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American WHITE WATER is mailed to all members of the American White-Watter 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, photographs and drawings, but assumes no responsibility for them. Address all editorial material to the Managing Editor or to the nearest Regional Editor. Correspondence regarding the Affiliation or boating information should be sent to the Executive Secretary, Clyde Jones, 5525  E. Bails Drive, Denver 22, Colorado.

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Cover: Wisconsin's Wolf River. Photo by Pot Vanderveen
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 (to increase the fun of our sport and ideas for improving our services to you).

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Early in the winter season, while continuing boating, I started to look for a wilderness trip for the next year. The trip had to be in a complete wilderness with car access to the put in and take-out spots. From a road map, I selected the Bowron River as one possibility. Then followed a period of writing to authorities and local inhabitants and getting maps, river flow data and aerial photographs. Finally I was sure that the river was navigable and that all my requirements were satisfied. I found out that the river started in a game reserve and ran through beautiful territory. The river is in central British Columbia and flows north from Bowron Lake into the Frazer River about 100 miles east of Prince George.

The next step was to organize the party and start the trip. The party consisted of six members of the Washington Foldboat Club. There were four women: my wife Barbara, Harriet Bauer, Liz Wheelwright, and Gail Zimmerman; and two men, Rill Martin and myself.

The trip was scheduled for the first week of July to coincide with favorable water conditions. Mr. McKittrick, the owner of the Bowron Lake lodge, to whom I had written, was very surprised to see the four women adventurers. Obviously there were no other women here, and our party would have the first women to navigate the river. “Kayaks, yes, but not women,” he said. I assured him that the women were experienced boaters which somewhat relieved his concern.

Before we left, Mr. McKittrick told us a little more about the river. We were the first party to go down in four or five years. Also, there was a canyon not far ahead with a 10 foot waterfall in it and some small log jams. With this information, we were soon on our river. The river in the beginning was fairly small, although it was at a high water stage.

A new and unexpected feeling encompassed us while we drifted. The smell of pines and other fragrant plants filled us with a mysterious and delightful feeling. Yes, we were in the wilderness. Instinctively we started to look for game. It would be natural to see some here. And a few moments later we had our first sight. Just in front of our bows an otter surfaced, snorted and looked at us. It must have decided that we were harmless since it swam leisurely to shore and disappeared in the bushes.

This first day we met a few small log jams which we portaged. We also came upon an obstacle built by animals, a beaver dam. Since the dam was about three feet high we decided to run it. We made a small depression in the center by pulling out sticks and with enough water going over, we paddled down.

The river was flat and peaceful. We passed many swamps hidden by bushes in which we could hear strange noises. Finally, towards evening we saw originators of these noises — moose. Two of the big beasts were watering at the river bank. The sight of the boats did not concern them at all, but the clicking of my movie camera disturbed them slightly and they moved away away from the river.

It was getting late when we stopped for the first camp. Our camp site was a small gravel bar on an island. On the first day we observed that a large party would have trouble finding a suitable camp site. We pitched our shelters, some nylon and polyethelene flys and a shower curtain, and started a fire. Although we cooked individually we shared one fire each night. It was dark...
when we finished eating and went to bed. The weather had been threatening us the whole day with gray sky and iow clouds. Now that we were snug in bed the heavens opened and wind and rain lashed our camp.

Next morning found us up fairly late. We ate breakfast, packed and started down the river. Today we had to go thru the first canyon, the place where the 10 foot fall was supposed to be. Needless to say we were anxious to have that canyon behind. Soon we found ourselves in a fairly wide canyon with gently sloped sides. The river picked up speed and changed character. No longer was it a leisurely quiet stream. We went from side to side of the river bypassing large boulders and hydraulics. Rut our fall did not appear. After what appeared as the end of the canyon, we stopped for lunch but nobody was hungry; our expectations were too high and soon we were on the river again. We came into flat country and realized that we had passed the canyon and the fall. Then we remembered back and thought of a spot on the river where the fall could have been were the river not at a high water stage.

The river changed again into its leisurely self. The banks became flat and marshy and we were back in the moose country. Soon we saw our next big animal. It was a male with a horn spread of about three feet. Later when the horns are full grown he probably will sport a six or seven foot span.

Around the next bend was a mother and baby moose. The mother came out into the river and was really surprised to see us. At first we thought she would charge us to protect her offspring but she withdrew into the bushes.

With the canyon behind us, we started to look for a camp site. Again an island provided a fine gravel bar where we decided to spend the night. It was still early in the afternoon and we leisurely gathered wood and made camp. Leisurely we ate supper and then the gray skies of the day became black and a heavy shadow covered the earth. Rain, hail, wind, and lightning attacked the ground as if to destroy it.

