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American WHITE WATER is mailed to all members of the American White Water Affiliation in May, August, November and February. Membership is open to all who are interested in river sport, for the sum of $2.50 per year.

The magazine welcomes contributions of articles and photographs, but assumes no responsibility for them. Address all editorial material to: Dave Stacey, 601 Baseline Road, Boulder, Colo. Correspondence concerning the Affiliation or boating information should be sent to the secretary, Dr. Oscar Hawksley, Central Missouri State College, Warrensburg, Mo.

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COVER—Summer on the lake—Wisconsin Conservation Department
The American White Water Affiliation

We are many individuals who wish to promote river touring, and to keep informed about wilderness waterways and the ways of white water.

We are an affiliation of outdoor groups, outing associations, canoe clubs, ski clubs, hiking groups, all interested in river touring for our members. Our groups range from the Appalachian Mountain Club in Boston, to the Washington Foldboat Club in Seattle. These groups have pioneered in developing river know-how. They are the local sources from which flow the currents tributary to our growing sport. Through group representatives, the knowledge of all is made available to all.

We are a non-profit organization. Our organizational simplicity permits all dues to go directly to the building of our magazine and services.

OUR PURPOSE
To encourage exploration and enjoyment of wilderness waterways; to foster research, development, and teaching of improved techniques and equipment designs for safely negotiating white water; to protect the wilderness character of our waterways for the growing number who are discovering the rewards awaiting the river tourist.

OUR PUBLICATION
All members receive our quarterly magazine "American WHITE WATER." which is a voice for all American boatmen. You are urged to contribute articles, pictures, cartoons, information and ideas (ideas to increase the fun of our sport and ideas for improving our services to you).

MEMBERSHIP
Membership is on an annual basis with the new year starting in March.
Tell your friends who might enjoy canoeing or canyoneering about the AWWA. Their $2.50 will help foster enjoyment of wilderness water and bring each into the boating fraternity through the pages of American IVHITE WATER magazine.

COUNT ME IN
as a member of the American White Water Affiliation. As a member I will receive issues of American WHITE WATER magazine in May, August, November and February. Here is my $2.50. My address is

Type of boot preferred:_________________________________________________________

Booting club membership: ____________________________________________________

Suggested articles: ____________________________________________________________

Mail to: American White Water Affiliation, 1576 S. Meade St., Denver, Colo.
American White Water Affiliation
5525 E. Bails Drive
Denver 22, Colorado
Gentlemen:

Being a little too old for active participation in white water sports, I have maintained membership in your organization mainly as a gesture of support of your conservation activities.

Recent items in "Conservation Comment" and correspondence with your Mr. Bradley, convince me that your policy is so strongly slanted to the political "left,"—such as favoring a government (tax-payer) financed dam in Hell's Canyon, and giving up opposition to the Glen Canyon Dam, that I do not care to continue my membership.

Yours truly,
Hallon N. Marsh
16342 Prudencia Drive
Whittier, California

I don't know about Dan, but let's hope the Boulder Republicans don't hear about this. Ed.

University of California
Department of Physical Education
Los Angeles 24, California
14th March, 1958

Dear Mr. Stacey,

Immediately upon receipt of your letter, I commenced to write the article you had requested. This, especially so as everyone connected with WW has been so helpful to me since Bruce Grant "sent the message."

It did not take me long to realize that vital changes are taking place at home which will affect the sport a great deal. The Snowy River Hydro Electric Scheme (upon which some American engineers are working) will open up the snow fields to motor transport and give access to the upper rapid portions of the snow fed rivers. Our rivers close to the bigger cities are being "ironed out" with dams. We have had no slalom events because there is no accessible river upon which the event could be held.

Ruth A. Walker
2441 Webb Avenue
Bronx, New York 68
LETTERS (Continued)

Also the fibre glass boat is going to alter and improve the sport. In the past it cost seven weeks wages to buy a fifteen foot Canadian canoe; the same for an imported K1 foldboat. Timber had to be imported for home made canoes or kayaks of any worth. The fibre glass craft has proved to be only half the cost and this must bring more people into the sport.

I have written Air Mail to Joan and Harry Savage of 159 Slade Road, Bexley North, NSW, Australia. These two people have put more into the sport than they could ever take out and I would like them to have the privilege of writing the first article for your journal.

I have told them of the journal, given them your address so that they may write direct to you. It takes only three days to reach Australia and I am sure they will do the job and include photographs for you. (It may appear like the passing of the buck, but I think it perhaps ethical to ask Joan and Harry first.) There will be no doubt about the article being written as I have asked them to let me know if they cannot do it, then I shall.

Your journal is not only a contribution to White Water in general, but demonstrates a high standard of editorship. I have already subscribed through Clyde Jones, and have written home about it.

Have been invited to call upon the McNairs in Pennsylvania and hope to get in touch with a Foldboat club in L.A. soon.

Very kindest regards,
Frank Whitebrook
6255 Chabot Rd. Oakland, Calif.

Dear Dave:

Winter 1958 page 16: The photo of Dick Stratton starting a screw roll looks like the beginning of a screw roll O. K. However, the photo at the right on page 17 is not the finish of a screw since in the screw roll the hands remain in their normal position on the paddle shaft whereas in the photo used Dick is gripping the end of the blade with his right hand. Therefore, has to be one of the several long methods.

Bruce Grant

Dear Dave,

Please note my new address above, which is in effect for the duration of the summer. After that I will probably move back to my old address, Box 71, Rutledge, Pa. (I will advise Dr. Hawksley.)

What I wanted to ask you about was whether you know of anyone else in this country who owns and uses pontoons for going down rapids. I have made several pair and am having loads of fun with them, and so does everyone who tries them. They are made of Fiberglass, are ten feet long, are worn one on each foot like water skis, and are paddled with a double paddle. They are almost as maneuverable as a foldboat. Bob McNair promised to write an article for AWW so I don't want to say so much that it will detract from his article. Trouble is, he wants a good picture of me or someone going through a good stretch of white water with them on, and I don't know of any time I will be near good W.W. this summer when I will have the pontoons along. I would like to see this sport spread in this country. To that end I have made a mold and am going into limited production of a new streamlined design of pontoon, the fourth design of a series of evolutionary models. I'd like to get in touch with someone who would like to make them because I will have to go back to work one of these days. (I am a helicopter engineer.)

I am thinking of some of the reasons why pontooning is so much fun. They are so responsive, both to the currents they are taken through, and to the stroke of the paddle. (They only weigh 15 lbs. apiece) The person doing it is standing up where it is easier to read the water. When it gets too shallow to float, one just picks up one foot and then the other and walks right across the bar. And then it looks so dangerous!

Sincerely yours,
John Burkom
Buck Ridge

The idea of pontoons has intrigued many people. However, relatively few have tried it. Will anyone having information on the subject, please write to John, Editor.

American WHITE WATER
Dear Clyde:

Thanks for those two back issues. I was unhappy at the thought of an incomplete set.

We’ve been having lots of water this spring, so our trips have been fine. The slalom on the West River last weekend was grand—plenty of water and a fine collection of people from Washington, D.C., Toronto, and points between. No Westerners though.

George Rentonnis and I didn’t feel too badly at coming in second to the McNairs in the C-II class.

I’m working on getting our people to join the A.W.W.A.

Good boating to all of you out there.

Yours,
Louise F. Davis
605 Hudson Street
Hoboken, New Jersey

Arizona Highways

For many years this publication of the Highway Department has been appearing in homes and libraries across the country. Without question, it is one of the finest portrayals of the outdoors ever published in this country. Its photographs are fabulous and its articles are well-written.

The June, 1958, issue describes the Colorado River. Seldom, if ever, have so many beautiful photographs been assembled on the subject of a river. Among them are several by our friends Weston and Jeanne Lee.

One interesting series of color photographs were taken from the air. The first starts in Colorado at the Granby Reservoir. This is only a few miles from the source of this magnificent and mighty stream. The flying photographer follows the river’s course through Glenwood Springs, Grand Junction, Moab and the canyons of Utah. Then comes Lake Meade, Parker Dam and the outrun in lower California.

For reprints of this beautiful issue, send 40c to AKIZONA HIGHWAYS, Phoenix, Arizona. Once you have seen it, you may want to subscribe continually. The price is $3.50 per year.

From Your Editor

In this issue, we reprint Zee Grant’s story of how he ran the Grand Canyon in a Foldboat. This tremendous accomplishment was very carefully planned, even to the extent of constructing a special boat. She run was executed with great skill, and the use of a pick-up boat removed most of the hazards.

In the eighteen years since this feat, kayak techniques have improved dramatically. The trend has been away from boats with stable hulls, with balance now supplied by various forms of paddle-brace. One wonders how experts like Walter Kirschbaum or Koger Paris would do on this run.

When February rolls around, we will be putting out Issue number 4, of Volume 4, of American White Water. It seems only a short time ago that your present editor put out Issue No. 4 of Volume No. 1—yet three years have passed in the process. Three years is a long time. During this period, the membership of our affiliation has increased by leaps and bounds. The format of the magazine has stabilized and the editorial slant has been that of your present editor.

