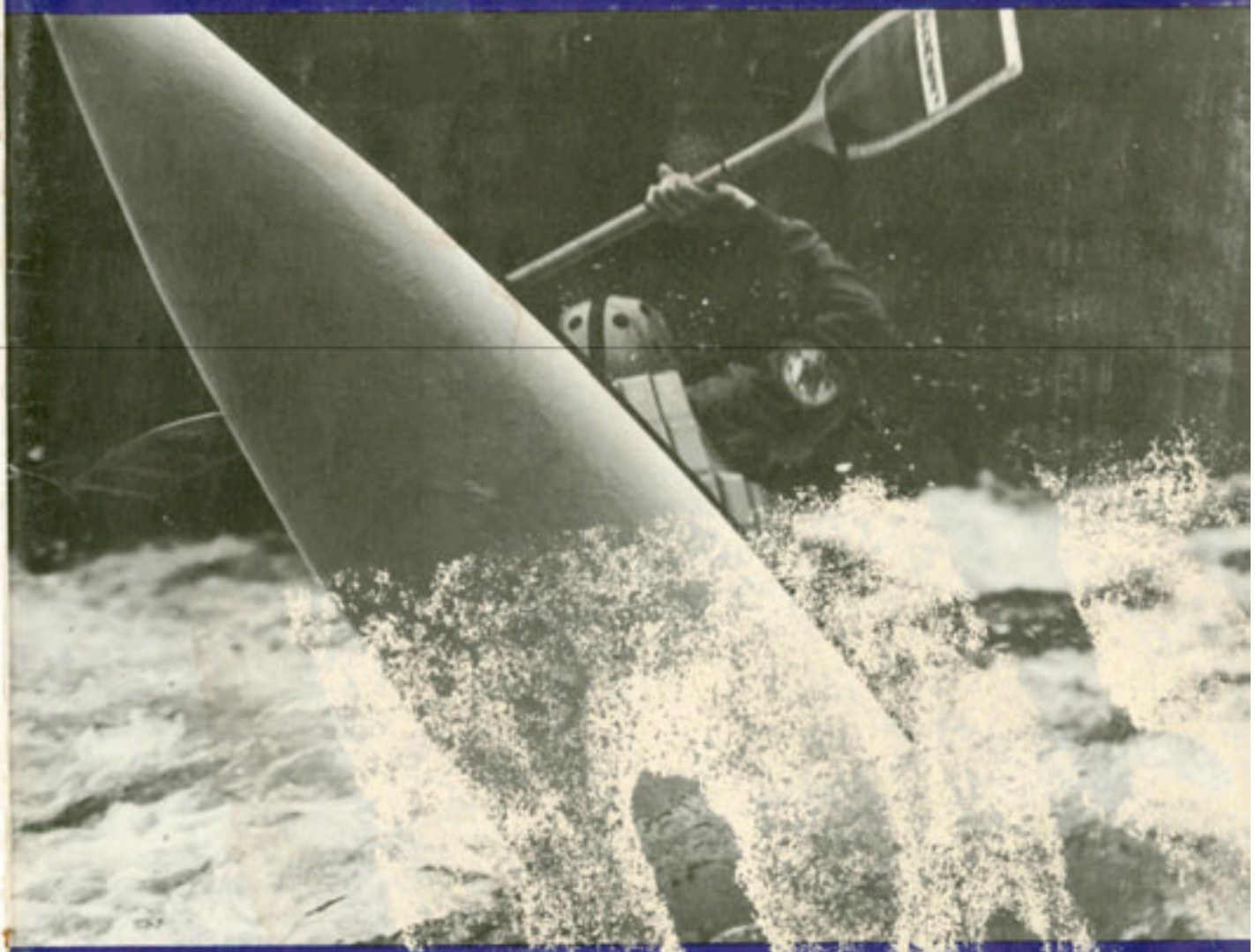
American

WHITEWATER

the Journal of the American Whitewater Affiliation



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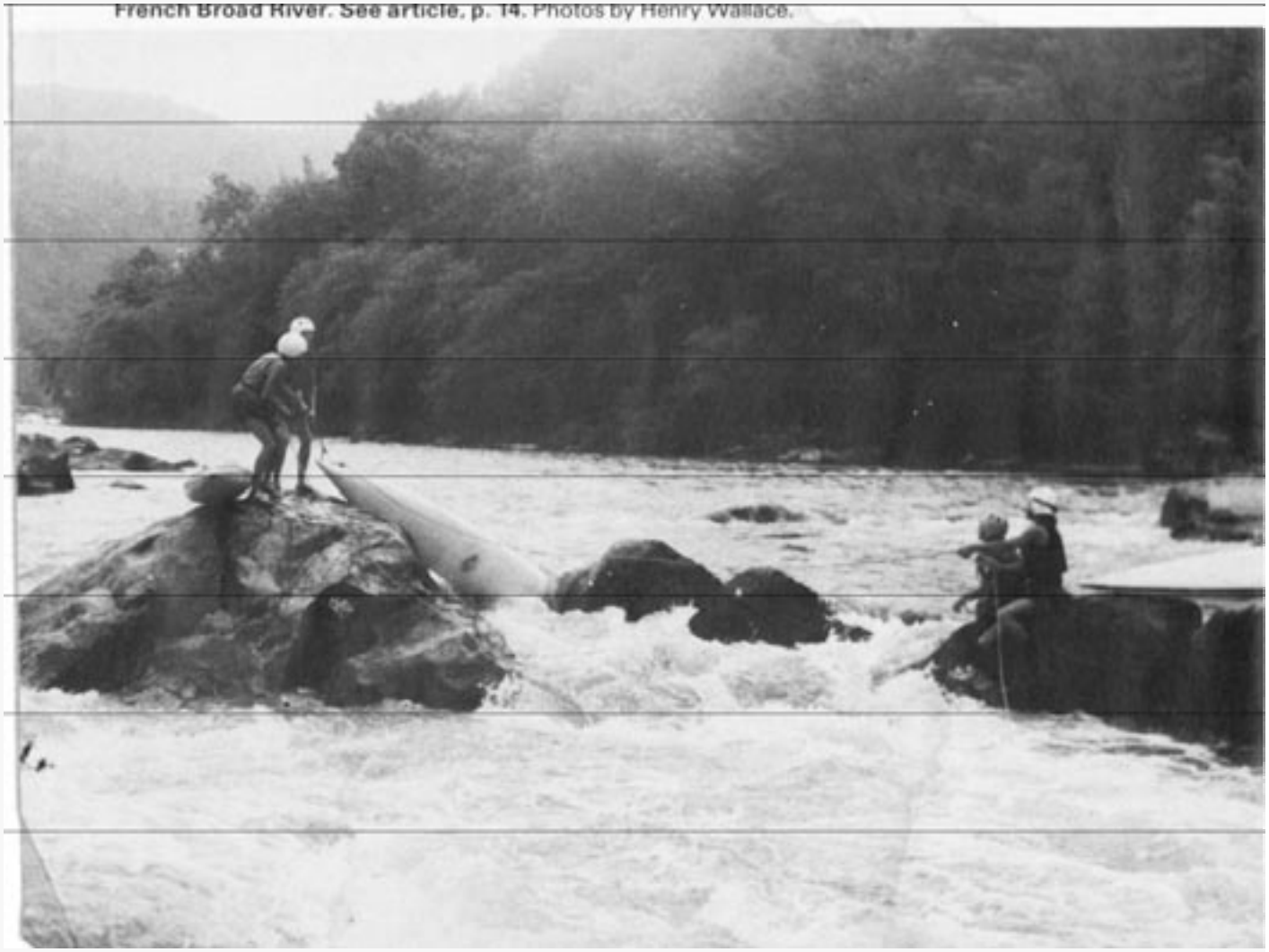
French Broad River. See article, p. 14. Photos by Henry Wallace.



American WHITEWATER

Sponsored by The American Whitewater Affiliation

JAN/FEB Vol. XXI, No. 1

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Editorial Chairman and Editor: Iris Sindelar, P.O. Box 321, Concord. NH 03301
Southeast Regional Editor: Margaret O. Tucker. 2618 Defoors Ferry Rd., N. W., Atlanta, GA 30318
Midwest Regional Editor: Gary E. Myers, 28 W 136 Hillview Dr.. Route 1, Naperville, IL 60540
Editorial Committee: Margaret Tucker, Ed Alexander, O. K. Goodwin, Richard Treat, Geo. Larsen. Ray Gabler, Gary E. Myers. Kerry Heidenis.
Business Manager: Richard Treat. 210 Easy Stt.. No. 7. Mountain View CA 94043
Circulation Manager: Kerry Heidenis. 28 Eaton Dr.. Wallingford. CT 06492
Membership Chairman; Surfing Reporter: Geo. Larsen, Box 1584, San Bruno. CA 94066
Midwest Membership Chairman: Fred Dietz. 1590 Sleepy Hollow. Coshocton. OH 43812
Advertising Dept.: Rist Bonnefond. 10 Pond St.. Wakefield, RI 02879; Scott Price. 401 Riverside Dr., Covington, KY 41011
Conservation Chairman: Robert Lantz, Sunhright. TN 37872
Safety Chairman: O. K. Goodwin. 1240 Moyer Rd.. Newport News. VA 23602
Racing Editor: Ray Gabler, 10 Boulder Rd.. Lexington. MA 02173
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Send membership subscription payments. changes of address, non-receipt of copies to Circulation manager, Kerry Heidenis, 28 Eaton Dr., Wallingford, CT 06492
Send request for advertising information to your nearest AWA Advertising Representative.
Send advertising copy and proofs to the Editor, Iris Sindelar.
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The Staff and committee members listed above are unpaid Whitewater enthusiasts who volunteer their time and efforts to bring affiliate/member subscribers this journal. Your contribution of articles. letters, race results and scheduler, photos and drawings are essential for their continued efforts and the timely publication of the American Whitewater Journal.

COVER: **Nils Finne of Providence, RI plays a hole at Tariffville after heavy autumn rains bring the river up to spring level.**

Letters from Readers

Gentlemen:

In response to your article "Fatal Accident at the Icebreaker Slalom": I had the pleasure of knowing Gene Bernardin for a few short months. I took my class I whitewater instruction on the Housatonic River at Gaylordsville, Conn. 8-1 & 2-75 under the able leadership of Earl Potts. One of the instructors was Gene Bernardin.

Before getting into our canoes, Earl gave a complete lecture on what to do in whitewater and what safety measures should be taken in the event of capsize. He then had the instructors demonstrate what had been discussed. One of these safety factors, in the event of capsize, was the necessity of going down the river feet first with your legs up near the surface of the water, kicking, and the head back so that you were just able to see over your life jacket. It was explained that by keeping our legs up and kicking out, we would be able to fend our bodies away from rocks which could cause injury. This was practiced by everyone including the instructors. In fact it was such a terrifically hot weekend that this type of riding the river was a pleasant way of cooling off. Gene, being such a fun loving guy, did this possibly more than anyone else that weekend.