Two of our girls were under a clear plastic tarp. They brought ill so they could see the stars, they confessed, but now they had a panorama of delighted clouds and of hail stones falling, falling and hitting the invisible shield. Their shelter had a metal pole in it, a lightning rod they thought, and they were trying to console themselves with counting the time between lightning and thunder. However there was no gap between the two since we were in the middle of the storm.

We awoke to find a dreary wet day. It drizzled when we ate breakfast and then let up just long enough for us to pack and get into our boats. Soon we were wet and cold. The river made a few large bends. In one spot it spread out and made a great lake and in another the bend was studded with islands. Every so often we passed a small log cabin with a caved in roof, where at one time a trapper had his headquarters. Now we were looking for a good shelter where we could warm up and dry our clothes and equipment. After rounding a bend we saw a small log cabin and a swamped boat. We landed and inspected the area. The cabin belonged to a trapper and was locked up. But a little further up there was another, bigger cabin. We went up to it and found it open. Soon we had a fire going and became more comfortable. We brought some of our equipment from the boats and decided to spent the rest of the day and the night there.

After we recuperated from the exposure, we began scouting the area. Outside the cabin we found other ruins and came to the conclusion that it was a mine operation. A jeep trail led to the distant civilization. The highlight of the stay was reached when Bill went out with his little saw and cut up enough wood for a week of fire. Then he got an old stretcher and with the help of Gail brought the wood in.

The fourth day of our trip promised to be a very exciting one. We had five canyons to go through, one with the name of Portage and a Box canyon. One aerial photo showed Portage Can-
yon and its white water. The Box Canyon was on another photo and showed as a thin line. These two canyons were our main concern of the day, especially the Box where the river widened and the canyon itself was too dark to see down into it. We expected a 100 foot fall or something as bad in this canyon.

We started on the river fairly early in the morning. We passed through the first and second canyons dodging rocks and waves. Then, photo in hand, we approached the Portage Canyon. Jumping from eddy to eddy we neared the falls. Finally we came close enough and everybody went on foot to scout the big waters. What we saw was not encouraging. The water rolled and boiled with remarkable irregularity. Big waves, which we judged to be from 8 to 10 feet high, formed on the bottom of the drop. After the waves, the water flattened for a considerable distance which would make for an easy rescue in case of a tipover. There was also a reasonably easy portage possible. Finally we decided to run it. Bill and I would run first and the girls would watch our progress. Then while we stood by as support and rescue, they would run the falls.

I was first. I hit the trough and disappeared from the sight of the watching females. Bill went closer to the right hand shore and skirted some of the big waves. Then I took Barbara's boat through the same course I had followed the first time and the other three women followed. Barbara took movies of everybody going through.

It was interesting to see the boaters go through the big hydraulics. Everyone opened his mouth wide open and took in air, then disappeared in the foamy water, to reappear wet, smiling, sighing a sigh of relief, and heading for the nearest eddy. On the whole trip we did not have a single tipover, although Portage Canyon Falls almost succeeded in two or three instances.

After negotiating another canyon we suddenly came upon a deer crossing from the bank to an island. The deer must have never seen human beings since it was not afraid and actually
came closer to see what curious strangers we were. Even the clicking of my movie camera did not disturb him.

Now we came to a large expanse of water ahead of the Box Canyon. Cautiously we proceeded close to the entrance of the canyon for a glimpse of its contents. Here we found the surprise of the day. The expected waterfalls dissolved and the canyon, although steep and beautiful in color, did not have any problems. The water was flat and smooth with few eddies and ripples.

Since the canyon was so beautiful, we decided to eat a belated lunch at its mouth on a gravel bar. We sat on a large log and relaxed while comparing our experiences of the day. Nearby a beaver crossed the river pulling behind him a branch for his supper.

After paddling a couple of miles further, we came to a large log jam. Instead of trying to find our way through we decided to paddle upriver to an island with a nice gravel bar and make camp. Soon we had a fire going and wet clothes drying on the bushes; the white water in the canyons had kept our clothes wet. Everybody relaxed by the camp fire. The worst was over. Little did we know what we were to face tomorrow.

The rising sun found us listening to the hum of mosquitoes. It was not long before we were on the river. The log jam was still ahead of us. Hoping to skirt it we cleared a passage in a small side channel and went on. Soon however, we were in the middle of a large log jam which extended for miles in all directions.