Growth is good and so is stability. However, a young organization like ours needs change in order to improve. With one man doing the selection of articles, it is only too easy to become stereotyped.

The editing of this magazine is an interesting and challenging job. You are in touch with the top boaters of the world and get to know them personally. You meet some of the most interesting people you can imagine. There is a genuine thrill of accomplishment in turning out this tribute to our sport.

In order to hand on the magazine to men with different ideas and different regional preferences, your editor is resigning after the publication of the November issue. The Executive Committee is now actively seeking a man, or group of men with the needed capabilities and enthusiasm. If you have an interest in this position, please drop a line to Oz Hawksley (Central Missouri State College, Warrensburg, Mo.)

Dave Stacey
Editor
Cockleshell on the Colorado—Through the Grand Canyon in a Foldboat

written and photographed by ALEXANDER G. GRANT, JR.

American White Water is pleased to present an article on one of the great white-water exploits of all time. "Zee" Grant made this fabulous run through the Grand Canyon many years ago. It appeared in Appalachia shortly thereafter, but is now unobtainable. With the kind permission of the author, and the editors, we now reproduce it for you.

The deeper one delves into the subject of quick-water navigation, pouring over maps and papers in search of greater adventure, the more one hears the voice of the mighty Colorado River of the West. Future adventurers may find its peer in the fabulous cataracts of the Orinoco, or the misty thunder of Himalaya valleys, but no stream could have more appeal for layman and boatman alike than the silt-laden sculptor of a thousand miles of varied gorges culminating in the Grand Canyon. Its influence on the history of southwestern United States, as an almost impassable barrier to civilization, unexplored from the time of its discovery by Cárdenas in 1540 until the expeditions of Major John Wesley Powell in 1869 and 1871, can not be overestimated. The awe-inspiring immensity of the abyss is made doubly impressive by the vari-colored walls, so clearly showing the history of the earth.

The great rapids, whose power carved the mile-deep defiles and make their passage by ordinary means impossible, are the cornerstone of the Colorado's fame. The four-thousand-foot drop from Wyoming to Lake Meade, Arizona, is chiefly concentrated in three canyons: Lodore, Cataract, and Grand, of which the last is by far the longest and most dangerous. In the 234 miles from Lee's Ferry, Arizona, to Lake Mead, above Boulder Dam, there is a descent of 2000 feet. The danger of such a gradient, by no means difficult on smaller streams, lies in the great size of the Colorado, and the frequent barriers made of boulders washed out of side canyons to form a series of cataracts alternating with smooth water. Precipitous rock walls effectively prevent a shipwrecked boatman's escape.

Frequent trips on New England streams interested me in the possibilities of western rivers. In successive summers I found increasing excitement in the Salmon, Green, and Middle Fork, following which the Colorado captured my attention.

During early preparations, it was hard for me to avoid fancying that the dangers of the river had been exaggerated. Blithely, I made plans as if for a Sunday afternoon trip. After all, the river did not drop very steeply, and sixteen times men had gone down in clumsy rowboats. Of course, an equal number had met disaster, and the only foldboats ever to try the entire Colorado had stopped at Lee's Ferry after a series of serious crack-ups. But this I ascribed to inexperience, faulty equipment, and high water. I had had a taste of Colorado rapids in the Canyon of Lodore two years before, and had found them not too difficult in very low water, which was the stage in which I planned to go from Lee's Ferry to Lake Mead.

It was unquestionably advisable to find companions, since a solo expedition is lonely, dangerous, and unproductive of pictures. In the summer of 1940 I got in touch with Norman Nevills, acknowledged to be the Colorado's great navigator, who had made the run twice, and was planning another trip in 1941. At first Nevills hesitated to have anything to do with so frail a craft as a foldboat, but later, with the understanding that he and I would be separate parties, not responsible for each other, traveling together for mutual convenience, he agreed to let me join him. Norm insisted that we go during high water, so that his heavy boats would not pound on rocks and have to be rowed in the sluggish current of a low stage.
knot current and twenty-foot waves found only with a flow of 20,000 cubic feet per second or more.

This disclosure, and the opinion of the manufacturer of foldboats that it was most doubtful if any light boat could survive the huge waves, caused me certain qualms. However, it seemed more than likely that, in a wide channel, a maneuverable craft could avoid the hideous mountains of muddy water that pictures of former expeditions were forcing up my notice. (Only on the river did I learn that in the great majority of the Colorado rapids, such dodging is impossible.) I proceeded with my plans.

The safest course seemed to be to make for this voyage a special vessel incorporating all the good features of the standard foldboat, such as flexibility, compactness, and case of repair, yet far stronger, more maneuverable, more buoyant, and more stable fore and aft as well as laterally. The result, constructed from my sketches, was like nothing ever seen afloat before: a sixteen-and-a-half-foot, folding, rubber-covered battleship. I named her the Escalante, in honor of the explorer-priest who made the first crossing of the river. Bulbous ends carved from balsa wood and huge sausage-like sponsons along the sides, made from inner tubes of Fifth Avenue bus tires, contributed to her clumsy appearance. Yet with her extra sheer, the tremendous strength of her special construction, the buoyancy of the sponsons and eight more inner tubes and five beach balls hidden inside the hull, the Escalante was definitely a good sea boat.

The wettest western spring in years added excitement as July 15, our starting date, approached. From the rain-streaked windows of the transcontinental train I could see every stream in flood. Nevills greeted me ecstatically at Thompson's, Utah. Never, said he, had the river been higher in July. He and his wife Doris were somewhat puzzled as to the whereabouts of my boat. When I pointed to the two blue bags that had come out under my pullman berth, only their silent expressions gave a clue to their thoughts.

The drive through eastern Utah to the Nevills' home at Mexican Hat, Utah, and then on to the Colorado at Lee's Ferry was an unforgettable experience. The
wonders of nature were a soothing distraction from talk of the river, on whose horrors Nevills had now begun to dwell incessantly. Before his first expedition, Norm, who lives, thinks, and breathes rivers, had read every book on the subject and could reproduce from memory the government survey maps of the Canyon. His home-built boats, beautifully designed and carefully made of strong plywood, were seaworthy. Despite a hundred dose shaves, Nevills himself has never capsized, a truly remarkable record. Of the chances of my Escalante, he would make no statement, except to mention the high percentage of drownings in swimming in the rapids.

At the site of John D. Lee's historic ferry by the mouth of the Paria River, our expedition assembled, ready to embark. Nevills had two cataract-type wooden boats: the Wen which he piloted, and the Mexican Hat II with Dell Reed, adventurous gold miner of Mexican Hat, at the oars. Two men, Hill Schukraft of Chicago and Weldon Heald of Altadina, California, were to be passengers in the cataract boats.

Although the maps showed no sizable drops for several miles, the river was by no means at ease. Its muddy waters, "too thick to drink, and too thin to plow," were sweeping along in a thousand conflicting currents. Downstream, a distant grumbling came from where the current ran into the cliff. Although there seemed to be some ugly four-foot waves, Nevills would dignify them with no better name than a riffle. In this section and others like it, my kayak jumped around a great deal compared with the big boats. The chop flipped up first one side-tulle, and then the other, so as to cause considerable doubt as to the value of these appendages. Later it became obvious that they were a necessity, for if a wave tended to raise one side, the other sponson would, in the absence of rocks, act against this. Without them no boat of narrow beam can be safe in heavy river surf. Moreover, the added safety factor of their buoyancy is immensely helpful in whirlpools, which are a very real danger on the Colorado in high water.

The kick of these preliminary riffles was most disquieting to me. The Escalante's wave-splitter, like an eight-inches-high wooden windshield, rigged on the deck in front of the cockpit, was already proving its usefulness in breaking the force of the water coming over the bow. The current was very swift, even where the water was smooth, giving the impression that ever heightening walls were rushing by our
stationary boats. Half an hour after starting, we passed under the Navajo Bridge, hanging like a cobweb far above. Waving goodbye to friends who had come to see us off, we entered the realm of the inner canyon, known only to river rats.

We landed just above Badger Creek, the first rapid. It is fortunate that although the cliffs frequently rise sheer out of quiet water, at the major drops there is nearly always a place to disembark and proceed along the shore. This is usually a part of the same bar of rock which was washed out of a canyon to form the rapids. On approaching a difficult stretch, where no open channel was apparent, we would always land far enough upstream to be able to reach the opposite shore if necessary before the lip of the rapid. After the best route was decided upon, the boats ran through, one at a time without passengers. This system made available an emergency rescue force and furnished an opportunity for photography.

Badger is a typical Colorado rapid. From where we landed, a considerable distance away, it did not look particularly dangerous. This is true throughout the Grand Canyon because of the gigantic scale of the surroundings and the distance of the observer or photographer from the water. But when we climbed out on the rocks as far as possible, Badger presented a frightful spectacle. The whole river, having accelerated to a speed of twenty-five knots, but still flowing smoothly with only an occasional glassy sag or hump, abruptly plunges ten feet into a line of deep potholes, caused by boulders far beneath the surface. A confused mass of lashing waves extends for nearly half a mile downstream.