From the above it is obvious that Gene was well aware and practiced in riding a river after a capsize. The question is, did he have the opportunity of effecting whitewater safety practices or was the suddenness of the capsize and his entrapment so swift that he was unable to effect any of the safety measures he was so well cognizant of?

It is very easy for us, who were not at the scene and not actually involved in the particular situation experienced by Gene, to evaluate what should have been done. The true test is to come through a similar experience safely—and who is to know whether the circumstances have been or will be exactly similar?

Thomas J. McSherry
14 Van Nostrand Ct.
Little Neck, New York, N.Y. 11362

WHITEWATER IS WHERE YOU FIND IT!

Many who read this Journal live near large bodies of water where winds, currents and tides generate challenging and exciting whitewater action, but most whitewater kayakers and canoeists limit themselves to rivers. That's great if you can get to an interesting river whenever you please, but most of us can't, because the drive is too long, the rivers are down, it's too cold, no one wants to go with us, or we have other obligations.

We in the San Francisco Bay area of California are lucky. Within a few minutes drive we can be bouncing on the whitecapped waves of San Francisco Bay, maneuvering the rip tide and surfing waves of Raccoon Straits; perhaps braving the riskier Golden Gate entrance and the violent "Potato Patch." Or, we can take on the pounding surf off the many nearby ocean beaches.

An hour or two of this kind of action can be exciting, it's certainly pleasant and refreshing. The exertion is great for the muscles, joints and reflexes; keeps you "tuned" for the next time on a fast river. Let's hear from the rest of the world. Tell our readers about your non-river whitewater action. Write to Geo. Larsen, AMERICAN WHITEWATER Surfing reporter, Box 1584, San Bruno, Cal 94066

AMERICAN HIMALAYAN KAYAK DESCENT

Personnel: Wick Walker, Eric Evans, Les Bechdel, Al Zob, Jo Knight (M.D.), Tom and Jamie McEwan, Angus Morrison.

A nine-man team will explore the Raidak River within the Kingdom of Bhutan for thirty days during April of 1976. The team will include a doctor and a professional photographer. Carrying supplies and extra equipment in two 4-wheel-drive vehicles, two men will drive and act as a safety link, as seven descend the river by kayak. The parties will maintain contact by FM radio and will make camp together each night. Every attempt will be made to navigate all feasible rapids and to document all aspects of the expedition.

The primary descent will be made from a point about 10 miles from Paro Dzong up the Paro Chu, to the Indian border near Phunchholing—a distance of about 90 miles and 9,000 vertical feet. Additional time will be devoted to exploring accessible portions of other tributaries of the Raidak, particularly the Wong Chu near Thimbu.

Total budget is estimated between $45,000 and $50,000. Contributions are solicited from individuals and companies within the canoeing community.

(For a copy of the complete prospectus, write American Himalayan Kayak Descent, 8907 Richmond Highway, Alexandria, VA 22309. As with any request for information, a self-addressed, stamped envelope would undoubtedly be appreciated.—*Ed.*)

READERS' SOAPBOX

Open Boats in Whitewater

We wish to thank all those who took the time and trouble to send in a reply to Jay Evans' letter in the SEP/OCT issue of AW, which admonished, "Never use an open canoe beyond a Class II rapid!" Unfortunately, we haven't the space to print more than a representative sampling. Jay Evans has since told us that he didn't mean to imply his support of legislation on this question (we're glad to hear it!), so inclusion of letters on that subject would have been pointless. We only hope that those who ARE in favor of such legislation will not also misinterpret his letter and worse, use it to support their arguments. In any case, now that both sides of the question have been aired, let's drop it. A "war" between kayakers and canoeists is the last thing we'd like to see! —Ed.

Editor:

I read with great dismay Jay Evans' letter in the Sep/Oct issue. I find it hard to believe that someone with the reputation of Mr. Evans could seriously question the use of the open boat in whitewater. Has he forgotten that open boats were the first to run the Cheat Canyon, the New River Gorge, and numerous other rivers when closed boats were considered toys?

Rather than issue blanket indictments against a specific type of boat, let us examine the details of that fatal accident, as reported in this magazine. The paddler was a skilled, experienced canoeist, and was familiar with the river. He turned over in a difficult rapid; this could also have happened to a closed boat paddler — they have been known to turn over in Class 4 water. They have also been known to miss a roll and swim the rapid, as did the open boat paddler. The fatality occurred because the paddler caught his foot in a rock and could not dislodge it: this could have happened to anyone swimming the rapid.

A kayakist was killed this spring in another tragic accident in West Virginia. He ran under a fallen tree and was trapped when his deck collapsed on his legs. Trees are a particular danger to kayaks. Are we, then, to suggest that they be banned from rivers with overhanging trees, but should be used only on the race courses for which they were designed?

These accidents are sobering to all of us, and point up the need for greater alertness to the dangers inherent in our sport.

The open canoe is indeed a beautiful and versatile craft. It does have obvious disadvantages in whitewater, all of which can be overcome with skill and determination. The danger involved in swamping has been greatly reduced by the common use of additional flotation. In addition, a well-designed canoe, paddled solo, will rise with the waves and take on surprisingly little water. Maneuverability — well, there are a few turns you can't make in a 17' canoe, but not many. A canoe, in the hands of a skillful paddler, can make just about any maneuver required to run a rapid. I've paddled for 4 years, the last **3** in a kayak, often with open boats. Time and time again, I've been astounded to see an open boat follow me through a particularly tight place and make a clean run.

Hope Gross
Coastal Canoeists

Editor:

[Jay Evans'] letter alluded to two factors—canoe design and maneuverability—as limiting the open canoe's suitability for running whitewater rapids. Modifications (shoe keel, rocker, tumblehome, deeper boats, etc.) and new materials (e.g. ABS Royalex) in recent years have improved both design and maneuverability over that of manufacturers' products of years ago. Also growth of the sport and availability of many fine open canoeing "schools" and training sessions, as well as organized canoe clubs, have resulted in open canoeists with more whitewater skills than would have hardly been dreamt about in years past. (Though not discussed here, safety considerations are implied.) Application of these skills to modern, whitewater-designed open boats has resulted in scores of open boaters here in the Southeast and elsewhere I'm sure, with absolute competence to successfully negotiate Class III water.

. . . Many suppositions and assumptions emerge following a boating tragedy; most get no further, but it all gets back to educate, educate, *educate*—through instruction, public relations and practicing what we preach.

Murray Johnson
Gainesville, GA 30501

To: Jay Evans,
in care of American *Whitewater*

Come on Jay, you know better than that. To say, "Never use an open canoe beyond a Class II rapid," exhibits the same philosophy as, "Never use a kayak beyond a Class IV rapid," "Never climb a mountain with a slope of more than 45 degrees," Never ski the headwall at your local ski area" or "Never drive an 18 wheeler in traffic." The fault is not the equipment or where it is used.

Why do we paddle whitewater, or ski, or climb? Are not we looking for a personal challenge—a sense of personal accomplishment? Is not this sense sharpened by the gamble of a possible swim or loss of a boat? We even expect the possibility of personal injury or worse. We even expect this when we drive our VW or Chevy to the store.

Do not fault the equipment when the problem is the paddler; not the idiot paddler, but the uneducated and inexperienced paddler. It is up to you as Director of Recreational Athletics, me as a whitewater open canoe competitor, every Canoe or Kayak Club, every experienced paddler and every reader of this letter to educate and train the inexperienced. Teach him how to handle his equipment. Teach him to recognize his ability. Teach him the limits of his equipment as a *function* of his *ability*. Teach him how to handle his mistakes. Teach him how to safely and fully enjoy the exhilaration of our sport.

How about changing your statement to, "Never use an open canoe beyond a Class II rapid unless you have the necessary skills." More importantly, let's make those skills available.

Sincerely,
William F. Stearns
Penobscot Paddle
& Chowder Society
Box 121
Stillwater, ME 04489

P.S. I'll match the turning ability of my Lincoln WS against that of a wildwater covered boat and the inherent stability of an open canoe with any covered boat.

P.P.S Gail Cowant, through the American Canoe Association is developing a certification and training program for whitewater canoe instructors. This is a program to learn more about and to actively support.

Editor:

. . . The beginner, the novice and the uninformed boater often encounter problems through sheer ignorance of or total disregard for existing laws—physical laws of hydraulics and energy as well as man-made laws. The only route to safer boating for them is education. But education is not the answer for the "expert" boater. This knowledge has already been gained—knowledge of the

boat, river, paddle techniques, hazards, personal ability and survival.

Sooner or later even an experienced paddler may be headed for disaster. We are on the river for the challenge we face. We isolate the individual hazards and weigh the chances of success or failure. We know that rare elation of personal accomplishment which sometimes over-rides fear of an accident. In today's world, in which a sense of personal accomplishment is so often unavailable in our daily tasks, the challenge of wild water and the opportunity to successfully meet difficult and daring tests of skill enable many of us to live through routine daily frustrations. Knowing my limits and the limits of my boat, I prefer the infinitely more challenging aspects of running an open boat. . .

Lloyd A. Siewers, Pres.
Metacomet Canoe Club
W. Simsbury, CT 06092

Oh-h-h-h Jay, sonny,

Class three and over in an open canoe is what keeps my arteries soft and my tennis shoes pliable.

"Little ole grandmother"
Coastal Canoeists

Editor:

I hope I will never see the quote "Never use an open canoe beyond a Class II rapid" again.

As an open boater with considerable experience, I would differ with the above statement. I have made many runs in the Eastern U.S. on classes I through V water and been active in many open boat wildwater races as well as several national open boat championships.

Jay's rule would completely eliminate all of these races, which have been carried out consistently without fatality.

. . . The open canoe has the advantage of eliminating the "upside-down ride" when swamped and overturned. Also, the open boat paddler is usually quite conservative in scouting rapids and is not as likely to overextend his ability. The open boat man also is able to see the river better [than a kayakerl as he rides higher.

. . . Open boat canoeists are an independent lot. They enjoy the additional challenge of keeping out the water as well as negotiating the rapids. We enjoy our races--even slalom. Please don't propose that we stick to the lakes, swamps and ripples. Let the admirers of the ***voyageurs du nord*** and the disciples of Homer Dodge have their day in the rapids—if the going gets too tough we'll get out the line or pole, or portage.

