Above: AWA Director Rob Lesser on the river and off. (photo by Bernuth)

Contents

ARTICLES

The Boonton Gorge ................ Ed Hanrahan 10
Chilean Impressions. ............ Pete Skinner 14
A.W.A.R.E. Report .............. Harry Kostes
Donald A. Gordon 18
One on One Weekend .......... Emilie Pentz 21

DEPARTMENTS

Editor's Soapbox .................... 4
Letters From Readers ............... 5
Fluvial News: Affiliate Notes ........ 6
Conservation Notes ............... 7
Classified .......................... 24
River Safety: Dehydration ............. 12
Equipment: A Female Wetsuit Fly .... Marge Cline 13

How to Write to AMERICAN WHITEWATER:

- Send articles, photos, cartoons, poems and drawings to AWA Editor
- Send all membership forms and payments to Membership Chairman.
- Send advertising matter and payments to Advertising Chairman.
- Send questions of AWA Policy to Board President
- Obtain membership forms and all other information from AWA Secretary.
- Obtain AWA products from Membership Chairman.

*Obtain AWA Safety Codes from Dave Smallwood, Box 1261, Jefferson City, MO 65101

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AWA INFORMATION:

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American Whitewater is mailed to all members of the American Whitewater Affiliation, an affiliation of boating clubs and individuals interested in whitewater paddle sport. Membership is open to interested individuals at $10.00 per year and to clubs at $12.00 per year. Businesses may affiliate at the rate of $20.00 each year. Clubs and business affiliate names will be listed periodically in the Journal.

The Staff and Directors listed above are unpaid Whitewater enthusiasts who volunteer their time and efforts to bring affiliation member subscribers this journal. Your contribution of articles, letters, race results and schedules, photos and drawings are essential for their continued efforts and the timely publication of the American Whitewater Journal.

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Editor's Soapbox

Rebuilding the Forum

Chances are, you as a whitewater paddler, have more in common with a dedicated boater from Japan, than you do with your own next door neighbor. The boaters' bond shares an exuberance that o'er leaps geography and excludes the uninitiated. The dumps, training, and experience that have earned you a place on the river; Your exhilaration in cleaning Gate 15 or Sousehole Two; Even the incessant cold and the insufferable moral superiority you gain from enduring it: All these instantly understood commonalities forge boaters into a strong, unified community.

Those club friends you shiver and sweat with every weekend are, of course, part of it. But there is a larger whole — worldwide — that is more varied and at least as fascinating. It is this whole boating world that AWA and its Journal strives to unify. By reporting to you everything that whitewater paddlers are doing, we hope to tighten this community and bring you in touch with boaters you may not know, but are already close to.

Frankly, for the past year, we've been falling down on the job. For innumerable reasons, not worth fussing about here, issues have been slimmer and off schedule. The American Whitewater Journal has not been the quality you expect and deserve. But we have at last received a transfusion. A new Chairman, with newly elected Directors, and, as of this issue, a new Editor, are all working frantically to revive both the Affiliation and The Journal. We hope to regain the enthusiasm shown by Editor-of-eld Peter Whitney, and add some of the new dimensions that have come into our sport.

In the main, the changes we plan are qualitative. We will work to bring you fuller, better issues; on schedule. It is my personal aim to broaden The Journal's scope, both geographically and in content. Regional editors are desperately needed as are expert voices in equipment, racing, technique, and bankside scenery.

But the guts of the AWA and The Journal will not change. This magazine will continue to be the forum for the paddler — not a podium for lectures to him. We do not seek to represent your voice, but to amplify it. Please help us not to amplify dead air.

AWA Journal needs material. We ask all whitewater clubs to put us permanently on your newsletter mailing list. We beg you, the individual boater, to submit articles, jokes, newsy tidbits, drawings, photographs: anything about the boating world you'd like to see published.

Please add a little of your own effort to rebuild the community forum. Send it all to:

Bart Jackson
AWA Editor
38 Windswept Drive
Hamilton Square, N.J. 08690
To the Editor:

Unaccustomed as I am to public art criticism, I must point out that your cover photo (Jan./Feb. White-water) of "Art Block of New York in next year's fashions for white-water" is not a very good likeness.

I will concede that the Spiderman figure on the kayaker's cape is well-conceived and competently executed, a fine exemplar of neo-figurative cartoon illustration. Also, the kayaker's mask, though it lacks the elan one has learned to expect in whitewater art, nonetheless complements the otherworldly atmosphere of the scene of a comic hero paddling a hollowform across a woodland meadow.

However, after extensive consultations with his friends and colleagues I have reached the conclusion that Art Block does not wear a mustache. Moreover, a forensic orthodontist retained to investigate this matter has concluded that there is no correlation between Block's teeth and the glistening row shown in the photo. In short, you've got the wrong man.

Imagine Block's disappointment when, after years of turning eagerly to the American Whitewater photo credits in the hopes that he would be erroneously identified as a boater shown heroically leaping an obstructed forty-foot high waterfall or performing some similar feat, the long cherished error that eventually appeared identified him instead as a fashion model posing securely on dry land. Could it be that the misidentification was the work of a "plumber" acting on behalf of one of Block's competitors in the AWA Directors election (that was conducted in that very issue)?

For an error of this dimension, a mere retraction hardly would be adequate. Fortunately, an alternative form of redress is available. You will note that the Nov./Dec. issue did not identify the daredevil boater pictured on the cover plunging over a horrendous drop. I suggest, therefore, that you print a statement explaining to your readers that the "Art Block" reference in the Jan./Feb. issue actually belonged with the previous issue's cover photo.

Two wrongs may not make a right, but they can soothe the ego quite nicely.

—Art Block

We at AWA humbly and profusely apologize for the most gross and inexcusable error of mistakenly labeling Art Block as our landlocked Spiderman. In an upcoming issue, we plan a cover picture of a paddler muscling his way back up the forty foot falls you describe. Perhaps all egos could be adequately soothed by lending your name to that feat. We hope so. —ed.

tell your friends about AMERICAN WHITEWATER!
Affiliates, send your newsletters to our Editor to help AWA stay current with your club’s activities and concerns.