The drop was so sudden as to make the only possible channel between the holes, a narrow tongue of smoother water one third of the way across, entirely invisible from the brink. It was therefore advisable to proceed on signals given from the shore. Nevills and Reed, delicately maneuvering within a few inches of the signaled position, passed safely through, despite being thrown about and shipping water in the surf below. What happened to me is best described by an observer, and I quote the following from Nevills' navigational notes:

"He starts. Too far left. Signal him over. Now he's too far to the right. I signal him again, and this time he whirls his boat about, and a few heavy paddles and he's way left again. I yell and signal frantically. Zee (the author) rises up in his boat and sees his predicament, turns the boat around, paddles frantically, but is swept into the worst hole in Badger. The kayak almost immediately sticks its nose through the big wave at the lower edge of the hole—but no Zee. The boat comes on through, maybe a hundred feet,
when I spot Zee about thirty feet ahead of the Escalante. He holds himself back and grabs the boat. Dell has by now made it out into the river. I start to take off, but as I see that Zee is O.K., and that Dell is out anyhow, I pull back to shore. Later Zee explains that his air-inflated life preserver went to pieces and that all that saved him was an emergency gas bottle preserver."

I confirmed in my belief that next to boats, good life preservers are the most important items of river equipment. In only one circumstance in the Grand Canyon could a preserver be a handicap; sucked into a whirlpool, one might conceivably reach equilibrium halfway down, instead of being carried to the bottom and thrown out. My emergency compressed gas life belt took care of this chance as well as of any failure of my regular life jacket, and sent me safely to the top.

As the mishap at Badger produced no ill effects, our little flotilla was soon under way again headed for Soap Creek Rapid, three miles downstream. Although not as dangerous as its predecessor, having a more open channel, this pitch has higher waves and a worse reputation. Several expeditions after portaging around Badger had met disaster in Soap Creek. Although it was late, and time to camp when we arrived, everyone was anxious to continue. Soap Creek Rapids consisted of a quarter-mile of twenty-foot waves. Both Nonn and Dell managed to slide around the worst of these, and I tried to do likewise. However, being unable to maneuver properly in such rough water, I was swept right into the main drag. For a moment the muddy crests of the huge combers towering above me were utterly terrifying. Then they turned out to be more fun than a roller coaster. The Escalante rode through perfectly. Nevills had feared that the kayak would be turned end over end, but as long as my feet were firmly braced to keep my weight from carrying me forward on the downgrade, my only worry was seasickness.

We camped on the next beach, exhausted, but happy. Nevills had been astounded by the Escalante’s performance and admitted that, expecting its early destruction, he had made provision for me to ride with him. The kayak had definitely proved her ability to ride the big ones and survive the worst kind of underwater pounding. Now, if I could find a way to maneuver quickly, all would be well. I finally worked out a rather unusual technique. From this time on I never paddled a stroke forward in fast water. Like Nevills, who always rowed upstream, I could avoid danger only by facing it and backpaddling furiously. But with the center of gravity toward the rear, my boat moving backwards was almost impossible to turn, even harder than the much heavier Wen and Mexican Hat II, which had a great amount of sheer and most of the weight forward. My only hope of a quick change of direction was to wait until balanced on the crest of a wave, and then to dig in, with most effective results.

Our first camp in Marble Gorge was very comfortable, with the usual accumulation of driftwood that makes searching for logs for the fire an unnecessary chore for the river rat. We slept well and high cliffs kept the early morning sun from waking us too early.

More rough water met us the next day. A successful passage through Sheerwall Rapids encouraged us to take a flying jump at House Rock, one of the nastiest places in Marble Canyon. Norm and Dell slipped off easily to the right of the big waves, but I was caught unawares and swept into the heaviest surf. From above, it had looked much like Soap Creek, but once in it, I found that across the twenty-footers were six-foot transverse curlers. It was impossible to hit both kinds head on, and about half way through, one of the little fellows picked the Escalante up, and slapped her down smartly on her topsides, leaving me sputtering in the water alongside. In a moment, climbing on her keel, I had the foldboat under control again, and paddled ashore almost as easily as if she were right side up. Once again, no damage was done, and soon I was drifting along with the others. With the river temperature about 90° and the air 120°, an occasional ducking was actually not unpleasant. Capsizing didn’t make much difference, for in almost every Grand Canyon rapid, one gets as wet as is physically possible.
North Canyon Rapids, two miles downstream, a long series of watery mountains nearly twenty-five feet high, gave us a glorious experience. At each crest, just before falling off, I would feel myself floating in air, only to be practically pressed through the bottom of the boat a few seconds later. At times the Escalante was practically clear of the water.

During the remainder of the day, we passed over a number of sharp drops; Mile 21, Mile 24 \(\frac{1}{2}\), and Mile 30 being the most noteworthy.

Our camp that night was by the spectacular spring spouting amidst greenery from the cliffs that Powell named Vasey's Paradise. From here we could expect easier going for the next forty miles. Perhaps the Escalante might go a day without capsizing!

And so she did. For two days, down to the beginning of the Upper Granite Gorge, we encountered no rapids of major proportions. There was an opportunity to enjoy the somber splendor of the Grand Canyon, beginning at the mouth of the Little Colorado River. At Nankoweap Creek, far ahead of our schedule, we spent a clay climbing and exploring cliff dwellings. Each night the approaching cataracts of the Upper Granite Gorge, Hance, Sockdologer, and Grapevine became a more imminent subject of conversation. The signal fire we lit at Tanner Creek to show watchers on the rim that we were safe, a day's run from Bright Angel Trail, meant little since we had still to pass through Hance, the greatest drop on the Colorado, twenty-seven feet, just ahead, followed by what Powell declared to be the "Sockdologer of the world" and its successor, Grapevine Rapids. Norm raved all evening about their dangers, concentrating his efforts this time on Agnes, Weldon, and Hill, who would have to ride through the last two no matter how perilous they were, because of the sheer walls bordering the river.

Hance, though long, rough, and complicated, was by no means impossible, and in the Escalante I was able to avoid many of the tallest haystacks. Sockdologer, on the other hand, surpassed all expectation.
The stage was higher than ever run before. From the narrow ledge whence one gets one's only preview of this tremendous drop, we saw a terrifying spectacle. The very bedrock quaked under the impact of the torrent. Conversation was impossible. Holes and fountains were scattered in wild confusion and were obviously impossible to avoid. However, since this was one rapid that must be run, there was no sense in delaying. Nevills led off, and with his passenger Agnes, disappeared around the bend to an unknown fate. Five minutes later, Dell and I started, side by side. Luck was with us; we missed the largest holes, and plunged unscathed through the smaller ones. Norm and Agnes met us, safe at the foot.

The remainder of the run to Bright Angel Creek was by no means easy sailing. The maps indicated only two heavy drops, but perhaps the Government Survey party, after an incredible number of duckings, had their minds on cold drinks to be found at Phantom Ranch rather than on the river. We encountered no less than six major pitches.

On approaching the suspension bridge where the trail crosses, we spruced up and arranged our fleet in formation, expecting a crowd to be on hand for our arrival. We were surprised and disappointed to find not a soul there, although this was soon made up for by the extraordinary interest of the press, who kept the Park's telephone wires humming the rest of the day. Three nights ashore provided welcome relaxation.

The second part of the voyage, the stretch from Bright Angel Creek to Lake Meade, was nearly twice as long as the first, one hundred and forty-six miles against eighty-eight, and had more numerous and powerful rapids as well as the most scenic part of the inner gorge, near Havasu Creek. The reputation of this part is not as bad as that preceding, chiefly because the weaker expeditions have all been eliminated before reaching Bright Angel.

At Horn Creek, a granite dyke jutting out directly in the path of the main current, spells certain death to anyone who fails to avoid it. Deubendorff and Walthenberg are named for men who capsized in them. In Upset Rapids, all three boats of the Government Survey party swamped in 1923. Granite Falls, only a few miles below Phantom Ranch, showed us the heaviest seas of the entire trip. Only the foldboat, sneaking along the side, was able to avoid the mountainous waves, which nearly spelt disaster for the big boats. Both Norm and Dell had to leave their oars, and rush first fore and then aft to keep from being tossed end over end. The stage of the river we encountered in the Lower Canyon was much
higher than any experienced by previous voyagers, and many places not considered dangerous before, caused us much trouble. In One-Hundred-and-Sixty-Four-Mile Rapids, I had my third and last spill. A cross surge, where the main current rebounded from the cliff, spun the Escalante in a complete revolution, leaving me floundering alongside. Because of the stability afforded by the sponsons, I was able to climb into the cockpit immediately and bail out as I proceeded.

The channel seemed to become progressively more complicated, and often the only safe course lay through several medium-sized holes. I found that if the foldboat hit one of these squarely, she could generally take it, submerging completely for a distance greater than her own length, and then forcing her way to the surface by virtue of tremendous buoyancy.