Edward Hixson
Saranac Lake, NY 12983

Editor:

This refers to Jay Evans' letter of August 5th. I hesitate to write an open letter in reply to Jay as I hold him in such high regard and respect for what he has contributed to kayaking and competition at Dartmouth and through his books. However he now has another letter to Downriver Magazine with much the same approach to a question that he seems to know very little about, either from association or practical experience. This I find surprising as I knew Jay long ago when the late Randy Carter and I gave him his introduction to rivers in his homemade kayak. I am also concerned that the U.S. Coast Guard, which has the entire canoeing sport under close observation, may use Jay's opinions, as ill-founded as they are, as support for some of their approaches to helping make our rivers safe.

I cannot believe that Jay wants this and wish he had more carefully considered this before making such dogmatic statements about what an open canoe can do on water that is neither lake or flatwater river.

For years I have used either a 15' canvas or aluminum canoe on rivers varying in difficulty from the Yough, The Cheat, and north fork of the Potomac to the Pigeon, Nantahala and all sections of the Chattooga, including section four. Of more importance is

our experience at open canoe clinics held each year by Mondamin Wilderness Adventures at Tuxedo, N.C. where we train novice and intermediate canoeists in five- and ten-day schools. By using progressively more difficult rivers we are able to move the students up to rivers like section III of the Chattooga and to the Nantahala.

The Nantahala Outdoor Center at Wesser, N.C. has the same fine experiences in their open boat clinics and week of rivers program. The Georgia Canoe Association, the Carolina Canoe Club and the Canoe Cruisers of Washington, all conduct whitewater programs and I have observed the excellent results they achieve, all of which disproves Jay's theory that the open canoe is "misdesigned" to run whitewater.

Having canoed whitewater rivers with some outstanding closed boat paddlers such as Jamie and Tom McEwan, John Burton, John Sweet and John Berry, among others, I don't believe Jay would find any support for his theories from such men as these who know all aspects of paddling.

Jay has done great things with the kayak both in teaching and writing. Closed boats have added new techniques and new dimensions to paddling. However, it is never wise to tear down one aspect of a sport in praise of another. We need the support of all paddlers just now and I wish that Jay would turn his known talents to the general problems all of paddling faces at this time in making as safe as possible, through widespread education for our new boaters (and some of the old), the sport so many of us have enjoyed for so long. The open canoe can't do everything the closed boats can do. The closed boats can't do everything the open canoes do so well. There is a place for all. Some of us know from experience that open canoes handle amazingly well in really heavy water and are safe when paddled by experienced, trained canoeists.

Accidents do happen and we should learn from each accident, something to add to our teaching. All of us deplored the tragic accident on the Obed, which Jay describes; however, dozens of open canoes have run that rapid. I would remind Jay that three kayakists died in well-publicized accidents in the last two years. All the paddlers were well-known and were intermediate or better. Some of us tried to learn from these accidents. However, we did not suggest that kayaks did not belong in whitewater, or that we needed legislation.

While I avoid the real heavy water now, I have several young friends who would be glad to take Jay through Bull Sluice and on down section four of the Chattooga to give him a better feel for what an open canoe can do. Come on, Jay, get back on the team and let's all work to make canoeing in all its phases the greatest—and all work to make it safe.

Ramone S. Eaton
Senior Vice President, Retired
The American National Red Cross
Silver Springs, FL 32688

STRIPPING OF THE RIVER
or
TVA GIVES A DAM

by Robert B. Lantz,
AWA Conservation Chmn.
Sunbright, Tennessee

The following article introduces AWA's new Conservation Chairman, Bob Lantz of Sunbright, Tennessee. For several years Bob has been a Board member of the Tennessee Scenic Rivers Association, editor of the monthly TSRA newsletter (writing the River Conservation section and, we hear, much of the rest of the newsletter himself), and this year is serving as Vice President of the TSRA Board. Bob is also founder and current Board Chairman of the Blue Hole Canoe Co. We're glad to have him on our team.

The Illinois Paddling Council once printed a statement in their newsletter:

"Free Running Rivers Are Not Free!"

They, of course, were referring to the costs in effort, cash, and time that conservationists must expend just to keep their favorite river from being "Improved." The IPC's observation is true; however, there's hardly any comparison to the counter-point. The cost of a major impoundment just can not be fathomed. "Cost" means value expenditure and, in my opinion, the "value" of a natural river can't be quantized. This is dramatically brought home if you should ever be around during the death-throes of a "free-running" river as it is prepared for impoundment.

This opinion was firmly cemented when I recently had occasion to witness the entombing preparations on a beautiful little, free-flowing stream, the Duck River in Tennessee. I've floated this river during many varying seasons and weather conditions. I remember one bright spring float when the whites of the dogwood blooms were interspersed with the contrasting flowering redbud trees; and both were underscored by purple and blue phlox and violet ground cover. It was a beautiful, bountiful day with small water freshets flowing into the stream from off the limestone bluffs; from under the rich green ferns and mosses at the streamside spring sources; and down the swollen side branches as God renewed his world.

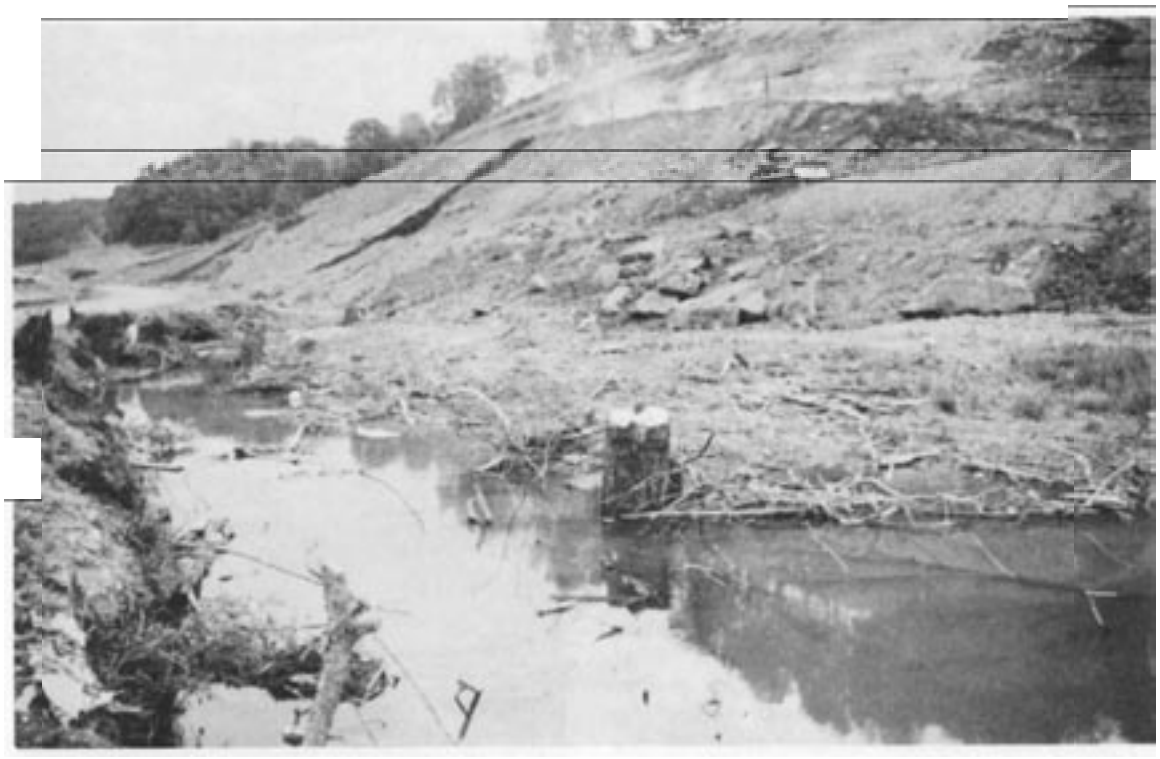
You've never heard of the Duck because it isn't a mainstream river essential to our Nation's commerce and progress (like the Tennessee, Cumberland, or Ohio). It's a tributary to the Tennessee River and up until January 1, 1976, had the distinction of being the longest free-flowing river (280 miles) in this region. But on that date, the Tennessee Valley Authority (TVA) closed Normandy Dam and accelerated their pace on yet a second Duck Dam (at Columbia). By the closing date, it is estimated that TVA spent $35 million on the ***non-power-producing,*** flood control (innundating 16,000 acres to protect

10,000 acres) monument to run-away bureaucracy. We could go on and on about the waste being generated by this project; how TVA was sued—and admitted in Court that they suppressed known data that would have made the project look bad in their Environmental Impact Statement (ie: they lied, deliberately). But, alas, at this writing, the lake is filling. Let's rerun that beautiful spring-time float (on the same section) and see how TVA prepares a river for its demise:

THE DUCK REVISITED

Don Wagner of Tullahoma, Tennessee (bow), Past President of the Duck River Preservation Association; and your writer (stern), of Sunbriaht, Tennessee, pushing off for a downstream examinatio of the present state of the Duck River; Springtime, 1975. Photo by Jim Robertson.

On downstream a little, the river's serene character belies the frantic construction activities occuring just a few bends further on down. Photo by Jim Robertson.



As we approach the confluence of Davidson Branch, we can hear the bulldozers working on up the side draw. They are following the cut of the little creek as they raise the old country road to a new elevation above lake level. Photo by Jim Robertson.

(At left) That's Davidson Branch in the foreground. It didn't used to look like this. The markings on the 'dozer say "US TVA," identifying who the river-killers are (this time.) Photo by Jim Robertson.

And from now on downstream. we are in the "stripped" area of the Duck. They've already removed all vegetation here and we can't even relate this to anything we've seen in the past. Yes, this is still the Duck River. And we've even floated through here before. But now . . . Duck Ditch . . . no hint at all that this is the height of the spring blooming season.

We've arrived at our destination. After climbing a riverside (stripped) bank, we are greeted with a panoramic view of Normandy Dam. A NON-POWER producing concrete plug for what used to be a beautiful spring-time float. **Photo by Jim Robertson.**

KEEP **BUSY!**

Bunny Johns demonstrates surfing technique to decked-boat class on the French Broad River.

THE WEEK OF RIVERS

Photos and text by Henry Wallace. Prospect. KY 40059

I first saw him in the Class III approach, a solitary figure silhouetted against the azure sky, his double paddle flailing the white crests as the current picked up speed before slamming over the first drop of Bull Sluice, a Class V double falls on the legendary Chattooga River.

Straight down the middle he came, his face showing apprehension but no fear as he zeroed in on the spurting rooster tail where jets from right and left converge in an ageless white plume that marks the most negotiable passage through the foamy, spray-filled abyss that is the very maw of the formidable "Bull."

Losing ground as the torrent swept him toward the left, he fought the trend with powerful if inexpert draws and sweeps in a valiant effort to keep his kayak from slithering onto ominous Decapitation Rock. Then he drove over the drop, heading from the South Carolina to the Georgia side of the river, his stern swinging inexorably downstream so that it came over almost simultaneously with his bow.