CLINE TO EDIT "THE GRADIENT"

The Chicago Whitewater Association newsletter "The Gradient" has a new editor, Marge Cline. A veteran of the Nantahala Outdoor Center clinics, Marge got hooked on whitewater during a raft trip on the Peshtigo River.

Send articles to her at:
"The Gradient"
1343 N. Portage
Palatine, Illinois 60067

NEW AWA DIRECTORS

The recent AWA election of directors took place earlier this year, and Executive Director Jim Sindelar has announced the names of the (hopefully) happy winners. The names of the candidates are arranged below in order of the number of votes each garnered:

1. Rob Lesser
2. O.K. Goodwin
3. Art Block
4. Fred Young
5. Rich Bangs
6. Bill Masters
7. Glenn Lukacs

The first four people will replace our outgoing directors and guide the policies of AWA for the next four years. The fate of AWA is truly in their hands and they will need all of your support. If you have any suggestions for the journal or for the affiliation as a whole; or if you would like to volunteer, check the masthead for addresses and notify the director nearest you.

MODERN DAY PIRATES

Officials of Cherokee County in Tahlequah, Oklahoma are warning canoe enthusiasts on the Illinois River to watch for pirates. The pirates scurry along remote sections of the river where the water is fast moving. They put a log out in the river and wait for the canoes to hit it and tip over. These incidents normally happen in deeper, swifter moving sections of the river where inexperienced paddlers are hesitant to dive for their lost belongings. The county rangers say that the pirates are using discretion on who they topple over and that they are picking on primarily the inexperienced and helpless.

1979 USOC NATIONAL SPORTS FESTIVAL

By the time you read this, the U.S. Olympic Committee will have held the National Sports Festival in Colorado Springs, scheduled for July 26 to August 1, 1979. The organiz-
ers hope this Festival will become one of the nation's "major athletic events." It already will feature 31 sports, 2300 athletes and 750 coaches, doctors and other personnel.

Canoeing and kayaking are among these sports. We wonder if this event could replace the ACA America's Cup races planned on the off years between the ICF World Championships.

NEW AWA TREASURER

Alice Farrington, of Hagerstown, Maryland, has graciously offered to keep the AWA finances in order. She has already reorganized the accounts to make them standard and to keep AWA out of the tax auditor's office. If you have payments for AWA, or need any information about affiliation finances, write:

   Alice Farrington
   AWA Treasurer
   Box 1483
   Hagerstown, Md. 21740

K-3 CARRIES CONS FROM THE KEEPER

San Quentin prison is probably the greatest keeper hole any kayaker has ever escaped from. On August 9, 1979, three prisoners crammed into a kayak they had constructed on the sly, and pushed off from San Quentin peninsula under the noses of the prison guards. Two men paddled the 14 foot craft while the third hid under a tarp.

Guards later admitted to seeing the "Rub-A-Dub-Marin Yacht Club" from the wall. In fact, one called to the boaters and asked if they needed help, since they appeared to be sinking. But the cons waved cheerily, assuring him that everything was A.O.K. and paddled on to freedom.

All three men were in minimum security and one was a former boat builder. Upon revisiting the warehouse, prison officials found scraps from construction of the craft. They did not, however, find a copy of the Walbridge boatbuilding guide. Sorry Charlie.

Conservation

TELLICO DAM ALERT!

Tom Johnson writes AWA and cries out for your help.

Tennessee's infamous Tellico Dam is at match point. The U.S. Senate has one more chance to delete an amendment to this year's water project and energy appropriations bill. This "Duncan Amendment" seeks to exempt Tellico from all federal legislation so that it can be finished. The Senate will vote sometime after September 1, 1979. Andrus has said he will urge Carter to veto. Administration sources are privately saying Carter may do so.
TELICO DAM (cont.)

THE ISSUES:
1. Subversion of Endangered Species Act and cabinet level committee determination not to exempt Tellico from the Endangered Species Act.
2. GAO, TVA, and University of Tennessee reports all show economics against completion.
3. Sleazy politics: [umbrella repealers, blanket exemption, legislation by appropriation (violates Senate Rule 21)].

WHAT TO DO:
1. Write to your Senator expressing your opposition to the dam. Stress the national issues above. Urge instructions to the senate conferees to the conference committee to stand firm against the house version of the bill.
3. Write to President Carter urging him to veto the entire bill if the "Duncan Amendment" stays in and to announce publicly his intention to do so.

SETBACK IN COLORADO
A binding precedent has been set for all rivers in the state of Colorado. Private landowners now have the right to deny the use of the state's rivers to recreational boaters.

The dispute before the court was a simple one. The Ritschard Cattle Company owner claimed that the river bed of a portion of the Colorado River was his and that he had a right to say who could use the water flowing over its bed. Rafters David B. Emmert, Berlin Taylor, and Elbert Wilson on July 3, 1976 challenged the rancher's claim and were arrested by the local sheriff. A lower court convicted the rafters of third degree criminal trespass.

The rafters appealed the decision. Recently, the Colorado Supreme Court reached a verdict agreeing with the lower court, and upholding the conviction of the rafters.

Ed. Note: Our special thanks to Western Editor Ed Seibert, for bringing this disastrous decision to our attention. Ed has written a full article on the details of this case, including what we can do in Colorado, and what we must do to prevent such a decision in other states. The article will appear in the next issue of AWA.

GRAND CANYON: MORE PRIVATE PERMITS & NO MOTORIZED RAFTS

"To make available a high-quality river running experience," the National Park Service plans a five year phase out of all motorized rafts on the Grand Canyon section of the Colorado River. All concessionaries would be forced to convert to oars, whether on dories or inflatables. The motorized rafts currently carry 80% of the 14,000 annually allowed through the canyon.

In addition, the concessionaries are losing their 92% stranglehold on the permits. The Park Service plans to reduce the commercial quota to 69%, leaving 31% for private boaters.

To the individual boater this will mean a slightly better chance of get-
ting on the Colorado in your own boat; more days on the river if you accompany a raft (12 to 19, instead of 5 to 10); and a higher cost, for the longer time.