We started on foot to scout it out and to find a passage. The girls stayed with the boats while Bill and I climbed over windfalls and tore through thickets. On the ground all around us we could see fresh tracks of moose and bear. Also some tracks of bear cubs as well as other small game. It would not have been pleasant to meet a mother bear with her cubs.

Finally after six hours of scouting we came upon a channel and in about one hour a short portage took us out of the log jam. The channels we found were all on the left bank of the river and curved far inland from the main channel. In one spot on this channel we had a simulated slalom course composed of logs and roots. This spot we called a croquet course and had to backpaddle around the obstacles.

Soon after we cleared the jam we started to look for a camp site. Soon we had a fire going and were relaxing. The women brought me a special stump to use as an easy chair. I must say I enjoyed this immensely. At the door step to our camp in the water, a beaver was busy with his daily tasks. I observed him from my easy chair and waited for supper. Since the weather was nice we slept under the stars.

The mosquitoes woke us again early in the morning of the last day on the river. We ate and packed our gear. Soon we were on the river where the mosquitoes did not appear. It was a beautiful day. The sun shone and the surrounding mountains bathed in the mist, appearing and disappearing as though playing games. We had only a short way to go and had two days to do it in. We relaxed and just floated down leisurely. We bypassed several areas, sites of past log jams, where the river cut channels around them. Then we came upon a log jam which extended for miles again, but which also had a channel around it; blocked by a small stretch of logs. After a short scouting we found our path right through the middle of the snag covered channel. After we cleared a path of obstructions, we carried our boats over and got by with a portage of about 30 feet.

Around the next bend we came upon something moving in the bushes. And here before us was a mother bear with her two black cubs. We eyed each other for a while and then the mother turned and rambled off into the woods. The little cubs stayed for a moment longer and then missing their mother bounded after her.

Soon we found ourselves looking for a camp site although it was still very early in the day. And just then we came upon our first civilization, a motor boat and three loggers. Our wilder-
ness was gone and since it was very close to the end we decided to go on and finish the trip. We passed a lumber mill and arrived at the Frazer River. A great expanse of water stretched before us. Two miles below, on the Frazer, was a railroad bridge and a car ferry. This was our terminus for the trip.

Bill and I hitched a ride to Prince George to get our cars, while the girls stayed with the boats. When we drove back we found the girls in a station wagon soundly asleep. The ferry keeper was the benefactor who loaned his car to get the girls out of a cloud of mosquitoes, so thick, they claim, that they could not see through.

Next morning we packed and left for Seattle. The trip was over. On this trip we found adventure, unspoiled wilderness, unafraid wildlife and more white water than we anticipated. The memories of the trip and adventure will stay with us for the rest of our lives I am sure.

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To mix either type of Vyconur you use equal parts of two liquids which simplifies the measuring problems of the polyesters. I have made sample coatings of the color finish on waterproof canvas and even aluminum foil that show no signs of cracking from folding and bending.

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American WHITE WATER
This article is a supplement to "Bush-ed on a Budget." Perhaps least is known about edible plants compared to the other subjects covered in that article. This is, in a way surprising, for in making use of what is available to us in the bush we can considerably lighten the load that we have to take camping. However the present day camper is a strange product, and he takes with him food and equipment which in most cases is definitely inferior to that used by the trapper and explorer who preceded him on this continent by two hundred years!

Almost all plants are edible although some require more preparation than others, and some are more palatable than others. If you find yourself in doubt as to what you can eat, watch for signs of what the birds and animals are eating. If you are still in doubt, place a small portion of the plant on your tongue and wait a few minutes. A sour or bitter taste in itself does not mean that the plant is poisonous, (e.g. grapefruit) but if it gives you a nauseating taste leave it alone. If you still have trouble in deciding, eat a small portion of the plant and wait a day for the results before tackling the rest! A small portion of a poisonous plant is seldom dangerous whereas a large portion may be fatal. If you do eat poisonous food, induce immediate vomiting — this may be your only immediate cure.

Perhaps I should add a more cheerful note and say that most of the plants discussed have high nutritional value as well as being palatable, and will add a pleasant supplement to your meals. The voyageurs and Indians relied on these plants to complete their meals. The biggest obstacle in accepting wild food is to overcome our cellophane-wrapped super-market prejudices — this is something that the voyageur never knew. So I recommend that the beginner start with the more easily recognized food in the spring. Do not rely on wild foods as your only source, but make use of them when possible.

ROOT PLANTS

CAMAS A member of the lily family, this plant isn't unlike the hyacinth in appearance. Its leaves are long and narrow — like grass — the stem stands about 12" high and bears a spike of beautiful blue flowers, from about ten to thirty on its stem. The nutritious bulb is found 4" under the ground. These onion-like bulbs are white and have a glutinous sweet taste when eaten raw and turn brown with a pleasant sweetish taste after cooking. Like many root plants it almost resembles the chestnut in flavour. Like the hyacinth the cammas grow in moist rich soil. Sometimes they form great stands in meadows.