A last-second attempt at a saving brace wasn't enough and the kayak, its upstream gunwale sucked under, rolled over midst the froth and boils. Moments later boat and boater, separated, cleared the second five-foot drop and washed into the eddy on the Georgia side.

Scrambling out of the water, the kayakist shouldered his boat and began the laborious climb back up over the rocks to a put-in above the approach. Five

minutes later I saw him loom into view again as he barreled down the middle, his face set in determination, his course firmly fixed to enter the upper end of the first hole, thus avoiding his previous mistake of being swept too far to the left. But he over-corrected just before the first falls and plummeted into the hole without that extra speed at the top and that last desperate stroke at the bottom that might have brought a more experienced boater out of what can be a very mean hydraulic.

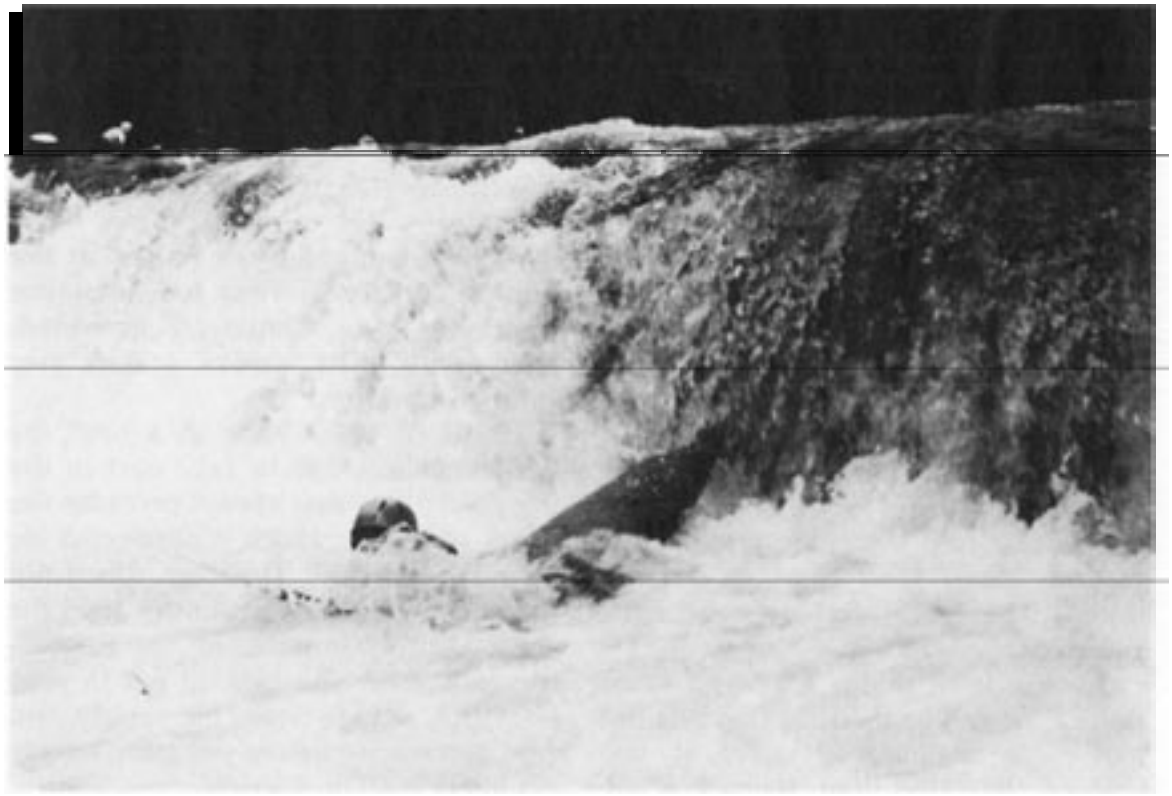
Inevitable the churning water of the stopper turned him broadside and sucked him over. Kayak and kayakist parted company once more and washed into the eddy at the foot of the second plunge.

As he clambered out on the rocks, a bit shaken by his swim, I asked him how long he had been paddling. "Started Friday," he said. This was Monday.

Now Bull Sluice, the climactic grand finale of Section III of the beautiful, wild and challenging Chattooga, isn't so tough at normal levels for experienced boaters, but not many novices care to try it, or should. There have been several drownings there and an authoritative safety adviser and boater, Ervin Jackson, Jr., says of the Sluice in his "River Runners' Guide to the Chattooga," "The best way to run this rapid is over the rocks by foot with your canoe on your head."

But this boater, an investment banker from New York by the name of Warren G. Moore, Jr., wasn't being foolhardy or brash in challenging "The Bull." In fact, it was just what he was expected to do if he felt up to it, for he had something special going for him. What he had was expert advice and instruction in the coaching of Bunny Johns, one of Dixie's finest open and

"Where am I?" Henry Wallace, 13, goes over Second Ledge on the Chattooga as classmates look on.



closed boaters, and Louise Holcombe Nichols, 1972 Olympian.

Like the student and part-time sporting goods salesman from Houston, the chemist from Charleston, the airline stewardess from New Orleans, the high school senior from Florida and the young scuba diver from Kentucky, among others, the intrepid kayakist was a participant in Payson Kennedy's decked-boat Week of Rivers, a cruising-learning clinic that Bunny and Louise shepherded through a half-dozen whitewater streams in easy driving distance of Payson's Outdoor Center on the Nantahala River at Wesser, NC.

The Week of Rivers, held periodically throughout the boating season, is just that—a smorgasbord offering of the area's finest whitewater runs for seven days, Monday through Sunday. Entree for this exciting and instructive week is the easy-going Little Tennessee, and the piece de resistance is boisterous Section IV of the Chattooga for those who feel ready for it and have the blessings of their instructors.

Intermediate rivers such as the Nantahala, the Tuckaseigee, the French Broad and Section III of the Chattooga are sandwiched between the extremes, and the Nolichucky Gorge, wild and challenging, is tossed in for dessert. The itinerary could leave out some of these and include others, depending on water levels and skill at the clinic participants.

At the outset, on the Little Tennessee, a Class II, dam-controlled stream seemingly made for training, Bunny and Louise told the clinic group of 10 eager boaters: "Don't be afraid to try things. The more you swim the more you learn."

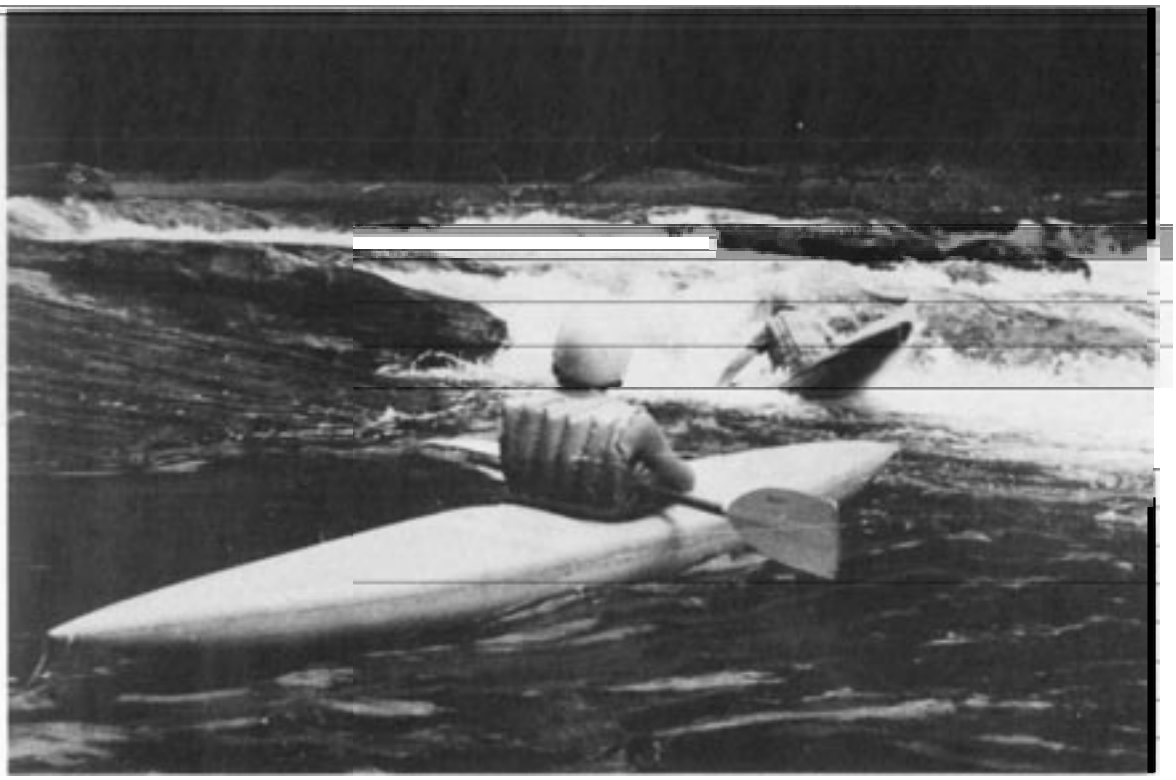
So they tried things a lot and swam quite a bit and by the time they reached the more demanding rivers it was evident that they had learned a lot. Those who flipped up to five times in the Nantahala, an intermediate level river, at week's end took on the notoriously rough Nolichucky, judged suitable only for advanced and expert boaters, where the maximum upset per person was one, and quite a few of those flippers rolled up.

As boaters were evaluated and expertise developed, first through the basics, then in the more advanced techniques, the group was split for a day, with Louise taking three of the clinic members who had had previous experience to Section IV of the Chattooga, while Bunny took the others for a repeat of Section III.

In the Section IV expedition, where several rapids are rated Class V and where Class IV's are commonplace, the youngest member was Henry Wallace , 13, and the eldest was Henry Wallace 60. The former turned in by far the best performance, flipping only once and rolling right up, while his father flipped several times and didn't.

In addition to being shepherded and coached and guarded on the rivers, the group members are housed and fed at the Center's motel and restaurant, and transported to and from the various streams by bus or truck. They bring their own equipment or rent it at the Center, and for rivers at some distance from the base, tents are provided, along with thick steaks grilled over campground fires.

If you've never been in a boat the Center advises you to take part in the weekend clinic that always precedes the Week of Rivers, which is conducted for open boats as well. However, this is not mandatory and if you want to start the week entirely uninitiated the instructors will show you how to get in your boat and, as experience has taught, you won't go too far before you learn how to get out of it all by yourself.