SOUTH PLATTE RIVER STUDY ANNOUNCED

The river of TV’s "Centennial" is to be studied once again by the U.S. Bureau of Reclamation to determine the site for new water storage projects. Colorado is not currently using all of the water in the South Platte to which it is entitled and some years ago the Narrows Dam was planned to use some of this unused water. Conservationists and ranching interests screamed longly and loudly and were able to encourage the White House to blacklist this project. This study, in the words of Colorado’s Senator Gary Hart, "Will be an evaluation of existing proposals to help create a new federal-state consensus on the best use of Colorado’s unused share of the South Platte."

STRIPMINING ENDANGERS THE OBED

Dams are not the only danger rivers face. In our case, it is the systematic destruction by stripmining of the very values which put the Obed River into the National Wild and Scenic River system—sparkling clean water, unrivaled scenic beauty, no development. In response to local pressure, the Tennessee Department of Conservation agreed to consider a moratorium on strip mine permit issuance in the Obed watershed until Section 522 (Withdrawal of Land Unsuitable for Surface Coal Mining) of the Surface Mine Control and Reclamation Act could be implemented. Commissioner Tuck with an incredible burst of myopia has now announced the decision to appoint a task force to study Section 522 instead of granting the moratorium! Meanwhile, business as usual.

Still no land acquisition by NPA. Several requests for permits to strip are ‘pending. Every bit of damage is fuel for the "it’s already screwed up anyway" argument. Commissioner Tuck spent a weekend recently with a stripmine lobby group giving out awards for stripper’s reclaiming, as they are required to do by law anyway. The situation can be turned around. This is a national issue. Senator Baker has presidential aspirations and Commissioner Tuck is susceptible to pressure.

(continued on page 24)
Typographic errors corrected.

Experienced paddler Ed Hanrahan tells of his baptism by flood into New Jersey's swollen Boonton on this mid-winter trip.

High water waits for no paddler. So when the Boonton Gorge of the Rockaway River flooded to 4.6 ft on the gauge, we all hustled out to north central Jersey even though it was January 29 and just under 40°. Despite four years of active paddling, I had never hit this tight, technical, hellacious little screamer.

It's only a mile long, but is guaranteed to extract a full day's adrenaline from the most skilled paddler. Starting at the base of a fifty-foot waterfall, it plunges 120 feet per mile over a dam and several ledges, under bridges, and through countless labrynths of angular boulders. And after a week of snow and rain, it was pouring out 1000 cfs at its most demanding level.

About a dozen Kayak and Canoe Club of New Yorkers met at the put in and all manner of debate, second-guessing, and good old sensible terror gushed forth. Finally after scouting downstream Jim Muhlghan, Chuck Rollins, Tim Bliss, and I decided to go at it. My first run — what an introduction!

We put in at the pool just below Heinzerling's Horror, the first ledge-type drop. (A probable back-ender could leave one in less-than-ideal position for the short Class V rapid immediately below. Winds funneling down the gorge, violently surging non-eddies battering the ice on the shoreline, made just putting in a major undertaking. My wife Ann and Bonnie Bliss heroically held boats as we squirmed into place.

Tim went first. Ferrying easily across to the only real eddy around, he studied the view under the stone footbridge. Then, a few smart strokes and he was off and looking good.

Jim, immediately downstream of me, had trouble: bouncing off his put-in rocks. His bow was swept downstream before the tail was free, and he had to fight the current to stay clear of the trashy shoreline. He seemed to be okay by the time he went out of sight under the bridge.

I went next and started for Tim's eddy but, realizing this was not feasible from my position, turned downstream and backpaddled to line up for the drop.

Shoulder height diagonal waves converged below the thirty foot high bridge and led into assorted waves and holes that looked fairly passable. The only real dangers were a humongous, super-thrashing hole, at river center, and a sure boat-pinning rock
Ed Hanrahan curls some icy hair. just upstream of it, near the right shore.

Well, I had already mis-judged the power of the current to get to that right side eddy ... As I leaned left to brace into the first "shoulder-height" wave ... it's over my head! Ooof!! Still bracing left, hit by the right-side wave! Thrash!! waterface . . . can't see... watch that hole . . . and that . . . and . . . what's that mound . . . over my head . . . omy god . . . must have that super-thrashier behind it . . . drive hard right... But there was only time for two or three strokes. As I crested the right shoulder of the pillow, the boat straightened to the current, and I prayed that I could keep the right blade in solid downstream-moving water. Stopped! . . . pull hard . . . daylight. . . I'm out! Right arm and shoulder are violently protesting the lousy warm-up! Tim, a hundred feet downstream, later told me that I had disappeared completely from sight, and was afraid it might be rescue time!

We waited for Chuck, and waited, and waited ... He finally came into sight — upside down. One roll attempt ... another . . . Success!

... down the drop and up the face . . . high brace right . . . sinking OOF! . . . Lowbrace . . . THRASH!

Half-frozen, half-drowned, and semi-submerged with sprayskirt popped, Chuck beached and achingly re-composed boat and body. I later learned from the shore runners that my run had been the cleanest of the bunch!

We set off again, I was feeling great. We ploughed through a series of waves and raging cross-currents mined with hidden holes. I'd paddled Class V before, but nothing this intense: it demanded every ounce of (continued on page 26)
DEHYDRATION: The Forgotten Factor

JAY SPENCER

You may splash around in it all day but still not get all the water your body demands. And unlike hypothermia or other canoeist injuries, there are no definite, immediate physical signs that automatically indicate you’re dehydrated. The closest you’ll get is a sort of creeping fatigue that is easily attributable to other causes.

The body can survive much longer without food than water. And when your stomach is empty, it’ll cry for nourishment. But we’ve all learned to ignore a parched throat, usually beyond the point of common sense. Most paddlers are aware that when it is hot and they are active, they need to drink a lot of liquids. But when the water temperature is 36°F and you’re shivering in your wetsuit, this need for the right kind of liquid, taken the right way, is usually forgotten.

It is vitally important to replace fluid loss under all situations. In cold weather the fluid and salt loss are just as great as when it is hot. And for the paddler, they are substantially increased when he dons even a 1/8 inch wetsuit and/or paddling jacket. These sweat-box clothes accelerate both the rate and amount of fluid loss; meaning you should drink more frequently during winter paddling.