The bulbs can be cooked by boiling or by covering with clay and cooking directly in the fire, but neither method is as good as steaming. To steam a quantity of bulbs, dig a pit and line it with flat stones. Now light a fire on top of the stones and when they become good and hot remove the fire and line the pit with grass. On top of the grass heap your bulbs and cover the whole with earth. Leave the pit until it is absolutely cool, then recover your bulbs.

A good bread substitute may be made from the camas bulb, or even a pie filling. Many an early Pacific explorer claimed that this plant saved him from starvation.

TIGER LILY. This plant is straight stemmed and stands 12-18' high. It has narrow pointed leaves coming from whorls on the stem, and six to nine drooping blooms. These are orange in colour with brown spots, and long anthers bright with yellow pollen protrude from each bloom. You
will find it in low rich soils along streams or in the moist soil of woods. Carefully steamed, the bulb can be an excellent substitute for potatoes. It has a slightly bitter taste. The large scaly white bulb may also be cooked by boiling.

Similar to the tiger lily is the mountain lily. Large stands of these plants with their big colorful blooms of red or orange trumpets (with darker markings than the tiger lily) may be found on higher ground. Otherwise both plants are very similar.

**Wild Onion.** Also a member of the lily family. There are numerous species of wild onion. The straight stem grows to about a foot in height, and with a sometimes bent flower head, bears light pink coloured flowers. The plant has the characteristic narrow onion leaves and the familiar onion odour. Some species grow in between rocks in sandy soil while others like the soil of moist meadows. When cooked the familiar onion odour disappears and a sweet brown syrup results.

**Bitter Root.** or the sand hill rose, the state flower of Montana.

It is usually found on higher ground and has a low growth. The leaves are narrow and fleshy, about 2” long and like those of the portulaca. When the leaves die it is followed by a red blossom which closely resembles a rose in appearance.

When the young shoots first appear in spring, dig up the roots. These may be used as a potato substitute and have...
a bitter taste, hence the plant's name. Removing the thick scaly outside of the bulb may help to remove some of the bitterness. The bulbs may be eaten raw or they can be boiled into a purplish jelly.

**ARROW HEAD.** This plant is sometimes known as the Indian potato or Wappato. It obtains its name from the arrow-head shape of its leaves. It is found in ponds or slow moving streams, usually in shallow water with a mud bottom and has spikes of waxy flowers above the water. The tubers are the edible portion and may be found in the thick mud of the river bed. They cannot be uprooted by pulling the stems, as these come adrift easily. Indian squaws obtain the tubers by wading in the water and uprooting them with their toes. After cooking the tubers have a slight sweetish taste resembling a chestnut. Incidentally, arrow head roots may be bought in grocery stores in Chinatown, and when you see a duck on a pond "duck-diving" the chances are he is after the same!

**WILD CLOVER.** This is one plant that needs no description. The roots of clover are eaten after being dried or smoked first and are said to be not altogether unpleasant. The northwest coast Indians enjoy eating the dried roots by rolling a few together and dipping them in fish oil. The roots are best gathered before the plant reaches a flowering state.

**SILVER WEED.** A herb of the lake, sea shore and river banks, this plant bears a single yellow flower on a long straight stem. Its leaves, or rather leaflets, are very fine with a feather-like appearance that...
make the stem appear thicker than it really is. The leaflets that give the plant its name are coloured green on top and silver beneath. Both leaflets and stem are covered with fine hairs.

The roots of this plant are eaten raw or roasted, and the leaflets may also be eaten as pot herbs. The Pacific Northwest Indians used to cultivate this plant by the acre and would rely on it as their main source of food in the spring, but with the advent of the white man these large stands have disappeared.

LIQUORICE-ROOT. This perennial herb is a member of the pea family. Its branching stems grow to about two feet in height with showery pink flowers at the top, which give way to flat net veined seed pods characteristic of sweet peas in appearance, although smaller. The leaves are set opposed to each other on the leaf stems. The roots are edible and served as you would carrots. A mature root is the thickness of a man's finger. They are best collected in the spring before the new growth has started, or in the fall. During the summer months they have an unpleasant woody flavour.