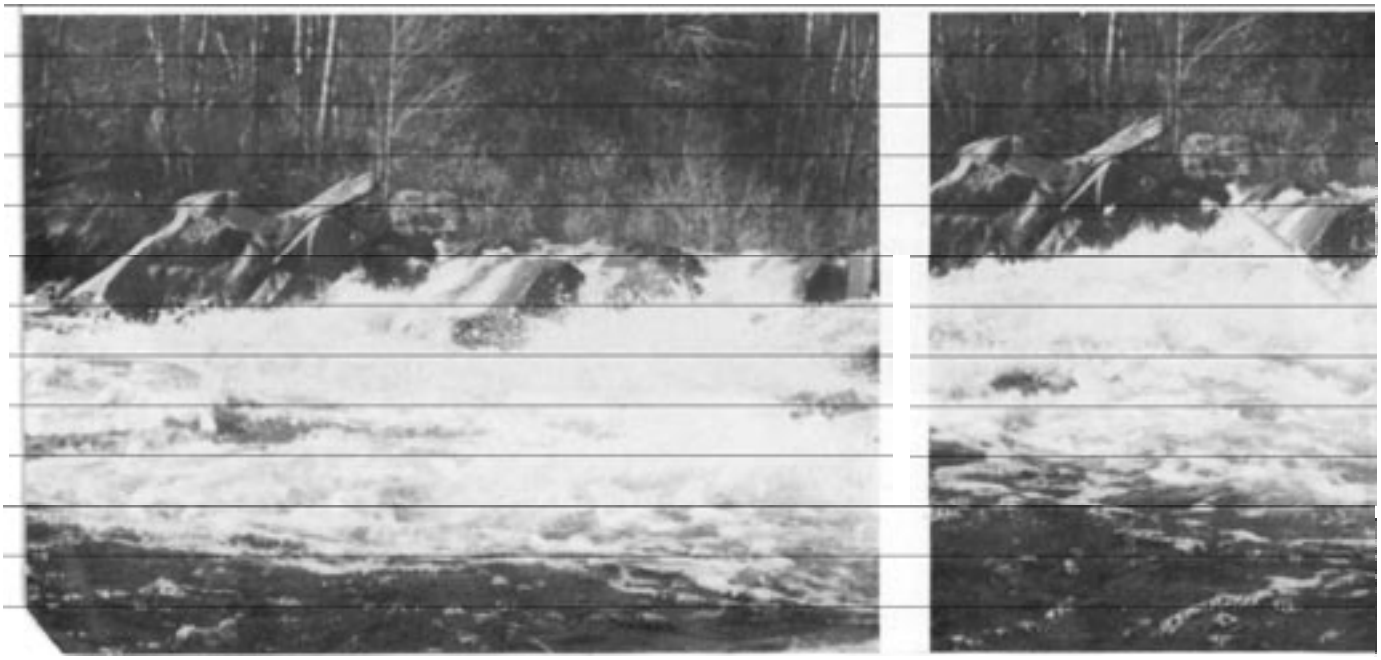


Above: Toward end of "Week of Rivers" students get opportunities to try pop-ups and enders. Here instructor Nichols coaches Henry Wallace, 13, at Keyhole on the Chattooga.

Rick Gustafson *vs* Grandfather Falls: On the ramp and getting in some good strokes. Photos by Andy Westerhaus.

Gone!

Popped UP— but not



The first rapid below Grandfather Falls Dam. Photo by Andy Westerhaus.

RIVER RENAISSANCE

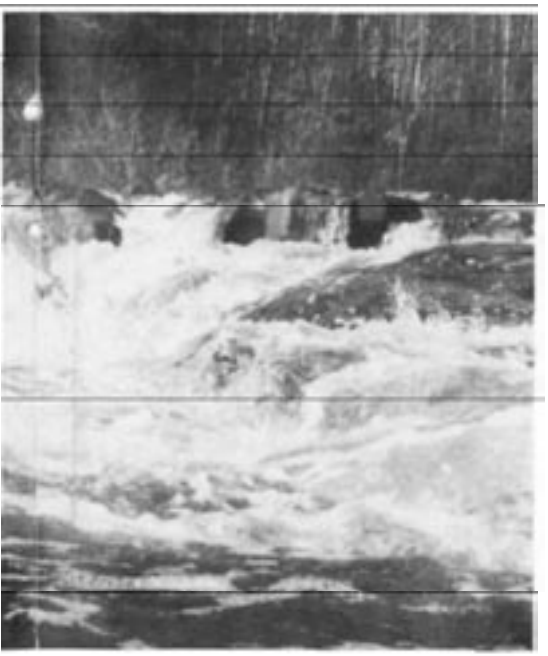
by Andv Westerhaus,
1905 River Hills Dr.,
Burnsville, MN *55337*

A short segment of the Wisconsin River came back to life again this past summer. The penstocks at the Grandfather Falls power station were being rebuilt. During this period the water was discharged down the old river bed. This provided paddlers with 1.1 miles of river with 50+ ft./mi. gradient and flows between 1,200 and 7,000 cfs.—a Midsummer Night's Dream for Midwest paddlers desperately in need of some WW therapy sessions.

The rapids are mostly unobstructed, heavy and (except for Grandfather Falls) relatively easy. Good waves and play areas exist in many places. Care must be exercised at Grandfather Falls —an 8-footer about halfway down. Approach this drop from the left and leave ample room for stopping. Old Grandfather can be an ornery fellow. It can stop a boat and hold a swimmer, even at lower flows! Any run of this drop should be assisted by an on-shore throw rope.

Unfortunately, it was just a summer romance. All water is again going through the penstocks. Water may flow down the old river bed again, but only during heavy spring melt or unusually wet summer periods. Boaters can get current flow data by calling the Wisconsin Public Utility power plant at Grandfather Falls: (414) 536-8200.

: OUT and facing upstream.



Over and out! Photos by Andy Westerhaus.

WATER DISINFECTION IN THE WILDERNESS

A Simple, Effective Method of Iodiation

by Frederick **H.** *Kahn, M.D. and Barbara R. Visscher, M.D., Dr. PH.*

(The following is a condensation of an article appearing in the ***Western Journal*** of ***Medicine,*** Vol. 122, #5, May 1975. For reprints of the entire article, contact F. H. Kahn, M.D., 123 N. San Vicente Blvd., Beverly Hills, CA 90211.)

A water disinfectant for the traveler presents special requirements: simplicity, effectiveness in the presence of nitrogenous pollutants, rapidity of antimicrobial action over a wide pH range and immediate palatability. The backpacker will, of course, demand light weight.

A simple method of iodination which meets these requirements and offers a number of advantages over the time-honored chlorination of small quantities of water with p-dichlorosulfamoyl benzoic acid (Halazone®) is described below.

A number of waterborne disease outbreaks have occurred when simple chlorination was practiced. Neefe's classic study of an infectious hepatitis epidemic demonstrated the failure of combined chlorine to inactivate the hepatitis virus.

Additional disadvantages of Halazone are slow solubility and a short shelf life of five months when stored at 32° C (89.6° F). Potency is reduced 50% when stored at 40° to 50° C (104° to 122° F), the temperature range one might expect in an automobile glove compartment on a summer day. Halazone loses 75% of its activity when exposed to air for two days.

TABLE 1 – The volume at various temperatures of a near saturated solution of iodine added to one liter of water to yield an iodine concentration of 4 parts per million.

Temperature	Volume	ppm	Capfuls*
3" C (37" F)	20.0 cc	200	8
20° C (68° F)	13 0 cc	3W	6-
25" C (77" F)	12 5 cc	3?0	5
40° C (104" F)	10 0 cc	4W	4

*Assuming a capful of standard 1 ounce glass bottle is 2½ cc

Procedure for Iodiiation Using Crystalline Iodine

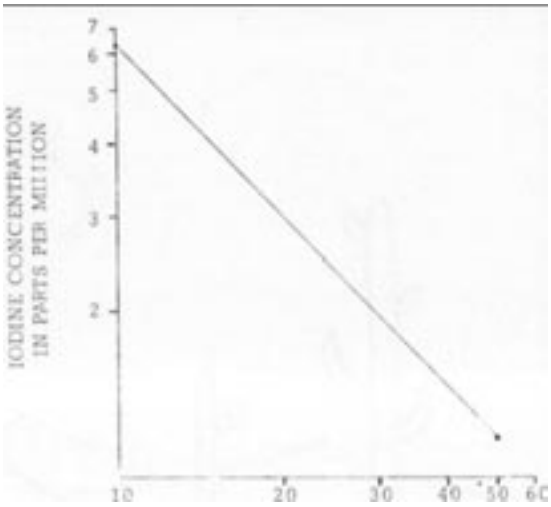
The only equipment needed for iodination with crystalline iodine is a one-ounce clear glass bottle with a leak-proof bakelite cap (e.g. flavor extract bottles-ed.), containing 4 to 8 grams (or any small quantity) of USP grade re-sublimed iodine (I_2). The bottle is filled with water and capped, shaken vigorously for 30 to 60 seconds, then held upright for a few moments to permit the heavy iodine crystals (specific gravity 4.6) to fall to the bottom. The iodine crystals are not to be used directly. Disinfection is accomplished at 25° C (77° F) by the addition of 12% cc of the near-saturated supernatant iodine solution to one liter of water, to achieve a final concentration of 4 ppm iodine. Since the concentration of the saturated iodine solution varies with its temperature (see Table 1), only 10 cc of iodine solution would be needed if the bottle were kept at body temperature. At near freezing, 20 cc of iodine solution would be used per liter. (The cap of the iodine bottle may serve as a measuring device.) After a contact time of 15 minutes, the water is disinfected. When more disinfected water is desired, the above steps are repeated almost 1,000 times without replenishing the iodine crystals, The shelf life of crystalline iodine is unlimited. Under usual circumstances, a 2 ppm iodine solution

with a contact time of 40 minutes would offer improved palatability and effective disinfection.

If increased germicidal potency is necessary because the water is turbid, cold or known to be heavily contaminated, the concentration of the iodine solutions could be increased to 8 ppm, with a contact time of 20 minutes. However, in the interest of palatability, one may prefer not to increase the concentration, but instead increase the contact time (see Chart I).