Replacing Fluids and salts is best done by drinking a little bit, frequently, rather than swilling down vast amounts just at the lunch stop. It is a good idea to keep a water bottle within close easy reach, where you can take small swigs sitting in eddies. For maximum performance, the racer, rather than listening to his dry throat, should plan to drink at regular intervals throughout the race day.

Water is obviously a good fluid, so is lightly sugared lemonade. Gatorade, Gookinaid, and similar products have a certain advantage as they replace lost potassium as well as sodium.

Coffee, tea, beer, and all alcoholic drinks are not helpful in replacing fluid loss as they are diuretics, and the body gives them up almost as fast as you drink them.

In severe cases of dehydration, the urine will appear dark against the snow or other background. It can also lead to and/or accompany exhaustion. In either case, get the victim relaxed, out of any sweat-inducing clothing, and administer small sips of the proper liquid.

Jay Spenciner is an Emergency Medical Technician and canoeist. He chaired the Appalachian Mountain Club Safety Committee ’77-’78.
Being an extremely avid kayak "nut", I have found myself on the river earlier each year, clearly necessitating the need for a wet suit. There is nothing more frustrating to me, a female, than to finally get me all squeezed into my farmer john, put on my sweater and jacket, don spray skirt and life jacket, only to discover the great anticipation and cold weather have made Nature call and I have to go! To answer the call it is necessary to take it all off again. In the early spring this is not only aggravating, but COLD!

Borrowing an idea from my baby's crawlers I adapted it to my own wet suit; I now have a wet suit with a "trap door". If the reception the idea received from the female contingent of our whitewater club is any indication, gals will be eternally grateful. To create the "trap door", simply split the crotch of your wet suit carefully; most wet suits have a gusset under the leg. DO NOT split on the gusset seams. Cut a new seam directly in the center of the gusset, extending down the leg to just above the knee. Sew, to the back part of the slit, a 2 1/2" wide strip of 1/8" neoprene, the length of the opening. To this extra strip of neoprene sew the gripper half of the velcro the entire length. Sew the other part of the velcro to the inside of the front slit. Make sure you sew completely around the velcro. Next don wet suit and rest assured you will not have to "take it all off" the next time Mother Nature calls.

I have taken a few swims since I modified my own suit and I cannot really notice any difference in the insulating properties of the suit, nor does the velcro seem to bother me at all. The following sketch may help to clarify the procedure for those who wish to create their own "trap doors."
During February 1979, a team of kayakers representing AWA and Canoeing Magazine explored several Chilean rivers. They paddled exciting water in a setting of spectacular waterfalls, volcanoes, glaciers and wildlife. And with the aid of a marvelous, friendly people, they gained an appreciation for this unique land. In three successive articles, AWA will relate their experiences on the Bio Bio, Maule, and Maipu Rivers. Based on this successful trip, AWA will be offering a specially arranged river tour of Chile in January, 1980 – Watch for advertisements.
Crystal clear and cold, the river had not yet displayed the teeth we had all been promised by Sobek Expedition's description of a "dream river actualized." River birds flew overhead in all directions. A little brown duck head popped up next to my boat. ...Boy, was he surprised.

I drifted with him away and thought of my own shock at coming to this beautiful land. Endless overtime evenings in a Manhattan office were shattered on February 7th by a call from Rob Lesser, our expedition organizer. It was time. John Wasson and I hustled down to Miami and finished outfitting the Riverchasers Hollowform had generously provided the team for the trip. Fred Young, our sole C-1 paddler, arrived that afternoon with Chuck Johnsos, an excellent professional photographer.

But the reality of being in Chile on my first kayak expedition came with the hiss of steam from the ancient train from Victoria to Longquimay. Chickens squawked in the coaches, cinders rained on your hat as you stuck your head out the window to watch waterfalls and fields go by.

Lurching to a stop in the middle of nowhere, the train discharged a passenger and proceeded to take on more water. Rob and Chuck couldn't resist an offer to ride on the engine and clambered aboard, cameras swinging, as the "machina de vapeur" chugged up the steep hill. I'll never forget the eyeful of cinders I received when Chuck opened the throttle too fast while I was watching the Andean landscapes fly by. I was really here!

BACK ON THE RIVER

We were getting a bit impatient for action when the first bridge over the river appeared at the base of that class III drop the third day out. Sagging between rock outcrops on both sides of the river, the bridge looked perfect for an aerial flight.

The Chileans stood poised on either side of the kayak, grinning at

The author assaults Cyclops.
The expedition’s paddlers: Rob Lesser, Pete Skinner, Fred Young, John Wasson, and Don Banducci each other in disbelief. Two scruffy dogs watched curiously as our Sobek leader Dave Shore instructed their Chilean masters on proper bridge kayak launch procedures. With a hearty ‘‘VAMOS!’’, the boat and paddler arched gracefully into the green water below. Cheers and waves bid us Adieu as kayaks and rafts moved on down the river toward the lunch spot. Guacamole, tomatoes, Chilean bread, cheese, fruits were standard Sobek Cuisine.

Five days out and things have definitely picked up. The river has taken on the texture of a pool drop river, like the Middle Fork of The Salmon in low water. We looked up at the mountain walls towering 3000 feet above us. The canyon walls closed in and Class IV rapids began to appear regularly. The raft guides’ gleeful smirks and wild stories about “Jug Buster” rapids now took on new meaning. Big water at last.

Suddenly, a muffled explosion and a cloud of dust intruded 500 feet above the river: the disappointing sign of a dam in early stages. When finally built by Chile’s power authority, ENDESA, this dam, and another downstream, will generate 300 megawatts of power, and eliminate all the Bio Bio’s beautiful rapids. Construction begins in 1981. But for now, just ahead foams a big hole below a green tongue which drops about fifteen feet.

We scouted and scratched our heads, planning strategies for running this class IV+ drop. After several kayaks and rafts had successfully negotiated the drop, Oregon paddler Don Banducci, slid down the face of the tongue into the frothy hole. Confident of his hand roll, Don threw his paddle high into the air as he disappeared. The boat mushed out of the froth and we waited several ‘tense seconds for the roll. And several more. Finally Don pop-
ped up, flashing a grin, stroking away, with paddle in hand. Somehow, amazingly, he had been reunited with his paddle at the bottom of the hole, and used it to come back up. Some show.