CAT-TAIL. If you are unsure of what a cat-tail is refer to the diagram. It is extremely common around lakes and rivers, and is an exceptionally good food source which I covered in detail in my first article. However here again are some of this plant's potentialities. The roots may be eaten boiled or roasted or can be powdered into a white flour. The young leaf shoots may be eaten in spring as greens, and the yellow pollen in season may be made into a mush and baked into cakes. However how do you bake a cake in the bush? I didn't cover this in the previous articles as I was dealing strictly with survival and this is a luxury, so I have included a diagram of an oven which can easily be erected in the bush if you have a container such as a biscuit container or large can. We found ammunition boxes ideal! Bread may also be baked in this oven. Sunflower seeds or pine cone seeds may be crushed with the prepared flour from a cat-tail root, mixed with a little water, and baked into a very good bread substitute.

WILD CARROT. A coarse plant found near water or in waste places. It belongs to the carrot family but closely resembles poisonous water hemlock in appearances, so great care should be taken in selecting them. The leaves of wild carrot look similar in a feathery appearance to those of the cultivated carrot. It grows to about two feet in height and has a late bloom of massed white flower heads at the top of the stem about 2” to 3” across, with a hollowed centre to form a shallow bowl. The roots are eaten as carrots, either raw or cooked, and they are extremely nutritious. However if you eat water hemlock by mistake chances are, like Socrates, that you won't live very long afterwards. Water hemlock was covered in detail in the first article. Its leaves are not as feathery as the wild carrot. The surest method of distinguishing the two is to slit the roots in half. Water hemlock's roots boast air chambers, a drawing of which I have included. However, if there is the least bit of doubt to which plant you have found leave it alone, for I am sure that many a voyageur died because of this simple mistake. If a mistake is made, remember that you must induce immediate vomiting — it may or may not save your life!

A continuation of this article, with illustrations of many of the plants, will appear in the November issue.

WANT ADS

For sale. One HAMMER Slalom foldboat, new (display boat), Hammerit hull, complete with bags, paddles, spraycover. $140.00. Rolf Godon, 15 California Street, San Francisco, California.

Chauveau GT 52 single, almost new, with sail, carriage, flotation bags in sturdy 35” plywood crate. $165.00. M. Ferre, Box 432, Ridgefield, Connecticut.
Disappearing Rivers

By Marc Favarger

Federation Suisse de Canoe

(Translated from March, 1960 Camping, Touring, Canoe)

Although our dams have multiplied, we Americans sometimes don't realize that there are many other forms of energy than in Switzerland. Moreover, as electricity replaces gasoline, waterpower has raged in our land, but now this epidemic has spread to other countries on Switzerland's borders, and to places where we had been finding last refuges for sporting cruises and peaceful tourism.

The list of water-courses threatened by damming is getting longer, these days, in a deadly rhythm. The lower Sarine, the Ain, in its most beautiful part, the lower Verdon, the upper Rhine, the Spoel, and the Reuss are only random choices from the list.

Where is it going to stop? Can't we really do anything to preserve the natural beauties of some few superb rivers or parts of rivers which could serve both as beauty spots and as places for the practice of our sport?

I believe one concept is coming slowly to the fore: that man does not live solely by kilowatts, horsepower, or technical conquests. His well-being requires the joy and relaxation that can only be gained through contemplating the beauties of nature. Now that even the Spoel—the only river that crosses our National Park—is condemned, the proposal to create a natural reserve of some rivers left in their natural condition must find a favorable reception.

Already, the project for hydroelectric power on the lower Reuss, the last river of the Mittelland which has not been dammed, has solidified a considerable opposition. The measures taken for the protection of the Aubonne, threatened by an absurd dam project, have suc-
ceed for the moment, saving temporarily at least that beautiful river.

But we mustn't deceive ourselves: King Kilowatt is powerful! And it is time for the Swiss Canoe Federation to fight for its interests in this field in a more active fashion than in the past, even if that means more work and expenditure. Even though our voice is feeble and without a great audience, it is preferable to go down fighting, doing what one can, rather than leave things to the tender mercies of the despoilers.

Another thing to think about is the fact that it is no longer only the mountain climbers, the canoeists and the bird-watchers who seek their relaxation outdoors, in communion with nature. During the last decade, encouraged by the camping and automobile touring movement, an immense flood of population pours out to the banks of our lakes and rivers every weekend and every vacation.

It is a cause for rejoicing to observe that some modern people seek their leisure joys in communion with nature, on the water and under the sun instead of among the imbecile pleasures of the metropolis. But no one, the nation or the canton less than anyone else, had foreseen this evolution, and as a result the campgrounds, beaches, and the few public lakeshores are so crowded that they have become a source of inspiration for caricaturists.