The lower Grand Canyon is a nest of whirlpools. Because of their unimportance on other rivers, I had to admit that they were the most treacherous of all hazards. Generally concealed at the foot of a train of waves, they are of two types. Stationary whirls occur where the main current races alongside a quiet eddy protected by some outcropping of the bank. Some of these are as much as forty feet in diameter with vortices six feet deep. Such maelstroms would engulf any boat less than thirty feet long, but fortunately they are easily recognized and avoided. Trickier are the traveling whirls moving back and forth continually at the end of many chutes. One moment the channel ahead is clear, and the next, a yawning hole greets one with a throaty gurgle. Dozens of these would unquestionably have sucked under an ordinary foldboat, but with her side tubes, able to support six hundred pounds apiece, the Escalante never went completely under. In fact, I seemed safer in these than Nevills in his cataract boats, whose great weight made them difficult to extract.

Two rapids forced us to line or drag the boats around them over the rocks, Hermit and Lava Falls. The chances of getting through either were small, and conditions downstream where the current ran into the cliff made a capsized boatman's chances of survival very slim. Standing with stopwatches on the shore, we could estimate our chances of survival with mathematical precision. In Hermit, because of a constriction in the channel, the speed of the river made it impossible to avoid a thirty-five foot explosion wave, the largest on the Colorado. This phenomenon was caused by air trapped by the initial wave of a series and shot every few moments out of the next crest. Many other convolutions of this extraordinary waterway, the eruption occurred only at intervals. We discovered that the eruption was at its maximum and utterly destructive for fifteen seconds, one third of the time of the cycle of this phenomenon. We did not dare try to pass it in the remaining thirty seconds. Lava Falls, which resembled a trough of brown fountains, was even worse. Here, traveling at the rate of an express train, a boat would have to traverse at least three or four writhing protuberances. The chance of striking them all at a quiescent stage was less than one in four.

We encountered on the whole voyage not a soul. The only animal, a solitary wild jackass, startled us out of our wits with a re-echoing hronx cheer. Our progress, aided by the flood current, was fast. We slept late, and rested one full day and two afternoons amusing ourselves by mountain climbing, garden planting, and dam building. Bridge Canyon, the last rapid, which we reached eighteen days after leaving Lee's Ferry, found us wishing for more.

When the Escalante slid into Lake Meade, upsetting the dire predictions of the best authorities, it placed the cataract-type of kayak definitely in the top ranks of heavy water craft. For the first time a light, inexpensive boat had performed a feat formerly considered possible of accomplishment only by cataract rowboats, Salmon River barges, and heavy Good-year rubber boats, all costing a small fortune. Using the lessons learned from the performance of the Escalante, which is now a permanent exhibit on the North Rim, it is possible to design a cheap, seaworthy kayak, which in contrast to all present light boats, can be safely handled by ambitious boatmen on the precipitous waterways of the West.
Previous Expeditions Through the Grand Canyon

1. W. Powell 1869 and 1871
Nathan Galloway (alone) 1894
Nathan Galloway 1898
Brown and Stanton 1898
(Brown drowned)
Julius F. Stone 1909
Kolb Brothers 1911
U. S. Government Survey 1921
Clyde Eddy 1927
Frazier Party 1934
California Technology Party 1935
Buzz Holstrom (alone) 1937
Nevills 1938
Burg and Holstrom 1938
Loper and Harris 1939
Nevills 1940

Brief Bibliography (Books Only)


First Through the Grand Canyon. By J. W. Powell. Edited by Horace Kephart. Outing Adventure Library No. 4. New York, Outing Publishing Company, 1915. This is an abridged version of the foregoing.


EDITOR'S COMMENT

The Grand Canyon is no place for kayak or canoe. The safety rules of Grand Canyon National Park forbid the use of canoes and kayaks for this reason (please refer to the rules printed in our Summer 1957 issue).

However, as Zee so ably demonstrated many years ago, the run can be made by a kayak with the aid of a competent crew and a larger boat. If anyone is interested in duplicating this feat, I would suggest the following procedure:

First enter the Arkansas races at Salida and prove that you can run the river at high water. Cottonwood, at its most ferocious stage, is equivalent to what you will run into again and again in the Grand Canyon. Next, arrange with a competent guide such as Bus Hatch or Georgie White to run Ladore and Split Mountain at high water. With them watching, run the difficult routes rather than the easy passages around the edge.

When you have convinced them of your competence, you are ready to go to the Park Authorities and say that you are ready to try the trip.

Shooting the Rapids . . . In Japan

The March 1958 issue of SUNSET magazine carried a short article on Shooting the Rapids of Hozu. It is quite interesting to hear of white water activities in other countries, and this is no exception. The run is a bit plush with a lunch stop where the boatmen are served by kimono-clad girls, etc. However the pictures are interesting and the waves look like fun. The boats are made of wood, with bows similar to the New England dory, but with square sterns. Guiding is by means of sweeps.

If any of our readers have more information, an article would be appreciated.
April 11, 1958

Dear Dave:

Several years ago you were kind enough to print a letter I wrote you, pointing out some of the opportunities for good white water canoeing in this part of the country. We recognize that it is difficult to compete with the spectacular water of the canyon country, but I am happy to tell you that with the growth of the Washington Canoe Cruisers Club, canoeists from other sections are being attracted to the Potomac River Basin area. Just this week we had a group down from Wisconsin spending their Easter holidays running the West Virginia rivers.

There is another section that will become better known in the next few years, and that's the western North Carolina area. There are a number of excellent rivers flowing on the edge of the Great Smoky Mountains that furnish some exciting sport. The enclosed photograph was taken on the Little Falls of the Nantahala River, which is located near Bryson City, North Carolina, on the eastern side of the Smokies. This may or may not be the type of photo you like for the magazine, but I thought perhaps you might want to see it.

Sincerely,

Ramone S. Eaton
Vice President

CAN YOU SWIM?
If not – see your local Red Cross
The Second Eastern and Third National White Water Slalom Championships

by ELIOT DU ROIS

“WELCOME, White-Water Canoeists,” this sign plus a big American Flag greeted all canoeists and spectators arriving in the town of Jamaica, Vermont over the week-end of April 26-27. The reason for this display was the championship slalom, combining both the Eastern and National Events, and sponsored this year by the Appalachian Mountain Club and the Buck Ridge Ski Club.

The races were held on the West River which has been one of the East's best rivers. In the ten miles between South Londonderry and the Salmon Hole at Jamaica, the river winds through a steep-sided uninhabited valley. The banks are lined with hemlocks and the rapids are continuous. In the last five miles the total drop is two hundred feet. Below the Salmon Hole, the river flattens out but still provides some good running. I used the words "has been one of the East's best rivers:" because some of the best miles of white-water are to be wiped out by flood control dams.

Race Committee chairman Roland Palmedo, assisted by slalom course experts from the Buck Ridge Ski Club, set a course over about two thousand feet of river. For the entire distance, the river swept around a long bend to the left, and the course ended in the slack water of the Salmon Hole. The river was 150 ft. wide, with a flow of about 1,000 cfs. There was a good combination of rocks and waves.

The start was at a place where a very large rock in mid-stream divided the current. This gave you a flying send-off through a wide and turbulent chute on the right. After several hundred feet you pulled out the main current to coast through gate 1. Then, with plenty of rocks in the way, you cut over to the left and squeezed through gate 2, which was only four feet wide. Then you jogged right for gate 3 and reversed for gate 4. Just downstream from 4 was an assemblage of rocks and it was embarrassing to come at them backwards.

After 4 you cut across to the strong current on the right and slipped through a wall of standing waves to circle 5, a green 360° on the right bank, but nastier. It was hard to see in the shadows under the hemlocks, there was a tumble of rocks and waves above it which made getting into the eddy difficult, and the pole was almost at the bottom of the eddy. If you misjudged and entered too far downstream, you had to fight your way up against a current. Gate 8 was the most difficult in the course. In only seven runs was it taken without penalty. The gate was in the strongest current and not much downstream from 7. The trick was to paddle up in the eddy as far as possible, then race out across current, and then, at the last moment, turn to shoot through the gate.

If you still had your wits about you, you could avoid the barrier 9 with its penalty of 100 if any portion of the boat passed between the yellow poles. Gate 10 was a straight gate in slowing current. The remaining four gates were hung from tworopes over the slack water of the Salmon Hole. 11 was upstream, 12, 13, and 14 downstream but of course you had to come upstream between 13 and 14. This was the part that made strong men weep. for you could easily blow a good score during these final gyrations. Gate 14 was the finish.

A total of forty-five competitors tried their skill on this course. These competitors represented the three AMC groups, the Buck Ridge Ski Club, the Norwich University Outing Club, the Canoe Cruisers Association of Washington, D. C., and the Ontario Voyageurs Kayak Club of Toronto. There were classes for single canoe, C-1 (16 competitors), single foldboat, F-1 (10), double canoe-men, C-2 (9), double canoe mixed M-2 (6), double foldboat F-2 (2), and a
Willy Dougable battles to make gate six. —Hanson Carroll, Sports Illustrated
team race with six clubs putting teams on the starting line.