**THE ASADO**

One night for dinner, Sobek's Dave Shore arranged with a local campesino for an Asado, the typical Chilean barbeque. We watched as Senor Torres, a Chilean farmer, brought into camp a loudly unwilling sheep: still very much alive. On Dave fell the honor of preparing him for the spit.

After hoisting the animal up by a hind leg, Dave tried to slit the jugular and drain the blood. With a little exploration in the matted wool, blood eventually flowed into a pan. Mixed with onions and other herbs, it soon congealed into a pudding which Senor Torres called "nachi". We all tasted this Chilean delicacy and by the look on Dave's face, it was not exactly his cup of tea!

After cuiserating and skinning the sheep, it was off to the bonfire where very hungry exploradores expectantly waited dinner. As the rain trickled out of the sky, darkness found us greedily ripping mutton from the bones we had sawed off the carcass. Fred Young and Senor Torres discussed politics over the last bones as we lay around the campfire thoroughly satisfied and happy.

**KAYAKER'S DREAM DAY**

Only one day of rain had offered a respite from the strong southern sun that had covered hands, noses, and backs with raw, burnt sores. But today all that is forgotten as we face all the Bio Bio's major rapids: Lava South, Cyclops, and One-Eyed Jack. After floating underneath the heavy spray of a cliffside waterfall, dropping from 200 feet above, we hear the noise of Lava South, a 500 foot long stretch of 8 foot cresting waves. Froth and spray speeds downward along a 10 foot wall, pausing only to form tiny eddies behind juts of jet black basalt.

Everyone ran it differently—some backwards, some sideways and some into those tiny eddies, only to slide back into the current for a super surf. After a couple of carries back up to the top for another run, it was time for another lunch of cheese and tomatoes on pieces of "Pan"—a home baked bread, not unlike pita.

(continued on page 25)
Editor's Note:
It could happen to you: Your boat disappears into a foaming hole. You recycle twice, then come out swimming and gasping for air in the frigid froth. As you slosh landward, collecting self and equipment, you note some smiling turkey thrusting a clipboard at your face asking you to fill out some questionnaire.

Resist, for a moment, your impulse to pulverize him with your paddle. This person is an AWA river safety investigator. He has given up his weekend to help with a major nationwide AWA/U.S. Coast Guard/Ohio University safety effort, being managed by Harry Kostes and Donald A. Gordon, two dedicated, river running psychologists.

Thanks to AWA sponsorship of a $56,000 Coast Guard grant, these men are attempting to document why and under what circumstances accidents will befall boaters. Here is their first report to you paddlers. AWA and these men are seeking your support, advice and suggestions. So please let us know how you feel about this report; and if you would like to volunteer for any part of this program, write Harry Kostes or Don Gordon, Psychology Department, Porter Hall, Ohio University, Athens, Ohio 45701.

THE BOATING ACCIDENT PROBLEM
It was early March, and the long cold winter had ended. Swollen rivers, now populated with eager boaters signaled the change. It was our first canoe trip of the year, a leisurely cruise in an open boat on Ohio’s Rocky Fork Creek. Spectacular rock formations glided by our boat as it floated on quick, but flat water. Near our take-out the Rocky Fork joined Paint Creek, another little known stream which may be paddled only a few weeks a year. From previous experience we knew that several hundred yards below the confluence, the river narrows and tumbles over a series of ledges. Normally, standing waves in this section are 2-3 feet but today, however, new recent obstacles, heavy rain and melting snow had changed its character.

We scouted, and then ran it. After successfully punching through cavernous holes and some 12 foot walls of water, we recognized our skills and endurance had been tested to the limit. Had it not been for our previous experience on this river, our scouting, and the advice of other paddlers received earlier in the day, we may have taken a swim in the chilly waters of Paint Creek, possibly with tragic results.
This point was driven home to us as we gathered up our equipment at the take-out. A local deputy sheriff approached to ask if we had seen a stranded boater on the river. A capsized boat had been spotted a few miles downstream and it was feared the boater or boaters had drowned. Concerned, we located other paddlers in the area who had seen a solo boater on the river earlier that day. Since he had been alone, and appeared to have little appreciation for the river's character, he was invited to join a number of paddlers planning to run the river in a group.

He had refused. He was warned by the other paddlers that a solo boater in an open canoe possibly could not power through the large waves above the ledges. He was not deterred. He was informed that he would likely swamp and overturn in the turbulent section, a possibility augmented by the lack of floatation in his boat. He had persisted.

After about four hours of considerable effort and concern by both local authorities and other boaters, the paddler was located. Fortunately he had experienced merely a long cold swim followed by a long cold search for his boat. He was reunited with his boat, dried out and sent on his way.

This is a description of a boating accident. The fact that it resulted in neither serious injury nor death makes it no less an accident. Unfortunately, the lack of such tragic results merely insures that we don't learn of such incidents. The accident in this case was caused by a lack of good judgment on the part of the boater. However, this is a general explanation and requires clarifica-
What is good judgment, after all? How can it be recognized?

**RESEARCH IS NEEDED**

Judgement is the most important, but alas, most intangible piece of equipment the boater carries. Sitting as an observer, we cannot see it. We can only record behavior, and from that data, work to infer that elusive quality.

Clearly, one's safety on the river depends upon what he does. Both for experienced and inexperienced boaters. Of course, we would expect experienced paddlers to exhibit more skills than inexperienced boaters. But skill and good river judgement hold no correlation, nor is assinity restricted to any experience level.

Since we cannot measure judgement, the purpose of this study must be to improve paddling's safety record by studying and defining exactly what behaviour will increase the chance of a boating accident. This entails a study of the human factor: probably the largest contributor to boating accidents. For activities like driving and high risk occupations, behavioral research is an already proven tool in accident prediction. Such research is possible, and necessary for boating. It can help determine future safety courses and training as well as characteristics of boating equipment.