And the banks of rivers that are still public will increasingly become the goal of summer visitors. Up to now, as is well known, the Swiss Canoe Federation has refused to acquire campgrounds of its own along the rivers. It has refrained in consideration of the fact that the canoeist is essentially individualistic, and takes no pleasure in great concentrations of campers; he prefers to find his own tenting spot, however tiny and remote.

But unfortunately such little remote tenting spots become every day more rare. And we are perfectly justified in asking whether the Federation would not be well advised to secure certain beautiful campgrounds on the banks of rivers that interest the canoeist, insofar as it is financially possible.

Let's admit that one could conceive of arguments pro and con, but it would require more time than we have to weigh them.

This problem might well be considered too on the international level. What would you think of a major plan of action by the International Canoe Federation on behalf of those unhappy canoeists involving the rental or purchase of a slice of canyon of a particularly picturesque river somewhere in Europe, which would become a canoeists preserve? What canoeist would not be delighted to learn that a part of the canyons of the Ardeche, Verdon, or some other classic river would become his refuge?

However audacious this proposition may appear, its realization should remain an eventual possibility for the I.C.F., even if each canoeist must make a modest contribution. And would not such an "international canoeists' park" constitute a factor in mutual human understanding in spite of frontiers, could it not inspire other actions in the same spirit?

Finally, one asks: Can't we all—including the present writer—look inward and ask ourselves if we really have need for all the equipment that we bring with us and that makes us dependent on organized campgrounds, on escort autos, on highways, and such-like things? If we could renounce some of them here and there, this comfort and that luxury, couldn't we be as happy and wouldn't we open to ourselves numerous possibilities of navigation on beautiful rivers?

If so, it could happen that tourism would thrive again and live a long time.
The third annual Hudson River White Water Derby and Giant Slalom has again been organized with meticulous care by the Johnsburg Fish and Game Club. The Giant Slalom was set up on the upper part of the Hudson near North River. There were nineteen gates over a course of about a mile, with the novice class running only the first eleven gates. The expert gates were a little tightly spaced for a giant slalom. After paddling a half mile at full speed it was difficult to negotiate offset and reverse gates in class II waves. For the spectators this provided plenty of thrills and proved once again that the organizers hit upon a good combination: whitewater and slalom in one "package." Although the water level was low the weather was beautiful. On Saturday night white water and cruising movies were shown in the ski hut at the foot of Gore Mountain. There were a lot of tents pitched around the hut, and until late at night the tenters kept sing-songs going around campfires. The safety crews were not kept too busy by the race, since the low water made the going fairly easy with stones the chief hazard.

It is worthwhile to note that the timing of these races was so efficiently done that all competitors could read their times and scores on a huge board just two minutes after getting out of their boats, and printed results were available an hour after the race.

The second Western Canadian International Slalom and Down-River Race was organized by the BC Kayak Club. Radio and press were alerted in time and there were a great number of spectators. The Washington Foldboat Club sent a strong team, this being the only race in their area. Lucie Lude, a recent arrival from Switzerland, lent international flavor to the event. The Chilliwack River had a rating of III, with IV in the upper portion. It is regrettable that although the organizing club did everything to accommodate C-1 and C-2, no applications were received for these classes from the British Columbia Canoe Racing Association. In the land of the original Canadian canoe one should be able to see more canoes in races of this type. In Europe these classes are hotly contested, and boatmanship is developed to the highest degree.

The fifth annual Potomac race, attracting 59 boats and 98 contestants, was the biggest ever. Race Chairman Bob Harrigan and his committee made the whole affair a very smooth-running operation. Low water level held the upsets to a small figure. Innovations this year were radio communications (thanks
to the D. C. Ham Radio Club), a big results board, and medal awards for first place winners in each class. As in the past the Sycamore Island Club provided the finish line as well as camping and refreshment facilities.

The first National Slalom championships held in the East have gone off quite well. Though this event could not be called a "smashing success" from the organizational point of view, canoeists and foldboaters who came from far and near had a terrific time shooting rapids and negotiating the tricky currents of Vermont's crystal-clear but oh-so-icy-cold West River. Previous slalom races have had a small enough attendance to be handled easily; however, due to the unusually large number of competitors it was a gargantuan task to keep the races running smoothly. Led by Chairman Gardner Moulton, the scorers were kept busy all day in a tent tabulating results. The gate judges, though very enthusiastic, were not too well versed in their respective (and soon becoming complicated) jobs. It is the opinion of this reporter that a National Championship of the U. S. should certainly be preceded by weeks of intensive training, discussion of rules, viewing movies, and meetings of the gate judges. An efficient telephone system or P.A. system could have made their jobs much easier.