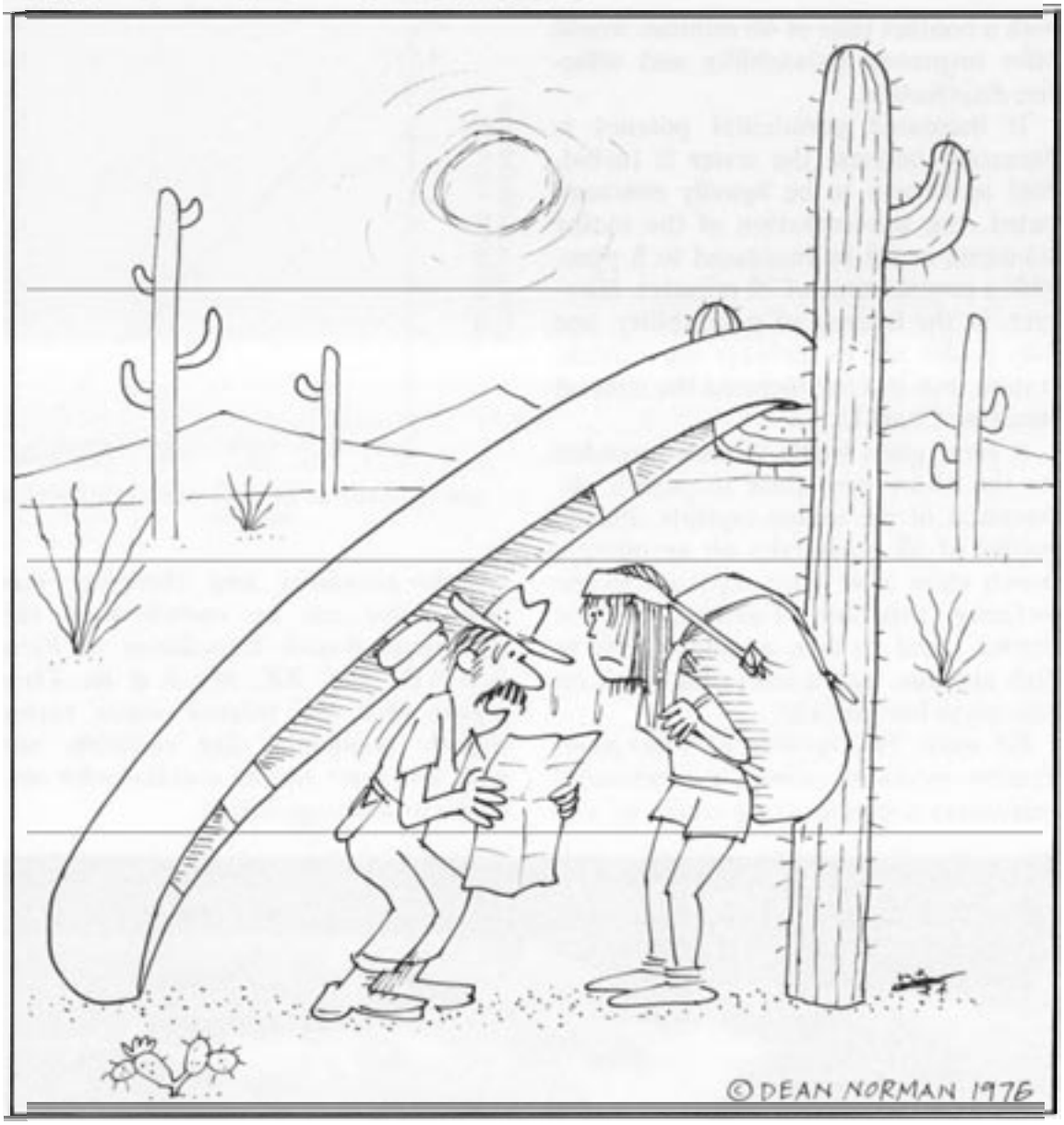
A clear glass bottle is recommended for the above procedure to permit observation of the iodine crystals. Plastic bottles of all types take on an opaque brown stain after long exposure to the working solution. Further, plastic bottles tend to leak as one travels to high altitude, and distort and crack on descent to low altitude.

Ed. note: This method of water purification meets all criteria for extended wilderness tripping using water of uncertain potability and therefore was chosen for use by members of the Apurimac Kayak Expedition in Peru (see AW, Vol. XX, #s 5 & 6). They report that the treated water tastes slightly medicinal, but certainly not bad. The taste can be masked with tea. coffee or beverage mixes.



TIME IN MINUTES FOR TOTAI. VIRUS DESTRUCTION AT 25 C

JAN AND DAN BOONDOCK



"We must have wandered off of .the portage trail somewhere between Moose Lake and Big Beaver Swamp."

1476 CLINIC & 'RACE SCHEDULE

February
28–29 NANTAHALA GLACIER **BREAKER** (slalom and wildwater)
March
5– 7 NOC Orienteering Course
12–14 Decked boat clinic
14–19 Week of High Water Rivers for decked boats
19–21 Open boat clinic
21–28 Spring Training Camp
27–28 NANTAHALA SPRING RACES (slalan and wildwater)
April
2– 4 Decked boat clinic
9–11 Decked boat clinic for women
12–16 Canoe Instructor Training Program (in cooperation with the American Canoe Association)
16–18 Open canoe clinic
18–23 Week of Rivers for open canoes
24–25 NOC OPEN CANOE RACES (slalan and wildwater)
30–May 2 Decked boat clinic
May
7– 9 Open canoe clinic
14–16 Decked boat clinic
16–21 Week of Rivers for decked boats
21–23 Open canoe clinic
24–28 Canoe Instructor Training Program (in cooperation with the American Canoe Association)
28–31 Three day decked boat clinic
June
4– 6 Decked boat clinic
11–13 Open canoe clinic
13–18 Week of Rivers for open canoes
18–20 Decked boat clinic
SOUTHEASTERN **CANOE** & **KAYAK** CHAMPIONSHIPS (slalom and wildwater, sponsored by the Georgia Canoeing Association)
July
2– 5 **Three** dav decked b a t clinic
9–11 Decked b a t clinic
11–16 Week of Rivers for decked boats
16–18 Open canoe clinic
23–25 Decked boat clinic
30–August 1 Decked boat clinic for women
August
6– 8 Open canoe clinic
13–15 Decked boat clinic
20–22 Open came clinic
27–29 Decked boat clinic
September
3– 6 Three day decked b a t clinic
6–11 Week of Rivers for decked boats (Monday night through Saturday)
10–12 Open canoe clinic
17–19 Decked boat clinic
25 NANTAHALA OUTDOORSMAN"S TRIATHALON (swimming, running, paddling canpetition)
October
1– 3 Decked boat clinic for women
8–10 Open came clinic
10–15 Tall Colors Week of Rivers for open canoes
15–17 Decked boat clinic
22–24 Decked b a t clinic
29–31 Open canoe clinic
November
5– 7 Decked b a t clinic
12–14 Open canoe clinic
19–21 Decked boat clinic
26–27 THANKSGIVING kNOCkout **RACE** and KAYAK & CANOE POLO TOURNAMENT

THE WAYS OF WHITEWATER

IV: A MIDSTREAM RESCUE

by O. K. Goodwin, AWA Safety Chairman

There will come a time when someone, somehow encounters a problem and ends up marooned (or trapped) in the middle of the river. Rescue, if required at all, may be crucial and the speed with which the effort is mounted could be the difference between Life and Death.

Rescue from this situation may be very difficult. It does not just happen; you must be prepared in order to do it and the coordinated effort of several persons will be required. Circumstances dictate what can and cannot be successful; when circumstances do permit, here is one method that has a fair chance.

Let's assume that the river does not exceed 80 feet in width; that the water is relatively fast (8-10 mph); that it is generally too deep for wading; that it would be extremely difficult to reach the "victim" by free-swimming and that maintaining position if you could reach him would be even more improbable. Rescue by boat would also be unlikely in these circumstances.

Further, let's assume that the "victim" is unable to assist in his own rescue.

Now, no matter where they are to begin with, we require two heaving lines; two line handlers (one on each bank about as far upstream from the victim as the river is wide) and a third man to actually effect the rescue. Getting these people and the two lines into position will probably require more time than everything else that follows. Whether or not it can be done with enough speed to successfully rescue the victim depends upon four things:

1. Having three or more people available
2. Having two heaving lines available
3. Recognizing the emergency quickly
4. Reaching quickly the positions described above

Assuming that all this is possible, let's go from there (Refer to Figure **1):**

1. Line Handler (A) ties a bowline'" in the end of his heaving line. The loop size should be just large enough to slip over the head and one arm of the Rescuer.
2. Line Handler **(A)** then ties a Flemish Eye Knot[1] in the line about two feet above the bowline.
3. Line Handler (B) has thrown his line across the river to the Rescuer (C) who hands the end of it to Line Handler (A) when he is ready.
4. Line Handler (A) takes the end of the line, doubles it, and ties it to the Flemish Eye in his line, using two half-hitches.[1]
5. Rescuer puts loop of bowline over his head and shoulder and enters the water.
6. Both Line Handlers feed line and snub line as required to enable the Rescuer to reach a position upstream of the victim, and allow him to approach the victim with the two lines serving as a support.
7. When Rescuer reaches the victim he frees the victim.[2]
8. One of the Line Handlers allows his line to slack-off, the other holds his belay to "swing" the Rescuer and Victim into shore.

Discussion:

Admittedly, this method of rescue will not apply to all circumstances.

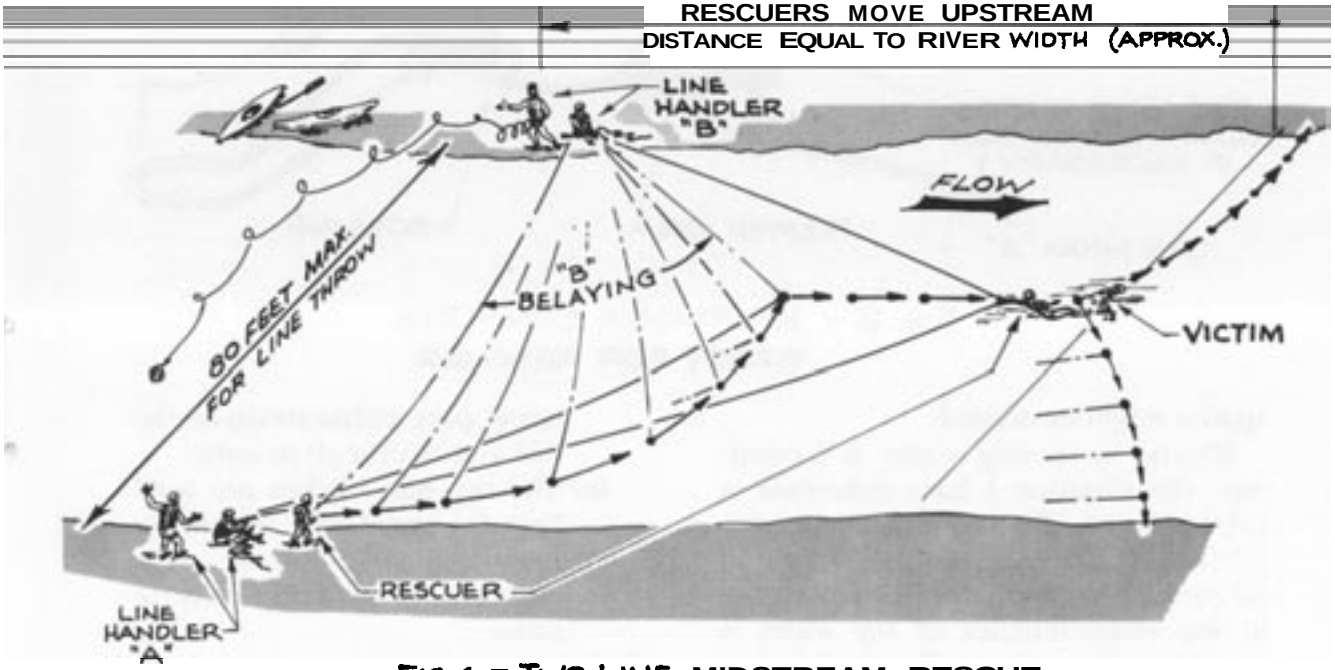


FIG. 1 – TWO LINE MIDSTREAM RESCUE

(But it ***may*** apply to some!)