The day has arrived. Under the sponsorship of the American White-water Affiliation in conjunction with Ohio University, the Coast Guard has agreed to support a program to evaluate human factors relating to safe and unsafe boating. The program, known as the American White-water Affiliation Research Effort (AWARE) will begin this spring and continue for one year. Its objective is the identification of behavioral and personality characteristics of safe and unsafe paddlers. We will determine if peer evaluations of safe boating practices are valid measures, and also determine the kind of paddling characteristics these evaluations can predict. In other words, on what do our fellow paddlers focus when they are asked to judge how safe an individual paddler is? It is expected that the results of this research will lead to the development of different kinds of whitewater paddling training geared to the attitudinal and behavioral characteristics of particular groups of paddlers. Training programs might focus on those behaviors and attitudes that our studies indicate are most likely to lead to accidents. For example, paddlers might be trained to accept responsibility for spills rather than blaming them on bad luck, the river, or their equipment.

In the course of this research program, we will be collecting attitudinal and behavioral data from canoe and kayak paddlers on frequently used rivers nationwide (Mid-Atlantic, Southeast, Midwest, West Coast). The rivers to be studied contain Class II to IV water and are paddled by those ranging in ability from beginner to expert. We will also collect information through the mails with the help of various paddling clubs. Participation in the research (continued on page 24)
Teaching a club’s beginners is a wincing obligation that usually falls on a few sacrificial suckers. Traditionally, the leader can never roust enough experienced members to match the new and eager hoardes. The weekend soon degenerates into a scarcely safe float trip that all vow to avoid next year. But this club annually offers an instruction weekend that’s both educational and popular. Here’s what they do and how they do it.

The New York Chapter of the Appalachian Mountain Club offers a Class 2 Canoe Instruction trip in mid-March, comprised of two days on river and an evening of instruction and discussion. Prerequisite is attendance on at least three Class 1 or Brown Water trips the previous season and good knowledge of strokes, plus a genuine interest in the sport.

The format of the trip is set up on a one-to-one basis with one instructor to each student. We employ Class 3 and 2+ canoeists as instructors. The Chapter has some 20 open boats available, these are divided into five autonomous groups of four boats each for running the river. Open boats are used for instruction at this level because it is felt all the basics are better learned in double, open boats. It offers one-on-one instruction and demands a commitment on the part of both novice and instructor. On the second day, some of the more experienced instructees solo. Since each group runs independently, consideration is given to car-topping ability when groups are made up and we arrange to have one or two extra cars and drivers available to help with the shuttles.

While the shuttle is gone, one instructor takes the novices along the riverbank, pointing out basic features of the water.
We are fortunate to have a short run on the Shepaug River that provides rock dodging, several tight turns, many eddys, and all the obstacles that arise at greater difficulty on higher class rivers. The first day we run the course twice — allowing the student to see what was missed the first time, and to correct mistakes. Students are encouraged to find the eddys and practice eddy turns and sets as often as possible.

When the groups are assembled a great deal of thought is given to personalities, family groups, friendship associations, etc. To enhance team effort and trip popularity in the case of instructors, we do put husbands and wives and friends in the same group. Each instructor paddles with each student in the group for a half day. During the weekend each student will have paddled with four instructors, who will evaluate their progress and will rate them at the end of the session.

Although we all teach the same things, each explains in a different manner, and uses different techniques. This variety, tends to reinforce and clarify.

We do not, however put students of one family in the same group. Besides the distraction of getting involved in the other's performance, different groups gives one family even a wider range of instructors to learn from vicariously. And discussions in the car, going home, do enlighten.

After the first day's run we repair to indoor facilities where people can clean up after a rigorous day of braving the elements (and we do have all kinds of weather in March in Connecticut). With a few drinks and a refreshed attitude both students and instructors spend an hour or so chatting before dinner. Students get a chance to discuss problems in detail with all the instructors. Very often the light dawns during these semi-social periods; and, on the other hand, the instructors get a chance to evaluate students' comprehension of what they learned during the day.

In the evening after dinner we show the excellent awareness film, "The Uncalculated Risk," along with a short training film. This introduction to the evening program gets the students back on the river, then we discuss river currents and water reading. As a visual aid, on the floor, we lay out a river using two pieces of rope as river banks, rocks and paper arrows to indicate water flow. We are able to create all conditions that the canoeist meets and by moving rocks and arrows as well as the rope banks we can better describe conditions to answer questions.

The second day we rerun the same section — often water conditions have changed and students are able to get a new look at the river.

(continued on page 28)
White Water: RUNNING THE WILD RIVERS OF NORTH AMERICA
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OBED ENDANGERED
(continued from page 9)

HERE’S WHAT YOU CAN DO:
1. Write to:
   Commissioner Tuck
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   2611 West End Avenue
   Nashville, Tennessee 37203
2. Urge her to reconsider her decision on the stripmining moratorium within the Obed watershed.
   Stress that this is a national treasure and a national issue.
3. Send carbon copies to:
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   Washington, D.C. 20501
   Governor Lamar Alexander
   State Capitol Building
   Nashville, Tennessee 37219

WILD & SCENIC FOR COLORADO’S POUDRE?

The Colorado Whitewater Association writes that the U.S. Forest Service, with support from the Colorado Dept. of Natural Resources, has recommended that the Poudre River is eligible for inclusion in the Wild and Scenic Rivers system over its entire length. On March 21 representatives of the Forest Service explained their findings to the public in a meeting in Fort Collins. They proposed four alternatives for classification of the river based on segmentation of the river into parts.

At this time it is most important that the Forest Service and our politicians receive support for "Alternative A". If we spend some effort to write letters now it will save much screaming and tearing of hair later. So please write a short letter to the address below asking that "Alternative A" be adopted. Please mention that you use and enjoy the sections of the Poudre under consideration and that you feel that they possess great recreational (kayaking, canoeing, fishing) potential. If you write a letter now, no matter how brief, it may save a pile of trouble in the future; if the Gunnison River had been classified as a recreational river, Crystal Dam could not have been built.

Forest Supervisor
Arapaho & Roosevelt Nat. Forests
Box 1366
Ft. Collins, Colorado 80522

CLASSIFIED

21 FOOT KLEPPER FOLDING KAYAK.
2 seater—Aerius— with 2 large nylon sails.

A.W.A.R.E. Report
(continued from page 20)

is, of course, voluntary, and all participants will receive a t-shirt emblazoned with the AWA logo.