The course was set up by Paul Bruhin, who was trying to demonstrate what experienced paddlers can do on whitewater. This was no easy playground; the course with its numerous ferry-glides and upstream gates demanded the utmost from everyone's skill. The trickiest spot was right after the start. Gate 2, upstream and tucked in behind a huge boulder, was at the edge of some very fast waves. One had to ferry over ever so gently to avoid being swept down, then reverse through gate 3, turn around on a dime, and take gate 4 straight. All this in the shadow of, or rather just above a 20 foot barrier that meant a possible 300 point penalty once the other gates were omitted. The other gates were an array of upstream, flush, and tricky gates that were not official loops. Upsets were fairly numerous (24 canoes, 10 kayaks) but the safety crews were unusually efficient. Some Eskimo rolls were performed successfully, others were attempted without success.

Saturday evening, after being provided with an excellent meal by the people of Jamaica, we all went to Town Hall, where we saw movies taken by the Colorado contingent, the Ontario Voyageurs, and Eastern U. S. canoeists. It was interesting to compare the techniques used in different parts of the country.
# 1960 National & Eastern White Water Slalom Championship

West River, Jamaica, Vermont.
April 23, 24

## Nationals

<table>
<thead>
<tr>
<th>Class</th>
<th>Name</th>
<th>Team</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>C-1</td>
<td>John Berry</td>
<td>CCA</td>
<td>507.2</td>
</tr>
<tr>
<td></td>
<td>Bob Harrigan</td>
<td>CCA</td>
<td>530.0</td>
</tr>
<tr>
<td></td>
<td>Bill Bickham</td>
<td>PSOC</td>
<td>554.0</td>
</tr>
<tr>
<td>C-2</td>
<td>Harrigan-Berry</td>
<td>CCA</td>
<td>469.5</td>
</tr>
<tr>
<td></td>
<td>Bickham-Bridge</td>
<td>PSOC, BRSC</td>
<td>510.0</td>
</tr>
<tr>
<td></td>
<td>Kerswill-Kidder</td>
<td>CWWA</td>
<td>589.0</td>
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## C-2 Mixed

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<tr>
<th>Name</th>
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<tbody>
<tr>
<td>McNair-McNair</td>
<td>BRSC</td>
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<tr>
<td>Oliver-Davis</td>
<td>AMC-NY</td>
<td>798.8</td>
</tr>
<tr>
<td>King-Huttenbach</td>
<td>AMC-NY</td>
<td>930.2</td>
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## F-1

<table>
<thead>
<tr>
<th>Name</th>
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<th>Time</th>
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</thead>
<tbody>
<tr>
<td>Eric Seidel</td>
<td>FIBARK</td>
<td>334.2</td>
</tr>
<tr>
<td>Rich Schaner</td>
<td>FIBARK</td>
<td>426.2</td>
</tr>
<tr>
<td>Ron Bohlender</td>
<td>CWWA</td>
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## R-1

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<tbody>
<tr>
<td>Allen Schell</td>
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<tr>
<td>Don Sullivan</td>
<td>CCA</td>
<td>688.7</td>
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## F-2

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<thead>
<tr>
<th>Name</th>
<th>Team</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schell-Lake</td>
<td>CWWA</td>
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## Eastern

<table>
<thead>
<tr>
<th>Class</th>
<th>Name</th>
<th>Team</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>C-1</td>
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<td>CCA</td>
<td>507.2</td>
</tr>
<tr>
<td></td>
<td>Bob Harrigan</td>
<td>CCA</td>
<td>530.0</td>
</tr>
<tr>
<td></td>
<td>Bill Bickham</td>
<td>PSOC</td>
<td>554.0</td>
</tr>
<tr>
<td>C-2</td>
<td>Harrigan-Berry</td>
<td>CCA</td>
<td>469.5</td>
</tr>
<tr>
<td></td>
<td>Bickham-Bridge</td>
<td>PSOC, BRSC</td>
<td>510.0</td>
</tr>
<tr>
<td></td>
<td>Kerswill-Kidder</td>
<td>CWWA</td>
<td>589.0</td>
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## C-2 Mixed (same as Nationals. above)

<table>
<thead>
<tr>
<th>Name</th>
<th>Team</th>
<th>Time</th>
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</thead>
<tbody>
<tr>
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<td>BRSC</td>
<td>602.3</td>
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<tr>
<td>Oliver-Davis</td>
<td>AMC-NY</td>
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</tr>
<tr>
<td>King-Huttenbach</td>
<td>AMC-NY</td>
<td>930.2</td>
</tr>
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</table>