In each class, each competitor made two runs, one on Saturday, and one on Sunday. The exception to this was the team race, for which there was only one heat, run as the last event on Sunday. The results are given below:

<table>
<thead>
<tr>
<th>Place</th>
<th>Time</th>
<th>Name</th>
<th>Club</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>346</td>
<td>Eliot DuBois</td>
<td>AMC-C</td>
</tr>
<tr>
<td>2</td>
<td>351</td>
<td>Robert Field</td>
<td>OV</td>
</tr>
<tr>
<td>3</td>
<td>381</td>
<td>George Siposs</td>
<td>OV</td>
</tr>
<tr>
<td>4</td>
<td>381</td>
<td>Charles Grabner</td>
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<tr>
<td>5</td>
<td>423</td>
<td>Roland Palmedo</td>
<td>AMC-NY</td>
</tr>
<tr>
<td>6</td>
<td>437</td>
<td>Willy Thomson</td>
<td>OV</td>
</tr>
<tr>
<td>7</td>
<td>425</td>
<td>Robert McNair</td>
<td>BRSC</td>
</tr>
<tr>
<td>8</td>
<td>461</td>
<td>Robert Alacht</td>
<td>HKSC</td>
</tr>
<tr>
<td>9</td>
<td>547</td>
<td>Willy Dugable</td>
<td>OV</td>
</tr>
<tr>
<td>10</td>
<td>562</td>
<td>Geza Koray</td>
<td>OV</td>
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C-2 (double canoe--men)

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<th>Club</th>
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<tr>
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<td>White-Clarke</td>
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<tr>
<td>2</td>
<td>298</td>
<td>Oliver-Oliver</td>
<td>BRSC</td>
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<tr>
<td>3</td>
<td>305</td>
<td>Pratt-Moulton</td>
<td>AMC-C</td>
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<tr>
<td>4</td>
<td>310</td>
<td>Sauer-Wescott</td>
<td>NUOC</td>
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<tr>
<td>5</td>
<td>388</td>
<td>Rupp-Rupp</td>
<td>BRSC</td>
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<tr>
<td>6</td>
<td>342</td>
<td>Chambers-Love</td>
<td>BRSC</td>
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<tr>
<td>7</td>
<td>359</td>
<td>Harrigan-Berry</td>
<td>CCAW</td>
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<td>397</td>
<td>Muhlenburg-Gamble</td>
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<td>9</td>
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<td>Ryder-Irvine</td>
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M-2 (double canoe--mixed)

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<td>McNair-McNair</td>
<td>BRSC</td>
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<tr>
<td>2</td>
<td>391</td>
<td>Rentounis-Davis</td>
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<tr>
<td>3</td>
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<tr>
<td>4</td>
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<td>AMC-B</td>
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<td>5</td>
<td>486</td>
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<tr>
<td>6</td>
<td>489</td>
<td>Jacobs-Smith</td>
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Team Race (3 canoes)

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<td>Weiss-Weiss</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>931</td>
<td>Wittman-Paulsen</td>
<td></td>
</tr>
</tbody>
</table>

AMERICAN WHITE WATER
There are plenty of people on this list who have done well in other slaloms and whose performance can be counted on. However, the best score was achieved by two men who had never canoed together before, had never been in a slalom before, made only one run together in the C-2 event, and had absolutely no time to practice. This pair was Norm Wight and Lenny Clarke. Bob Harrigan deserves mention for having run the course with only a ten point gate penalty, picked up on gate six.

The second list is for the Eastern Championships. Belonging to the ACA qualified contestants for the Nationals and consequently some people who didn’t place in the Eastern were boosted to positions of eminence in the Nationals. I doubt if we’ll do it this way again, but it did give Governor Johnson a chance to pass out two sets of awards. The awards consisted of impressive cups, medals, and certificates. John Sibley of Folderack Kayak donated a paddle which was given to Wight and Clarke for the best score. Roland Palmedo gave a handsome silver cup as a perpetual Eastern F-1 trophy.

The subject of who did what and how fast is only a portion of the story. The race was a success because of the work of course setters, gate watchers, time keepers, and people who did similar chores. The week-end was a success because of the perfect weather and the opportunity for canoeists to mill about renewing old friendships and making new ones. The event was a success because of the good combination of competition and informality. Finally, our visit to Vermont was a success because of the hospitality of the people of Jamaica. On Saturday night they put on an old fashioned bean and ham dinner for us. After dinner we trooped across the road from the church to the town hall where we were joined by a number of townspeople and where we watched movies of canoeing in Maine and Idaho. After the movies, Helen Fair led singing in her incomparable manner, and the evening was finished with square dancing. This may have kept some competitors up too late, but “the lady ’round the lady, and the gent ’round the gent” is good practice for whipping through slalom gates.
IDEAS FOR RIVER MAPS

by PETER D. WHITNEY

The U.S.A. could spend more effort on this.

The results at Salida have taught many Americans for the first time how advanced white-water sport in Europe is compared with our own. But those who haven't been river-touring in Europe may still not realize how highly developed are the river guides and maps with which the European can plan his trip and his approach to individual rapids, mills, and even such humdrum hazards as riverside nettles.

It is with the maps that I want to concern myself, since there has recently been significant output in the guidebook field in the Eastern United States. But even the excellent guides of Burmeister and Grinnell have not a single map to accompany their often superb descriptions of the most famous rapids and scenic river tours of the East.

With all deference to these gentlemen, whom I regard as heroic figures in our sport, I must admit that I find their descriptions of White Water hard to follow without maps. Reading their word-pictures of rapids with which I am not familiar is like trying to follow the road directions of a native of an area who takes too much familiarity for granted. And in the case of rapids I do know, I am constantly straining to square my recollections with their words.

This doesn't mean that these writers are not gifted; it only illuminates the eternal difficulty of translating the visual element into the auditory medium which—although most of us no longer form the words with our lips as we read—the printed page remains.

I make a practice of pasting maps of my own crude tracing on pages facing some of the descriptions in these guidebooks, and I recommend the practice to other boaters. For one thing, they are sources of infinitely heightened pleasure in re-capturing past adventures. For another, they may become useful for future paddlers. If the combined lore of the Burmeisters, Grinnells, Grants, DuBois, Horns, and other pioneers too numerous to name could be accumulated in club files or published, it would be the biggest single spur I can think of to sport.

The Europeans, with a flair for organization that sometimes seems excessive to us (whoever said Americans were organizers?) have created an international code for river maps. Although the printing methods vary from the primitive blueprint or mimeographed sheets to elaborately lithographed relief jobs with multiple colors, the code remains pretty constant. It could well be adapted for American rivers, though we would want to make some changes. We have but few mill-dams and weirs, and our wilderness waterways would require some indicators not provided for in the code. I think, for instance, of warnings about trackless deadwaters in Canada and Maine, eel-racks in Pennsylvania, and the low culvert-and-earth embankment bridges that are thrown across rivers for the summer season only in California.

Here is the code as given on one international map, with explanation in three languages:

The more elaborate European maps, for such classic canoe trips as the Tarn, Ardeche, and Rhone, are in great detail and display considerable artistry. They show road-approaches, camping grounds, youth hostels: famous scenic attractions within reach of the riverside. Such detail as woods, bank-elevations, and individual farmhouses are given. River distances are marked at natural halting places like mill dams and rapids.

Most useful to the white-water fraternity, though, are the scaled up insert maps of the individual rapids. I reproduce here one of the simplest types, which gives the barest necessary information about a difficult Class V passage on the Allier River in France. All it tells, really, is to
keep the rocks on your right and the island on your left; but actually there is a lot more to this particular rapid than that.

A more complex and more useful type of chart is shown here, from the Tarn River map series of the Touring Club de France. It shows the best point for reconnaissance, and the route to follow after reconnoitering to gain the best approach position; it indicates the steepness of the drop in percent. At other rapids, the chart will show points for portage and “chariotage,” and will indicate alternative routes for high and low water. One special insert warns the approaching boater by showing the profile of the cliffs as they will look when he approaches an impossible and possibly murderous chaos of rocks.

One of the principal workaday advantages of such maps is to keep the paddler aware of where he is on the river, helping him to pace himself and avoid getting benighted. The turns and twistings of the river are impossible to describe or follow textually, and the Geological Survey maps are often rather vague on river courses—or so I’ve found. It is a good thing to know that a camping spot awaits one around the next bend, or that a suitable debarking place is only half-an-hour’s paddling away.

For American conditions, with our distances, it is obvious that maps will have to be more cursory and perhaps will have to consist basically of road-and-bridge maps into which the scaled-up inserts of individual rapids may be keyed.

The growth of the map files will be slow. The resources of the American canoeing organizations do not yet reach...
to creating complete editions of beautifully printed guides and maps. Moreover, there is a limit to the amount of paper work a trip leader is going to be willing to add to his other duties.

I am enclosing a sketch-map that has been whomped up for me on the basis of notes I took years ago at Harpers Ferry, W. Va. Although I have not revisited this beautiful and classic passage in years, its character is sharply brought back to me by the notes and the sketch. I offer it as encouragement to duffers like myself, though it should be improved upon. The scale is too detailed for a day's cruising and insufficiently detailed to show the individual passages through the rapids. Rut until I go hack there with the project in view, I am not going to be able to improve on it.
A DAY ON THE MIDDLE FORK
by THOMAS J. GLENNON

Reprinted with the kind permission of the editors of APPALACHIA

I AM propped up against the trunk of a huge fallen pine tree, on a sandbar in the Middle Fork of Idaho’s Salmon River. The sun beats down from a deep blue sky, concentrating its noonday heat in the canyon through which the stream flows. The walls of the narrow gorge rise steeply to a height of several hundred feet. The slopes covered moderately with stands of ponderosa pine, brown-trunked and roughly beautiful against the dull gray of undergrowth and rock. The water is rushing past at eight miles an hour, its surface relatively calm after the stretch of tumbling rapids through which we have just come.