Admittedly, many persons do not carry a heaving line or rescue line with them. (But ***maybe*** they will start doing so when they recognize the need. I wholly favor one line ***in each boat).***

Admittedly, there is a time lag in getting this method of rescue started — and it does require close cooperation and mutual confidence between those involved. (Until ***some controlled method*** is started, the fate of the victim is ***very much*** in doubt. If a simpler method could be more quickly successful, then by all means try it, especially if there are enough people on hand to do both).

Admittedly, few paddlers today have experience in throwing a line or in streaming on the end of a line. (The only answer I have to this is—If the need for this expertise exists, as it apparently does, then we must gain it. In the case of the Rescuer streaming on the end of the line I must caution that this experience should be gained gradually and under controlled conditions. We don't need the added problem of rescuing the Rescuer. I have little experience in this myself, but from what little I do have and from observing others, it is apparent that body attitude makes all the difference. I would ***not*** attempt to wade out if the water is deep enough to float; I would face downstream with my feet at the surface. I would attempt to maintain my back to the water, shoulders back and body planing. Properly done, I believe the Rescuer can keep high in the water and will not be immersed in the wave that develops when the body attitude is wrong. Also on this point — IF the Rescuer finds himself in serious difficulty, and needs to get ashore, he should signal the line handlers to swing him in or, in an emergency, slip out of the loop and take his chances, swimming free.

Hand signals might well be needed to communicate and if the Rescuer is not in clear view of both handlers, a relay

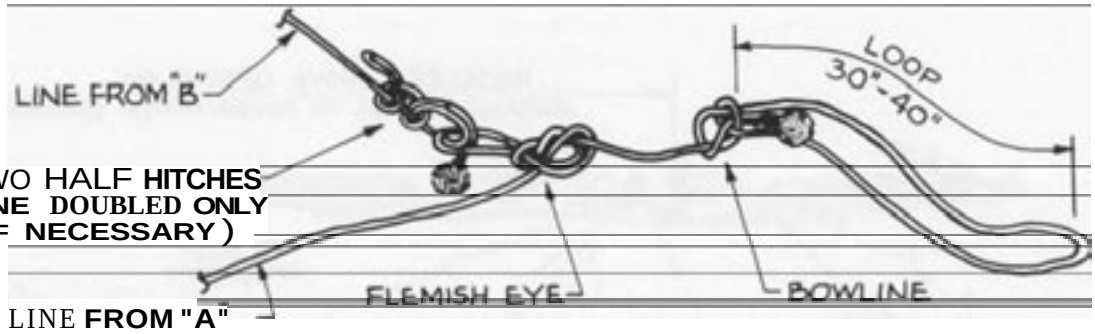


FIG. 2 – KNOTWORK COMPLETE READY FOR RESCUER

spotter might be needed.

Rescue in moving water is hazardous; the situation I have described is extremely so. To successfully accomplish such a rescue requires much of all persons involved. A solid knowledge of the characteristics of the water is essential. Strength, agility and swimming ability are needed by the Rescuer. A knowledge of rope, knot tying and use of a line are needed by the Handlers, including the ability to throw an eighty foot long line across an eighty foot wide river and belaying that line or snubbing it to control the pull exerted on it. Calloused as it may sound, I am opposed to any rescue attempt in which the rescuer is inexperienced ***and in which his own survival is in serious doubt.*** Bravery is to be admired but foolhardiness is not. Since each emergency is unique, the circumstances dictate whether or not the attempt should be made.

Notes:

(1) These specific knots are considered the most efficient for the job.

(a) The bowline loop is a non-slip loop which does not jam. No substitute is reasonable.

(b) The Flemish Eye Knot is a simple middle-of-the-line knot that does not jam. An open-hand knot could be used here, but it is subject to severe jamming, puts undue strain on the line and is difficult to untie.

(c) The two half hitches are used here for speed and simplicity. Even though jamming does occur, it is relatively easy to untie.

(2) Freeing the victim may be more difficult than it sounds. In entrapment situations, where the victim may be hung up in the rocks, tree branches, wire, etc. or where he may be pinned by a boat, the pressure exerted by the water is a factor. Overcoming this pressure to release the victim may be beyond the strength and ability of the Rescuer. If such is the case and circumstances permit, a third line may be brought into play to pull the victim free or shift the object that is pinning him. Also, it is possible to put a second or third rescuer out in the river by the method described.

HAHN'S HANCHOS

THE USE OF THE ENGLISH GATE IN CANOE INSTRUCTION AND EVALUATION

by Robert B. Kauffman

Summer term, 1974, as part of the required Physical Education canoeing class at The Pennsylvania State University, the "English Gate" was introduced both as an instructional and evaluative tool. The following report is an evaluation of the use of the "English Gate" in beginning canoeing. Comments apply to both tandem and solo paddling.

General

The English Gate, called the wiggle test by the English kayakers who devised it but known in this country as the English gate, is a sequence consisting of four symmetrical phases which also may be run individually. See Figure 1.

Although the four phases are run symmetrically, the turns within the phases may be run in any order or the phase may be entered from either side. For example, in phase one if the first turn made by a solo paddler is an inside pivot turn then the second turn must be an outside pivot turn. Had the paddler used the outside pivot turn as his first turn, then the second turn would have been an inside pivot turn. Although which turn is executed first is not critical for the beginner, it is for the expert paddler who is interested in minimizing his distance and hence time through the gate.

A score for the English Gate is normally determined from the elapsed time through the four phases with 10-second penalties assessed for each time the gate is touched. For a beginning student elapsed times should periodically be kept but with no reference to touching the gate (buoys). The times help the student determine if he is paddling too fast or too slow for his level of technique.

When run by paddlers in closed canoes or kayaks, the English Gate is sometimes run with four Eskimo rolls. See McNair (1969) and Urban (1970) for the English Gate with rolls.

Gate Construction

The gate is generally constructed from poles suspended on an overhead wire. However,-buoys used in place of the suspended poles proved satisfactory. For beginner paddlers, hitting a buoy is less conspicuous and embarrassing than hitting a pole, and the buoy interferes less with paddling. Also the buoy may be used on a lake where it would be nearly impossible to hang a gate. The canoe's movement through the gate results in minimal buoy movement if the buoys are kept taut. See Figure 2 for construction.

Instructional Use

The gate may be used effectively with beginning paddlers after the basic skills have been learned. Then phases of the English Gate are introduced, coordinated with the development of the student's competency in the strokes. Two groups used the English Gate during our summer term. The first group consisted of students who had previous paddling experience. After receiving a review of strokes during the first session. they were introduced to the first two phases of the gate during their second session. The second group, consisting primarily of non-paddlers, was introduced to the same phases during the fourth session after some competency was developed in the basic strokes.

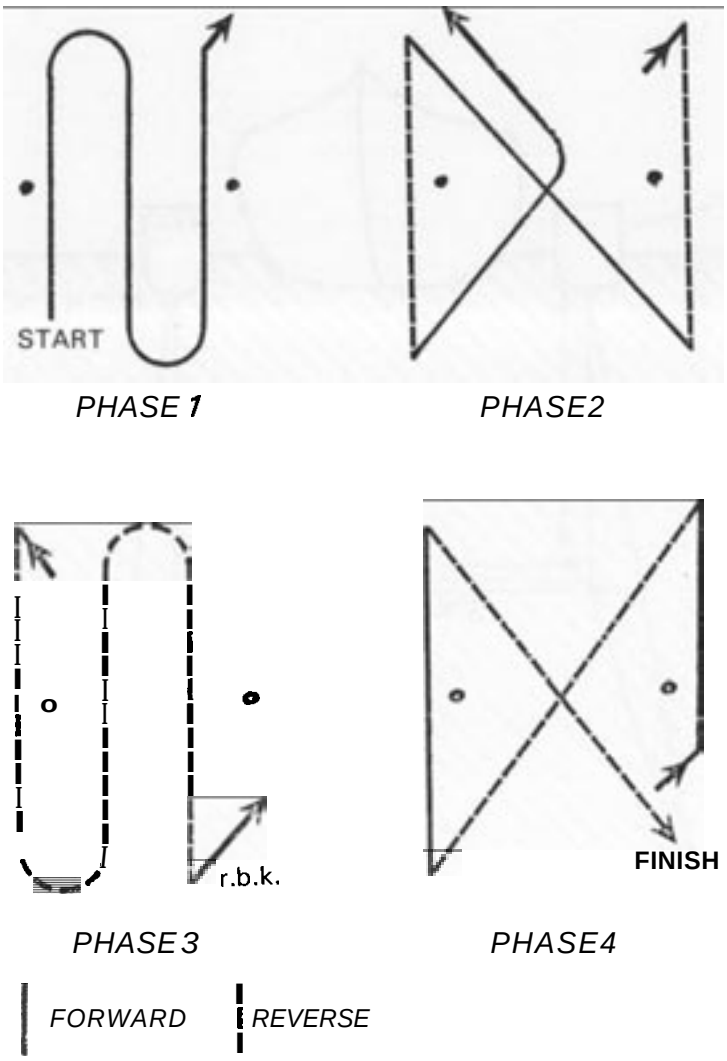


Figure 1. English Gate

The sequence is as follows:

Beginner:

Phase 1. Forward through the gate, a right turn, forward through again, a left turn, and forward again through the gate.