Your suggestions and ideas would be welcome particularly to those relating to specific behaviors and attitudes you feel are good predictors of frequent spills. Please write to us at the Psychology Department, Porter Hall, Ohio University, Athens, Ohio, 45701. Your support, should you see us on the river, is needed. Increasing the knowledge of the psychology of river safety is in the interest of all of us. We will keep you posted about the progress of this research in future issues of the AWA Journal.
Lunch only whetted our appetite for more rapids. Cyclops came next. The river widens out to about 500 feet and tumults down boulders into a tiny pool. Here it hits a wall, caroming off at right angles. In the midst of this Class IV drop, looms the big eye of Cyclops—a 5 foot rock with a spectacular rooster tail of water pulsing from its crest.

Boats avoided this rock like the plague, only to find themselves swept into the tortured turbulence and pillowing waves against the wall. Almost flipped a raft there but all went on without catastrophe.

From there, the canyon necked down again and we heard the thunder of rock blasts for Endesa’s Dam #2. Then One-Eyed-Jack came into view, replete with flow-gaging stations and survey markers. Through the gigantic rock walled cleft in the mountains, 6000 CFS of Bio Bio poured down 30 ft over four distinct drops. On the right side a huge boulder split the flow, forming an alternate channel.

We spent four hours here scouting the drop and running it one by one. Kayakers and C-1’s had little trouble, but the rafters did not fare as well. The ledges formed complex patterns of straight drops and small recirculators which made maneuvering difficult. Two rafts elected to follow the wall on river left and drop off a truncated 8 foot ledge sliding by two holes. The other two rafts headed behind the big rock.

Ten seconds went by and raft
(continued on page 29)
strength, skill, experience and luck I could call on. And yet, it seemed as if I were no longer a paddler, but a passenger. I wasn't really paddling at all. Reaction and instinct worked double time and any stroke that registered was already history. I watched in detached amazement.

... I was no longer a paddler, but a passenger. Reaction and instinct worked double time.

The river relented to Class IV, and after an unintentional backwards drop, I pulled into a left eddy beside Tim. Jim was twenty yards downstream on the right.

As we waited for Chuck, I slowly realized that I was scared stiff and even considered taking out - results of a self-induced adrenalin overdose.

Some forced deep breathing helped clear my head. But by the time Chuck appeared, first upside-down and then swimming, I still wasn't quite ready to resume paddling, and certainly not as part of an exacting, dangerous rescue effort.

Timmy started after Chuck while Jim went for the boat. I stayed behind as back-up. Chuck grabbed onto a mid-stream tree just above the first R.R. bridge, then used my throw rope to reach shore. Jim and Tim made a last try at grounding Chuck's boat, but gave up lest we all be separated. Chuck, in surprisingly good shape, headed off on foot to find our shore party.

We re-grouped downstream, where Tim explained how to run the low-but-grabby gauging station dam. We listened and went for it. At this level, though not yet washed out, the dam was a piece of cake.

The river had flattened considerably and we were relaxed and feeling good, bobbing along with the swift current. Rounding the bend after the bridges, we came across a strange sight: Chuck's boat, virtually undamaged, sitting high and fairly dry on the left shore. How it got there only the river gods know for sure!

Turning parallel with I 287, we rode a roller coaster ride and waved to spectators who stared down at those lunatics running this river in January. But the river got busier and busier, and before long had our attention fully riveted to the water.
I was paddling sweep and squinting hard into the sunlight. I could see no one... did I pass them... or miss someone in trouble?... Wait!... a paddle? Yes! And the tip of a boat! Omygod!... are they both stuck in a hole?... no eddies around... and I'm going to come crashing in on top.

Jim came shooting out of the river bottom like a sick Polaris missile, and headed downstream, attempting to roll. What did it to him?... still no eddies... guess I'll find out soon enough... big smooth wave doesn't look bad... Timmy's not stuck in here, thank God... down the drop and up the face... smooth... oops! pushed sideways at the top... all hell breaking loose!!... high brace right, sinking... Oof!... lowbrace left... Thrash! high on the right again... and I'm in the middle of a smooth but muchu unstable boil. A glance over my shoulder fails to make any sense of the white confusion, but Jim is still upside down and washing over a gravel bar with some small trees. He gets out, avoiding trees and jagged, uneroded boulders of this man-made segment.

After what seems an eternity, my leaden arms paddle over to Jim, being swept downstream. (Where's Timmy?)

The river steepens and, afraid of hurting Jim more than helping him, I back off and float alongside. (Come on, Tim, I'm gonna need help! Hope you're okay). It levels somewhat, and Jim, still with his boat, is holding my stern as we head for the right shore. A rare eddy appears and we go for it. I haul myself in, but Jim is still out in the current. Jim realizes the situation. Three feet from shore, but still in the current, he lets go. I can only float along to another small eddy with a jutting tree branch. He gets boat and body in, while I find a niche below and work back upstream. By the time I reach him, Jim is on shore, but semi-frozen and tugging on a boat half full of water. Finally, together, we haul it out and Jim flops onto the grassy highway embankment, finally able to regain his wits.

At last, Tim appeared, paddling by from upstream, having taken out to remedy a popped sprayskirt. He now headed toward the backwater of the reservoir, just below us, to retrieve Jim's paddle. He took out to bring the paddle back, but his boat slid on the snow and glided out onto the reservoir, solo! A cooperative wind helped it back, and no further "rescue" was needed.

Rivers Need Friends!

Join FRIENDS OF THE RIVER
401 San Miguel Way
Sacramento, CA 95819
(916) 451-9955

Send a self-addressed, stamped envelope for more information.
Jim decided that the walk down would help warm him, and so retrieved his own paddle. Amazed at myself, I was feeling fantastic! While Jim put back in, I played the last river-wide wave above the reservoir, although not too aggressively. To provide a thoroughly ignoble ending to his foreshortened effort, Jim slipped as he put in and sent his boat on down alone! The (illegal) paddle across the tail of the reservoir was nothing, but the waiting warm cars were heaven.