The fire still smoulders on the spit of sand, and a folding table, loaded with pots and utensils, stands close beside. We have already served our first lunch on the river, consisting chiefly of newly caught trout. The two guides are busy scouring pots and pans and storing them in the depths of two rubber rafts which lie on the shore. Some of my companions are resting in the shade, some have returned to their fishing, while a few are moving about with their cameras, recording on film the beauty of the unusual scene.

Before stopping for lunch we had been on the river for a couple of hours, four men in each of two peculiar floats, specially designed by our guide Don Smith, one of the pioneers of travel on the Middle Fork of the Salmon. Don has attached huge sweeps, ten feet in length, to bow and stern of a ten-man navy raft. To the rim of the raft lie has fastened a metal frame supporting a canvas bulwark. Air has been blown into eight separate compartments, good insurance against sinking in case of rupture or puncture.

The strong arms and shoulders of Don handled the sweeps of one boat while Archie, the second guide, manned those of the other. It is no mean feat to manipulate the sweeps when the river is high, as it is today, the channel narrow, and the rapids violently active. A dozen times in our morning descent we rushed into a narrow channel which churned among huge boulders, the water standing up in successive waves to a height of three and four feet. We bounced safely through them all, clinging tightly to the metal frame, our confidence reinforced by the life preservers we were wearing.

In the lee of the rocks near the shore the water is quiet. Here almost invariably we found a rainbow or a cutthroat waiting for the fly. Time and again, at a word from Don, we cast a dry fly on a rock, dragged it over the top, and then allowed it to fall lightly to the surface. As it hit the water the trout would rise and strike, and another catch was on its way to net and boat. Occasionally we would hook one of the battling fish just before the raft entered a stretch of rapids. There was nothing to do but hold on to the railing and pole, dragging the catch on a tight line through the churning waters to a relatively quiet place beyond.

It was a pleasant surprise to find ourselves on the river this morning, for at one time it had seemed an almost impossible task to reach the small landing strip near the headwaters of the Middle Fork. At seven o’clock six of us and the pilot took off in the single-motoried plane, at Salmon City, into a sky of clear blue. Climbing steadily to 8500 feet the pilot headed for the valley of the Middle Fork.

The scene from the plane can be described only by saying that the complete circle of the horizon contained more than a thousand peaks. Deep in the valleys were occasional patches of green, the only breaks in the vast monotony of towering hills. We were congratulating ourselves on the beautiful weather when it was noticed that the valleys were beginning to fog in. Flying at 8000 feet in the bright sunlight was fine, but our landing field was at 1000

American WHITE WATER

23
feet somewhere below the clouds which smothered all but the bare peaks of the mountains. The soupy masses became solid and impenetrable, giving the impression that the valleys were filled with snow few thousand feet deep.

There seemed not a chance of breaking through the barrier when a small hole appeared in the solid whiteness, an opening barely large enough for the plane to slip through. The pilot banked sharply and nosed down, the plane brushing the foggy margins of the opening. Then we were under the clouds a few hundred feet above the valley, the canyon ‘walls’ on either side almost close enough to touch. Threading his way among the hills the veteran pilot picked up the rushing ribbon which marked the river, and followed it to the narrow landing strip we were longing to see. We all breathed a sigh of relief as the wheels hit the rough ground.

I particularly, for I had made the hour-and-fifteen-minute journey sitting on the floor just forward of the small door of the plane. As I had climbed into the narrow spot near the tail the pilot had shouted, “Last man in slam the door.” I had done so, but with apprehension, for the lock arrangement was a simple one—a touch of the handle, and watch out below.

The afternoon journey on the river was featured by a sudden thunderstorm, the rain coming down in huge drops for almost half an hour. We slipped under tarpaulins, but the beauty of the rugged scenery as it unfolded tempted us to leave our heads exposed to the storm. The water dripped down our necks and backs but, as the guides prophesied, the hot sun which followed soon had us steaming, and then dry.

We ran rapid after rapid for a couple of hours before pulling into a rocky haven for a brief stop. Ever restless in such surroundings, I started to fish down the shore. Fifteen minutes later I was startled to see both boats rushing past in mid-river. The guide shouted to me to walk the shoreline to the proposed camp half a mile downstream. Alone in the wilderness I enjoyed one of my happiest hours, climbing my way slowly over the rocky shore. Casting in likely spots I succeeded in taking three nice trout. I finished the half-mile and more, but no company appeared. Someone had misjudged the distance. There was nothing to do but continue on my way downstream, hugging the cliff which now towered over me.

When I had covered a spot where the steep rocky mass dropped straight down into the water, I had my choice of crossing the mountain a thousand feet up or wading through. I chose the latter, and set out across the fifty-foot stretch. The cold water climbed above my waist, but I made the passage successfully over the sandy floor. Wet clothing and well-soaked boots offering no great discomfort in the scorching heat of the canyon, I again headed downstream.

A couple of my friends had set out to look for me, but a wave and a shout allayed their fears.

The fire was roaring when I reached camp, and all preparations were on the way for the evening meal. From a large insulated ammunition box on the bottom of one of the rafts Don drew eight sirloin steaks. Soon they were sizzling on the metal plate over the wood fire. They cooked fast enough for the guides, but to the others, tired and hungry after the exercise and exposure, the wait seemed interminable. They were consumed in far less time than that required for cooking.

Our hunger satisfied, we set up camp for the night. Having spread our sleeping-bags on the sand spit and inflated the mattresses, we all gradually moved to the smouldering fire for a review of the happy day. The sun still shone on the canyon wall across the river, but the black shadow of the mountain behind, as it crept up the rocky face, gave warning of the approach of evening.

The men talked for an hour, mostly of the clay’s run and the prospects of the morrow. Soon they all yielded to Don and Archie and listened to tales of a country with which the two natives were intimately familiar from twenty years of running the river in the summer and guiding hunting parties in the fall. Archie, truly a character out of Bret Harte’s tales, related story after story, all improved an extraordinary vocabulary.

Long after the last trace of sunlight had disappeared we sat crosslegged around the
crackling wood fire, the heat of which felt good in the now chilled canyon. Night closed in and the stars came out in a cloudless sky. In the east the hills were silhouetted against the light of the promised moon. The fire burned low and the men drifted one by one to their sleeping-hags. I lingered, reluctant to lose the spell of the hour and the place. Finally I, too, slipped into my sleeping-bag content to be in the outside row where I could watch the black outlines of the tremendous pines, listen to the night sounds of the woods, and dream of tomorrow and the river.

An abridgment of the 1875 report to the Smithsonian, and the greatest white water story ever recorded, by one of the truly outstanding men of the 19th century. One-armed Major Powell started with four boats and nine men from Green River City, Wyoming, lay 21. One thousand miles later he emerged from the Grand Canyon at on August 29, with two boats and five men.

No man was lost to the river; they quit. From the mouth of the Uinto to Grant Wash it was the last Great Unknown in America. From hour to hour they never knew what lay around the next bend. The walls that hemmed them were sometimes three fourths of a mile high, and beyond the walls, if they could be scaled, lay nothing but a blistering wilderness.

No wonder they felt like bugs being swept along helplessly at "railroad" speed in the bottom of a tremendous trench. Three of the boats were of oak, 4' wide, 21' long, with weathertight bulkheads fore and aft to make storage compartments. At least they were tight when the party shoved off on smooth water.

The Green lost one boat in Lodore two weeks after the start. They abandoned the "Emma Dean," a 16' pine boat, at Separation Rapids, and it was there that the three men who quit the party missed white water immortality by a day and a half. They were killed by Indians instead.

Rapids like Soap Creek, those in Marble Canyon, Lava Falls and Sockdologer are a hell's broth. By then the party's morale was low and their ten months of provisions had been reduced by the battering Colorado to a few handfuls of often dried-out flour. Maybe you'll get out of the water if you dump and lose your boat, but where are you going then?

Powell's made it. They were resourceful and daring and he was a leader. Their canvas was rotten, not a complete outfit of clothes, or a whole blanket. They patched leaks with pitch and they made oars from driftwood. They portaged. They ran her when they couldn't portage, and sometimes they ran her accident when lines gave way.

They came out near Callville. Mormons along the river had been watching for fragments of their boats, since the party had been assumed lost from the time it had left the Uinta.

Because Major Powell was the man he was, much more came from the trip than a great adventure; but still, in the annals of white water boating nothing ever has, or ever can, equal that first voyage down the Colorado.

Powell knew something of boats; he assured; but no one knew anything about the Grand Canyon at water level.