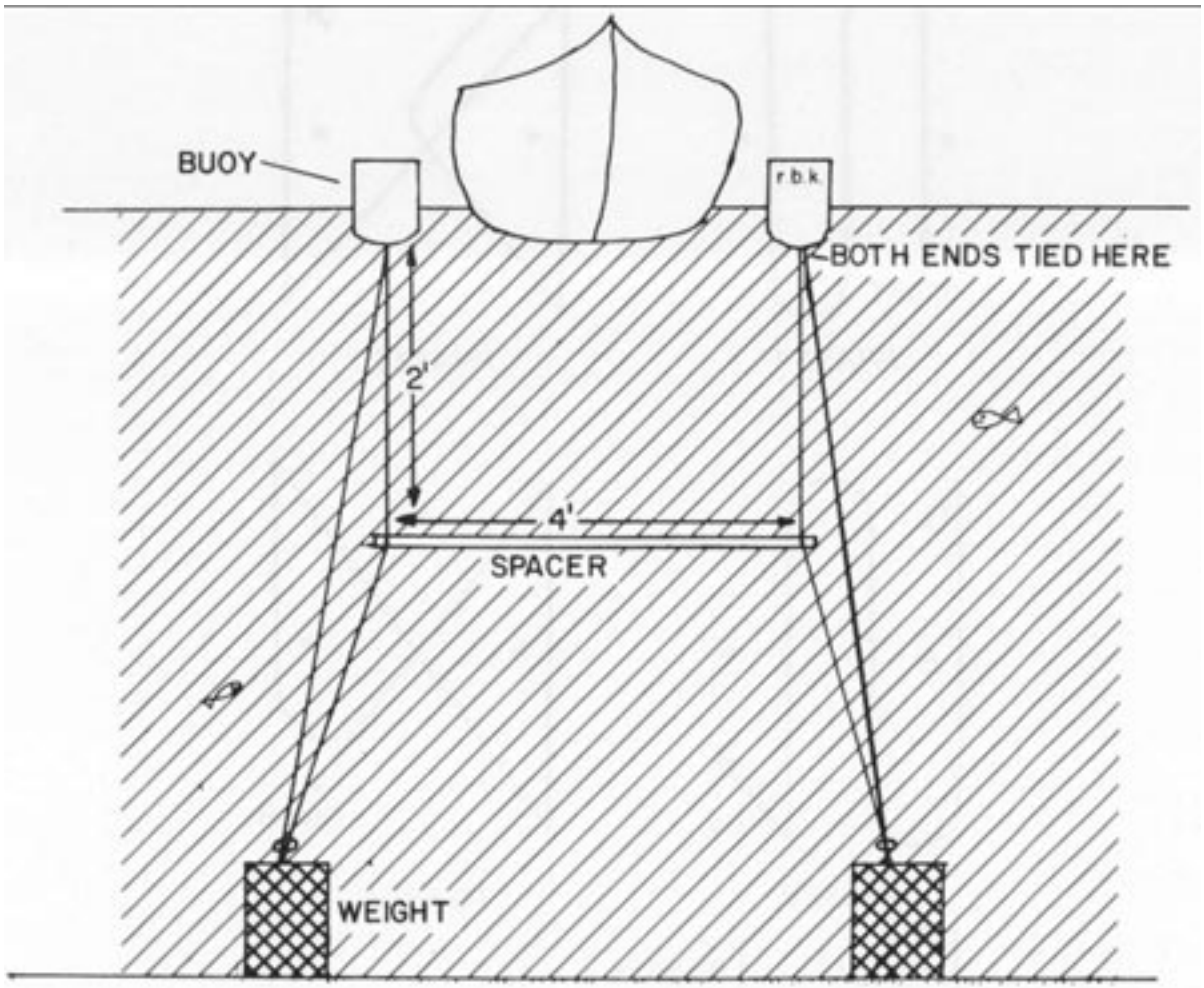
Phase 2. Reverse (backward) outside on the right, roll to left, forward through, reverse outside on the left, roll to right, and forward through the gate.

Intermediate/Advanced:

Phase 3. Reverse down the left side, reverse right turn, reverse through the gate, reverse left turn, reverse through gate.

Phase 4. Forward up the right side, roll to left, reverse through gate, forward up the left side, roll to right, reverse through gate.

ENGLISH GATE CONSTRUCTION



Phases one and two were chosen for use since the degree of difficulty of these two phases corresponded more to the level of learning of the beginner compared to phases three and four. Also, phase three is symmetrical to phase one and phase four is symmetrical to phase two except that in phases three and four the boat reverses through the gate. More advanced students may be taught the entire sequence after which they can use the gate sequence for self-improvement.

The most difficult maneuvers for solo students were stopping and moving the canoe in reverse. Most students initially found solo gate paddling extremely difficult and in some cases slightly frustrating, but most of these same students did remarkably well in running phases one and two considering their beginning skill level. Some of the problems may be avoided by widening the gate by six to eight inches. However, to widen the gate too far will hinder reversing the canoe during phase two.

An informal approach was used where the student could use the gate at his convenience. Two gates were set up: one for use with instructor's aid, the other for self-instruction. Two gates easily supported a class of 10-12 boats and somewhat fewer solo paddlers without congestion.

The students indicated that they thought the gate sequences were enjoyable and helpful to use.

Use in Evaluation

Phases one and two of the English Gate along with a straight line course were used in evaluating the beginning paddlers. Evaluation for the English Gate sequence included time, technique, and strokes. These three components were then combined into a final grade.

The better the paddler the faster his time through the gate. A time range of around two minutes for both phases was normal for tandem beginner paddlers with three minutes being slow. A slow time usually reflected a lack of technique although it may also reflect excessive movement through the gate.

Technique is the ability to make the boat do what you want it to do when you want to do it. Hence the technique component reflects such components as smoothness, judgment regarding the use of strokes, cooperation between tandem paddlers, strength, conditioning, flexibility, stroke technique, etc. However, stroke technique was graded separately and referred to the proper form used in each stroke.

Both technique and stroke technique received a letter grade with the final grade being the average of the two. The elapsed time was used as a check on the final grade since it reflected the paddler's technique. Both the bowman and sternman were graded and although positions in the canoe were not switched this could easily be incorporated within the test.

Since the English Gate sequence does not measure straight line paddling ability over a distance, a separate test was constructed to evaluate this. For tandem paddlers the test consisted of paddling at least 100 yards in a straight line, changing positions within the boat and returning to the starting point. A grade was assigned to the sternman only although one may be assigned to both positions.

Conclusions

The English Gate was a useful instructional and evaluative tool in working with beginning open canoe paddlers. The first two phases of the gate are recommended for use with the beginning paddler, with the last two phases being limited to more advanced students. The gate is goal-oriented for the student; it aids in the development of proper technique and should be introduced to the student only after some proficiency of the strokes has been obtained.

For beginning paddlers, phases one and two along with a straight line course are recommended as two tools useful in measuring the paddling technique of a student.

References:

McNair, Bob Basic River Canoeing Martinsville, Indiana: American Camping Association. 1969

Urban. John T. A White Water *Handbook for* Canoe and Kayak Boston: Appalachian Mountain Club. 1970

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BOOK REVIEWS

THE COMPLETE WILDERNESS PADDLER, James West Davidson and John Rugge, Knopf, 1976, $10.00.

A handsome hardcover book of some 260 pages that does about all that can be done on paper to prepare the reader for a wilderness canoe trip. The book is aimed at wilderness tripping in open canoes, but the authors are obviously real whitewater river rats who bail their Grummans with Clorox jugs, and patch 'em with duct tape like the rest of us.

The book centers around a trip the authors and two companions took down the entire length of the Moisie river in the Labrador section of Canada (Quebec). This particular trip was selected for use in the book because it was found to encompass every kind of water, terrain, and problem which such a book should deal with. The information is detailed and complete, the technique section is up to date, the advice is practical, and the illustrations very well done—all told with a touch of New England humor. In addition to the topics one expects to find (equipment selection, paddle technique, portaging, camping, etc.) they have included a nice section on selecting a wilderness river and researching the feasibility of a trip using libraries and maps. Other unique sections include advice on bugs and pests, recruiting suitable partners for a trip, and prevention of squabbles and "camp fever" on the trip itself. Sound like good guys to head out with. Write a good book too.—Jim Sindelar

CANOEING GUIDE TO WESTERN PENNSYLVANIA AND NORTHERN WEST VIRGINIA, 6th Edition, compiled and edited by Kathy Spindt and Mary Shaw, published by the Pittsburgh Council of the American Youth Hostels, 6300 Fifth Ave., Pittsburgh PA 15232. $2.00 paperback, 168 pp.

This is an unusual guide book in many respects and certainly among one of the best. Let's start with the gender of the authors for one. Lest there be any remaining male chauvinists pigs still paddling, it should be pointed out that both of these ladies get around a good deal, are active paddlers, and the "junior" author is also an expert and nationally known poling type paddler. Any guide book worth its salt has maps and this one has excellent maps drawn by Don Hoecker. The book contains a tightly edited collection of river descriptions run by members of the Pittsburgh AYH. This is about the only disadvantage of the guide since the authors have not personally run all of the rivers described and thus the same yardstick is not used in each case. However, it should be pointed out that this guide is in its *sixth* edition—practically a record—so that most errors and inconsistencies have been weeded out in earlier editions.

This edition is greatly improved from earlier ones. First of all it has been reduced to a handier 6'' x 9'' format and it contains many excellent photographs by Mary Shaw. Her work shows her enthusiasm for both hobbies and consists mainly of close-up shots of various club paddlers. I would have preferred pictures taken from greater distances so that one could get an idea of the particular rapids being described. Such pictures would thus be more explanatory and give one a better idea of a particular rapids than the best possible prose could ever do.

The book is arranged by watersheds, the Beaver, Allegheny, and Monongahela drainages. It also contains a miscellaneous section describing rivers in other basins, but that are within weekend driving distances from Pittsburgh and popular with club paddlers. The river sections are described in the well proven Randy Carter format with the technical data arranged at the top and then key description, difficulties, gauge, topo map, and shuttle information given below. If a particular river section is known, but has not been run or described from the paddler's viewpoint, then the editors have inserted an exhortation like, "Help complete the guide. RUN A RIVER!" It has been standard AYH practice for years that if a paddler writes up a usable description selected for inclusion in the guidebook, he or she gets a free copy of the next edition. In this manner I have been supplied with copies for years.

There is much valuable introductory material as well: explanations for proper use of the guide, a description of Pennsylvania's Wild and Scenic Rivers program, much information on safety including a reprint of the AWA Safety Code, and a unique series of tables comparing all of the rivers from several parameters. There is also a most interesting river gauge table which gives the volume in cfs for each river for different gauge readings for that river. An enormous amount of work went into the compilation of this kind of data for that one table alone.

I have been familiar enough with this book for years and with many of the streams it covers to recommend it highly. I find the descriptions pertaining to rivers also covered in our book to be accurate and supplemental. Writing a guide book gets to be a labor of love and it is obvious that Kathy and Mary have given this book a good deal of both. — Bob Burrell

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