To the uninitiated, this trip may sound disastrous. Granted, on this day, Chuck was not up to paddling but went ahead anyway. A bad move. Yet the cruncher that got Jim looked so innocent and could have gotten many boaters. Nonetheless with all boats and bodies virtually unscratched, this trip went better than many, maybe most. The river gods must have been out to lunch!

But not quite . . . Two weeks later, at Tom Daniel's house, a small yellow envelope arrived in the mail with . . . movie film! The Gorge!! Excitement mounted as we set up the projector and started the roll. And there it was: somebody's yapping French poodle, jumping around a Christmas tree!!! Curses!!! The river gods get the last laugh, after all!

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**INSTRUCTION**

*(continued from page 22)*

We continue down stream on a new section of river offering new water reading experiences and a chance to relate what was learned to previous day and evening to actual conditions. Some students feel they would like to solo and opportunity is provided with the instructor shepherding and instructing from another boat.

All aspects of canoeing are taught during this session — strokes are refined, maneuvers such as setting, ferrying, eddy turns, and sets are explained and practiced. Conditions of, and safety concerned with upsets and swamping are discussed. The training is confined to Class 2 level of canoeing with the attitude of laying a good solid foundation for advancement and thorough enjoyment of the sport.

Every aspect of the weekend contributes to its success, but the most important elements, we feel, are the one-on-one teaching and teamwork with a variety of instructors.

All this seems like a lot of intensity and effort. But in fact it is one of the most social and popular weekends in the schedule. It is traditionally the ice-breaker kickoff trip that no veteran wants to miss. In past years, we've even been top heavy with instructors.

Like any project, it takes effort and planning, and you've got to be prepared for one or two lean years at the start. But it does work, not only as an instruction tool, but as a major attraction for the club.
CHILEAN IMPRESSIONS
(continued from page 25)

#1 finally appeared, wallowing, full of water. Just as the last passenger clambered in, it disappeared into one of two humongous holes. Thanks to the water it bore, the raft didn’t flip. However it was all we could do to tug the raft and its tons of water to shore before the next drop. The second raft did a bit better but we all had to hustle to catch it before the brink of the next falls. Ah, the Bio Bio has class!

SCALING CALLAQUI
One morning, after camping beneath the volcano, some of us decided to conquer this 11,000 foot peak. It was here, we discovered Chilean life in the Andes. We saw wagon wheels made from cross sections of trees.

In tiny thatched roofed barns and houses, considered only shacks in the USA, friendly, hard working campesinos eked out an agrarian existence. Flowers and vegetables grew everywhere and sheep, goats and cows interrupted their grazing to watch us pass. Somehow I got split off from the rest of the hikers.

Bushwacking upwards on old lava ridges through ancient monkey tailed pines, I eventually came onto the treeless slopes. The summit rose 5000 feet above me.

I made a vow to get to the snow before turning back. Stopping only to rest and gobble up little blueberries on route I trudged upwards, looking for the rest of the group. Finally I found their tracks... on the snow I had made my goal. The wind was blowing 40 miles an hour and clouds formed and disappeared over my head. I snapped some photos and headed back down to camp some 8 miles away. I arrived just minutes behind the rest of the group as the darkness fell and dinner was ready.

Days passed like the stones on the bottom of the river under our boats, swiftly but without fan fare. After One-Eyed Jack we knew the end was a couple of easy days paddling away. We lolled on the rafts, taught passengers and boatmen eskimo rolls, and ate up the food greedily. The canyon gave way to trees and fields and the crisp air and silence gave way to the rumble of a truck now and then and the smoke from crop fires. We were coming back.

Arrival in Santa Barbara was marked by press coverage and a spectacular meal with the "alcalde" or mayor of Santa Barbara. We consumed a few too many bottles of the three star wine of the region: 75 cents with a bottle deposit of $1.50! We all fell asleep on the bumpy ride to Chillan. It helped dull the sadness of finishing the first leg of our South American journey.

As I dozed and jounced, my mind slipped back to magic rapids and magic evenings spent at hot springs, on the black sand beaches, and beneath towering volcanoes. This was the first of many times I vowed I would soon return. Viva La Sobek! Viva La Chile!
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Silppery Rock, PA 16057

Cruisers

Insignificant Boat Movement

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Denville, NJ 07834

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Mason-Dixon Canoe Cruisers

c/o Ron Shanholtz
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18505 Kingshill Rd.
Germantown, MD 20767

R M Outfitters
Maurene Hufford
2534 Teague
Houston, TX 77080

Raw Strength & Courage Kayakers
Jerry Gluck
2185 Mershon Dr.
Ann Arbor, MI 48103

Rogue River Outfitters

c/o Chuck Schlumberger
8890 Rogue River Highway
Grants Pass, OR 97526

Rutgers University Outdoor Club
Rutgers Post Office 2913
New Brunswick, NJ 08903

Sage—School of Outdoors
205E High St.
Lexington, KY 40507

Sewanee Ski & Outing Club

c/o Doug Cameron
Univ. of the South
Sewanee, TN 37375

Sierra Club
John Mult Chapter
Rosemary and David Wehnes
3261 No. 87th St.
Milwaukee, WI 53222

Slippery Rock State College
Co-op Activities Committee SGA
Slippery Rock, PA 16057
As a Member of the American Whitewater Affiliation, dedicated to the sport and adventure of whitewater paddling and to the saving of wild, free-running rivers, I will receive the *American Whitewater Journal* bimonthly, 6 times a year. My options are checked off below, and my check or money order is enclosed.

- **Membership for one (1) year**: $10.00, foreign $11.00.
- **Affiliation of our club for one (1) year**, includes club listing in *AWA Journal* plus one (1) copy of each issue: $12.00, foreign $13.00.
- **Specified back issues**: $1.50 each or 6 for $6.00.
- **Index, 1971-1978**: $1.50.

**NAME**

**ADDRESS**

**CITY** .................................. **STATE**  ____ **ZIP CODE**  ______________

Name of Club .................................................................

*Mailed to: AMERICAN WHITETRER, P.O. Box 1483, Hagerstown, MD 21740*