Now the drills are rattling in Glen Canyon, 700 feet above the river. A single arch steel bridge span is reaching, out below the site, but in Powell's diary you can still re-live the danger and excitement of the Grand Canyon run when no man had dipped an oar into the worst of it.

Reviewed by Steve Frazee

VODNI SLALOM, by Jan Sulc, published, in Prague. This is by far the best book we have ever seen on the subject of slalom, in spite of the fact that we could read only a word or two. However, the photographs and diagrams speak volumes.

Quite a little can be learned from an inspection of the illustrations. The book begins with what is apparently a history of white water slalom for both canoes and kayaks. There are spectacular photographs ranging from the Geneva Slaloms of 1949 thru the Tacen Slalom of 1955. There are a number of interesting photographs of a single-decked canoe maneuvered with a single-bladed paddle.

Following this section, there is a discussion of the various hull forms and their effect on buoyancy. Unfortunately, we were unable to read their conclusions as to the various turning effects caused by

AMERICAN WHITE WATER
water motion, leaning and paddle strokes. There are some interesting diagrams showing how the leaning of the boat to one side makes it want to turn away from that lean.

In the following chapter, whose subject we cannot discern, there are some fabulous action photographs in really rough water. Quite noteworthy is the almost universal use of the Duffek turn for both stability and turning moment.

The following chapter is apparently on the subject of riding waves and rough water. The paddle brace comes in for considerable discussion and so does the subject of entering and leaving moving currents.

Next comes a chapter illustrating the various kinds of gates to be found in slalom and how they are to be constructed. Again we have both excellent diagrams and many photographs. There are numerous drawings showing the proper way to make various sequences of gates. Paddle strokes are indicated and the weighting of the boat is shown by cross-hatching. Again, to be noted, is the pronounced lean to the outside of the turn to make use of the hull contours. (Did we misinterpret—readers please comment.)

There is a section on the Eskimo Roll which is now almost required technique for any serious slalom runner. Being unable to read the text, it was hard to discern the methods recommended. One type looked like a pauleta roll and another was apparently the put-across method.

It would be of inestimable service to American White Water readers if the translation of this book could be arranged. Anyone interested should get in touch with the editor of your magazine.

Across the Continent by Canoe

So doubt most of you have seen the article in LIFE (June 23, 1958) about the boys who took canoes from Denver to Old Town, Maine. The color photographs are excellent and the story gives but a brief picture of all they went through during this 5,000 mile trip.

The group consisted of Ed Vestal, Hengt Soderstrom, Jerry Hewey and Earl Kickers. They started down the South Platte River, which is only slightly more than a trickle. When they joined the Missouri, they had a large river with a reasonable downstream current.

At St. Louis their troubles began. They had to paddle up the Mississippi to its headwater and portage in Wisconsin to descend into Lake Superior. The Great Lakes proved both difficult and hazardous due to wind squalls which created tremendous waves. They travelled through Quebec by means of rivers, lakes and portages.

Down the St. Lawrence, they had relatively good going. Then there was another series of ascents, portages and descents to reach their goal, Old Town, Maine.

It took them a little over 6 months to make this trip and the article in LIFE: gives an excellent picture description of the adventures they went through. Kickers is writing a book on the subject, which should be of interest to all.

AYH—Chicago

The Chicago Branch of the American Youth Hostels sponsors a whole series of canoe trips in and around Chicago. For further information contact them at 431 South Wabash Avenue, Chicago 5, Illinois.

New Kayak

Duralith Products has announced the availability of a fiberglass kayak. The overall length is 10' 2”, the beam 30” and the approximate weight 65 pounds. The cockpit has room for two people.

From inspection of the photograph, it is apparent that this is a smooth water cruising boat. The advertisement says that it is ideal for hunting, fishing and general cruising. For more information, write Duralith Products, 1536 Newport Blvd., Costa Mesa, California.
Sports Illustrated

Again, our favorite sporting magazine has come out with another series on the running of rivers. In the June 16th and June 23rd issues of SPORTS ILLUSTRATED there are two excellent articles on the running of the Colorado River. Both are written by Joel Sayre.

The first article treats the running of the Grand Canyon with veteran Georgie White as guide (a staunch supporter and advertiser in your magazine). The story opens with a fabulous picture by Richard Smith. In this two page spread we see two rubber rafts almost swallowed by the swirling water of a hole in Horn Rapids. More vividly than words, it tells the story of the violence and action of this mighty river. In the text, Sayre gives a word picture of the background and the experiences of a river-runner in this class of all runs. Whether you plan this trip or merely wish to relive its adventure in your home, this article is a must.

The second article in the series treats the running of Cataract Canyon. This canyon is not as famous as the Grand, but perhaps even more dangerous. Well known to veteran river runners, it has received relatively little publicity. Starting in the middle of nowhere and ending essentially nowhere, few people have seen it from the ground. However, for the veteran river-rat, it is a mighty challenge. Do not miss either article.

Advertising:

Advertising helps support your magazine. It is also a good investment for the people who do it. No other medium reaches such a group of active, enthusiastic boaters. Let us all show our appreciation and patronize the firms who advertise in our magazine.

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San Francisco 3, Calif.

Arkansas Race Results

In the annual wild water races at Salida, Roger Paris took first in a rigid fiberglass kayak built by Tom Tellefson. Second was Beaujean of Belgium in a folding kayak, and third was Rudolph Lubinger of Austria. The first American was Eric Frazee, the second was Charles Daily and the third, James Burke, all of Salida.

In the women’s division, Carol Kane finished first and Elsa Bailey finished second. Elsa, as you will remember, is our Western Advertising Manager. In the International Slalom, Carl Schroeder of Germany finished first, Henry Kadrika of Switzerland, second, and Willie Gertgrassner of Italy third. Among the Americans, Eric Seidel finished first, Eric Frazee, second, and Jim Burke, third.

In the Western Slalom Championship, Eric Seidel finished first, Eric Frazee, second and James Burke, third. Next, in this order came Charles Daily, Danny Makris, Tom Tellefson and Dick Stratton. In the women’s division, Carol Kane finished first, and Elsa Bailey second.

Encourage Your Friends to Join the American White Water Affiliation

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Insult on Injury [2] There is a proposal afoot to name the oversized mud-pond that will back up behind the Glen Canyon dam "Lake Nevills," after Norman Nevills, a well known river man of the 1940s who was one of the early promoters of commercial float trips on the Colorado, especially in the San Juan-Glen Canyon area. One of the latter, Staveley of Grand Junction, Colo., has the notion that "it would be extremely fitting that the huge new recreational lake...be named for the...man who was primarily responsible...for promoting it as a playground for sportsmen and vacationers.”

Well, on the face of it it seemed to some of us extremely UNfitting—nay, a revolting outrage! We popped a gut and blew a gasket in all directions. The blasted billion-dollar silt-trap be named Lake Watkins so that future generations may know where to heap the ignominy, but not for one of our great river men! Clearly Mr. Staveley can discern no difference between white water and lake recreation.

More recent information, however, has changed the picture somewhat. Nevills was a fine, capable river man all right, but he hardly ranks among the legendary pioneers. He appears to have been more the promoter type who hoped to make his pile from commercial floats and retire away from an area for which he had no great love. He was not opposed to the Glen Canyon dam and indeed had some thought of running a steamer line on the lake.

What it boils down to, then, is the question of whether it is appropriate to associate the name of a famous river man (and by extension our white water sport) with a great artificial lake which is in...
effect a gigantic roadblock on the wild surging Colorado and the atithesis of all that his name represents for present and future generations of wilderness cruisers. This is one on which I should like very much to hear from readers, especially those who knew Nevills personally.

Meanwhile Charles Eggert, motion picture director for the National Parks Association, has come up with a very interesting idea for a more appropriate memorial to Norman Nevills: that the country's outstanding wilderness photographers be commissioner to record on film all those landmarks, places of interest and natural wonders which will be forever buried under tons of water and silt. He suggests that the photographs be housed in a museum at the dam site, so that future generations may see them and judge for themselves whether the gain (if any) will have been worth what was lost. This has the ring of an inspired idea—what wouldn't David Hrower give, for instance, for such a set of pictures of the Hetch-Hetchy valley before it was destroyed! Anybody got any influence with a philanthropist or two who could endow a Nevills Foundation to carry out such a project?

Rainbow Bridge. The Mountaineers of Seattle have been urging other conservation organizations to join them in strong protest over the threat to Rainbow Bridge. The law authorizing construction of Glen Canyon dam requires protective measures to preclude the impairment of this natural wonder. Funds have been appropriated to start construction of the dam, but not even the preliminary cost studies have been made for the secondary projects necessary for the protection of Rainbow Bridge. Inasmuch as even temporary flooding and silting may do irreparable damage, the Mountaineers are urging that construction of the dam be delayed until adequate protection is provided, lest this be allowed to slide year after year until too late and a sudden flood destroy the famous Hridge. This is after all an established national monument, and should not, any more than Dinosaur, be flooded by big dam reservoirs.

