day dreaming about the successful day we had on the New River, we start the half hour drive back to base camp, where we change into dry clothes in the parking lot.

Whitewater boating has changed much since 1980. There are numerous outfitters and whitewater enthusiasts. The attire is more high-tech, helmets are required on most rivers, paddlers are going over falls on a routine basis, base camps have hot and cold showers and changing facilities, motels and restaurants have sprung up in river communities, rivers have been designated scenic to protect them from Corps of Engineers projects. Wildwater Expeditions Unlimited is no longer in business having been sold to the National Park Service for use as a recreational area and at a handsome profit for Jon, Chris and "Slick" Dragan. But no matter how you look at it, from put in to take out and everything in between, whitewater boating is in and out, up and down, wet and wild. Kayakers continue to roll over and do it again, canoers continue to stroke, and rafters continue to have wet dreams.