Wilderness Bill. After a number of revisions this vital legislation has been reintroduced in final form in both houses of Congress with new numbers: S.5028, HR.13013. The principal changes involve the elimination of the specific listing of areas to be included in the wilderness system. Instead Sec. 2, paragraph by paragraph, describes the wilderness areas of each category to be included in the system—forests, parks, refuges, Indian wilderness, other units—with the special provisions and procedures relating to each. Other revisions make clear that wilderness preservation is to be one of the "multiple use" purposes of national forests, and that forests are to be administered "with the general objectives of multiple use and sustained yield"—which leans over backward to appease the foresters. This clause, Senator Murray has explained, "does not permit any use of a wilderness area that would destroy it as wilderness. It does emphasize (1) that there are appropriate multiple uses of a wilderness, and (2) that an area of wilderness within a national forest can be part of an overall multiple use sustained yield policy for the whole forest. The wilderness area itself would, of course, include no timber cutting."

The two bills have been referred to the Interior Committees of the Senate and House, of which Jatnes E. Murray and Clair Engle, respectively, are chairmen, both of them strong supporters. Hearings have been scheduled, primarily for learning if the revisions have satisfied certain opponents of the former bills. Adjournment is not far off and time is short, but there is some hope that this all-important Wilderness Preservation Act may be passed at this session of Congress.

Other Legislative Matters: The Allott Hill to make Dinosaur a national park suddenly came to life when a hearing was called early in July at short notice—to the expressed displeasure of Sens. Watkins and Bennett of Utah, who had no time to call up opposition cohorts from home. Quite a number of Conservation leaders, including Howard Zahniser, Fred Packard, and Joe Penfold, appeared in support of this proposal, but they all urged revision of the language of one
clause referring to the Interior Secretary's powers of investigation and land studies. The recommended phrase, suggested by Secretary Seaton, makes no reference to reservoirs, canal, or reclamation, but merely re-affirms "the existing authority of the Secretary of the Interior to make investigations . . . in the interest of national welfare." With this we'll go along, for the sake of national park status for Dinosaur. Hearings, however, were recessed—in deference to the senators from Utah.

The ORRRC bill (see AWW, winter issue) has been passed by both houses of Congress and signed by the President. Sens. Neuberger, Watkins, Anderson and Karrett have been appointed Senate members of the Commission.

The substitute Rivers and Harbors bill, replacing the one vetoed by the President, lacks many of the unauthorized projects to which he objected, but follows the earlier pattern as to Hruces Eddy dam on the Clearwater River: a $500,000 appropriation is included in the Senate bill for detailed engineering plans, but is not included in the House version. The measure goes to House-Senate conference the week after copy deadline. The Senate Committee of Public Works specifically noted Conservation opposition and "limited authorization to the preparation of detailed plans with the understanding that construction will not be undertaken until further authorization is provided by Congress."

Sen. Neuberger, however, filed a minority report vigorously protesting the "perilous precedent" of providing funds for a project not yet authorized for construction. "Sound fiscal management will be jeopardized" and such a policy "opens the floodgates for funding innumerable projects which never have been authorized and may never be authorized." The Senator from Oregon is to be commended for his unyielding fight to save the Clearwater.

* * *

C. & O. Hikers Reunion. The fourth annual hike and banquet of the C. & O. Canal Assn. in mid-May was quite a show indeed. Led by Supreme Court Justice William O. Douglas, we hiked 15 miles from the Friday night camp-out at Dam 4 along the Canal towpath to the town of Williamsport, Md. Sen. Neuberger was with us from beginning to end, as were also many local and national conservation leaders. The river had been quite high, and it must be said the National Capital Park Service forces under Supt. Edwin "Mack" Dale and Officer Roland Fallon did a heroic job cleaning up the towpath for us, reconstructing several footbridges, and providing many small amenities to the hikers and aid to the press. A mile-by-mile description of the scenic and historical points of interest had been prepared for us by Orville Crowder of Baltimore, ornithologist, hiker, cyclist and all-round outdoorsman. At the lunch stop at the Potomac Fish and Game Club we listened to a broadcast of an interview (taped the previous evening at the camp-out) with Justice Douglas and other Association leaders. The Association officials and people of Williamsport turned out to welcome us at the locks, and we marched into town behind the colorful high school band with all the foofaraw of a major small-town celebration.

The hike was of special significance this year because of legislation pending in Congress to give this well preserved canal and adjacent woodlands the status of a national historical park. The enthusiasm in the Potomac valley for the idea has to be seen to be believed. Opposition by industrial and private interests has been ignominiously squelched both locally and in the state capital. The local turnout at the banquet was astonishing, including several local political leaders.

Before leaving the C. & O. Canal it should be mentioned that at the Association's annual election of officers at the Friday night camp-out, Grant Conway was elected president for the coming year. Grant is an active member of the AWWA and its lively affiliate, the Canoe Cruisers Assn., as well as quite a number of hiking and conservation groups in the capital area, and one of the most valuable members of our Conservation Committee—a member in whom the AWWA can well take pride.

Be sure to write Dan a letter about Lake Numinus.
Club Activities

THE AWWA AFFILIATE: WHAT AND WHY

Although AWWA is composed, to a large extent, of individuals who are interested in white water and wilderness waterways, it is the affiliated clubs which make our existence as an organization possible. For this reason, I wish to point out to our membership the part which these clubs play.

When our affiliation began, it was soon realized that we needed a publication to draw together the large number of people who would benefit from the organization and would promote its purpose. This meant that a number of members must be obtained rather quickly in order to support such an endeavor. Outing organizations such as the Sierra Club, Appalachian Mountain Club, Buck Ridge Ski Club, and Colorado White Water Association, not only backed the affiliation, but furnished (through their river touring sections) a large percentage of the necessary members and much of the talent needed to publish a magazine and carry on the many committee assignments of the organization. When it became apparent that at least a modest sum would be required each year to furnish the Executive Committee, Executive Secretary and other volunteer workers with the materials to promote our activities and acquaint others with the work of AWWA, a number of these organizations began to contribute $5 a year toward these expenses. These clubs, or their several chapters, were then designated as "affiliates". Any bona fide boating club which shares our purpose, as stated in each issue of AMERICAN WHITE WATER may affiliate by applying to the Secretary. The number of groups which have now taken the step of giving AWWA moral as well as financial support has increased from a mere handful to about twenty. Support has now increased to include a number of AYH groups and college outing clubs as well as the larger outing groups.

We now have enough affiliates to prevent administrative operating expenses from being an immediate problem, we have enough members to support a small but rather good publication and it might seem at first dance that we are in a good position to sit back and be pretty self satisfied. Why not just enjoy our boating and forget about new affiliates and new members?

Let's take a brief look at that Purpose again! It includes the statement, "to protect the wilderness character of our waterways", and herein lies one of the most important reasons for continuing to expand our influence through more members and clubs. None of us can protect wilderness waterways alone. The Dinosaur National Monument issue illustrated the importance of organized action to protect wilderness. It also illustrated the importance of helping others to discover "the rewards awaiting the river tourist" (our Purpose again) which in turn means bringing more members into our clubs and into our Affiliation. This is easier said than done, for the person who enjoys wilderness paddling is inclined to have an aversion to "organization." We must therefore be Forever watchful that our clubs refrain from types of organization or activities which in themselves detract from the values of wilderness trips. If club organization is kept informal, activities are kept in harmony with club purposes, and purely social activities are kept to a minimum, this can be done. Activities must be "wilderness" in character, not that there is never a time for "party ing." Obvi ous white water activities are of the team sport type and naturally encourage some very important socializing. In such cases, however, the clubs stress proficiency and the social activities are not the only attraction for joining.

Well, if you've been a lone wolf up 'till now or have done all your paddling with only a few choice friends, you might consider the merits of an informal, but
recognized club. The number of paddlers distributed all over the continent. Just yesterday, I counted over 60 canoes on one six mile stretch of a small northern Wisconsin stream. We need the help of these paddlers if we are to achieve our Purpose, but we cannot obtain it and keep it without the dubs.

AWWA Executive Committee is always ready, to aid and advise in the formation of new clubs. It is not difficult to organize an informal group and need not involve red tape that will keep one away from boating. Finally, a club can best be kept oriented on Conservation matters and other important AWWA activities through affiliation and can thus best promote the Purpose of AWWA. There are still numerous clubs with active boating programs which are potential affiliates. Could your club, or a club which you could form, add its official support?

Oz Hawksley
Exec. Secretary, 1958

Sports Illustrated Covers National Slalom Championship

In the May 12, 1958 issue of SPORTS ILLUSTRATED there is an excellent spread on the National Slalom Championship. There are excellent action photographs by Hanson Carroll of various A.W.W.A. members in action. Bob McNair and Edie McNair won the mixed doubles in canoe. There is the usual photograph of the Governor congratulating Edie.

Eliot and Barbara DuBois also rate two pictures. Fred and Mary Sawyer appear in a wild action scene.

Congratulations are in order to SPORTS ILLUSTRATED for their coverage of the event and to Bob McNair (past secretary) and Edie for placing first. Fred and Mary Sawyer (A.M.C. representatives) for taking second and to Eliot DuBois (Advertising Manager) and his wife for taking third.

Complete information is given in the article on Page 16.

Remind your friends to join the AWWA.

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