## F-1

<table>
<thead>
<tr>
<th>Name</th>
<th>Team</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rich Schaner</td>
<td>FIBARK</td>
<td>426.2</td>
</tr>
<tr>
<td>William Prime</td>
<td>KCCNY</td>
<td>442.2</td>
</tr>
<tr>
<td>Ken Wisner</td>
<td>KCCNY</td>
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## R-1

<table>
<thead>
<tr>
<th>Name</th>
<th>Team</th>
<th>Time</th>
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</thead>
<tbody>
<tr>
<td>Don Sullivan</td>
<td>CCA</td>
<td>688.7</td>
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## F-2

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<th>Team</th>
<th>Time</th>
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<tbody>
<tr>
<td>Weiss-Weiss</td>
<td>KCCNY</td>
<td>1324.2</td>
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## Unlimited

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<tr>
<td>W. Havens (R-1)</td>
<td>WCC</td>
<td>1:16.31</td>
</tr>
<tr>
<td>Ruckert-Lerndmark (C-2 DB)</td>
<td>WCC</td>
<td>1:17.15</td>
</tr>
<tr>
<td>D. Bridge (C-1 DB)</td>
<td>CCA</td>
<td>1:25.14</td>
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</tbody>
</table>

## Hudson River White Water Derby & Giant Slalom

North Creek, N. Y., May 7, 8

## White Water Derby

<table>
<thead>
<tr>
<th>Class</th>
<th>Name</th>
<th>Team</th>
<th>Time</th>
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<tbody>
<tr>
<td>C-2</td>
<td>Hollingsworth-Jamieson</td>
<td>1:11.33</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Scott-Hadwen</td>
<td>1:13.10</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Case-Barardara</td>
<td>1:14.14</td>
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## F-1

<table>
<thead>
<tr>
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<th>Time</th>
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<tbody>
<tr>
<td>Paul Bruhin</td>
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</tr>
<tr>
<td>Richard Schaner</td>
<td>1:07.20</td>
</tr>
<tr>
<td>Ken Wisner</td>
<td>1:08.06</td>
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## F-2

<table>
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<tr>
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<th>Time</th>
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<tbody>
<tr>
<td>Isachsen-Isachsen</td>
<td>1:21.00</td>
</tr>
<tr>
<td>Weiss-Weiss</td>
<td>1:25.40</td>
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## R-1

<table>
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</thead>
<tbody>
<tr>
<td>J. Barnes, Jr</td>
<td>1:33.43</td>
</tr>
<tr>
<td>W. Holt</td>
<td>1:33.53</td>
</tr>
<tr>
<td>Homer Dodge</td>
<td>1:41.51</td>
</tr>
</tbody>
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---

American WHITE WATER
Novice Slalom
C-2
Roberts-Walker .................. 7 8
Hunt-Hand ...................... 860
Scott-Hedwin .................... 966
F-1
Richard Schaner ................ 541
George Siposs .................. 596
H. Steinke, Jr. ................. 637
F-1 Ladies
Ann Kaiser .................... 564
K. Weiss ....................... 657
Elli Boray ...................... 677
Western Canadian International Slalom
& Down-River Race
Chilliwack River, B. C., May 14, 15
(scores not reported)

Slalom
F-1 Experts
George Radzykewicz, WFC
Vern Rupp, BCKCC
Lincoln Hales, WFC
F-1 Ladies
Lucie Lude, Zurich Canoe Club
Liz Wheelwright, WFC
Downriver
C-2
Bracey-Wilson, Northwest Canoe Brigade
F-1
*Vern Rupp, BCKCC
"Martin Feichtinger, BCKCC
George Radzykewicz, WFC
* indicates finished in dead heat

Photo by Vermont Development Commission,
Arkansas River White Water
& Slalom Races
Salida, Colorado, June 10-12

 Intl." & Western American Slalom
F-1
Paul Bruhin, Switzerland ..... 237.2
Erich Seidel, USA ............. 295.9
Eric Frazee, USA ............. 317.8
F-1 Women
Rosemarie Bisinger, Germany . 309.4
C-2
Zuk-Boyd, USA ............... 391.1
Western American Slalom
R-1
Bryce Whitmore, California .. 277.5
Ted Young, Colorado ........ 323.5
Ron Bohlender, Colorado .... 451.2
International Team Races
Seidel-Campton-Frazee ......... 614.6
Kahl-Schaner-Bruhin .......... 625.1
Warren-Bohlender-Young ...... 733.1
U. S. Championship & Intl." Downriver
F-1
Eduard Kahl, Austria ......... 2:19.45
Paul Bruhin, Switzerland .... 2:21.55
Laurence Campton, USA ...... 2:23.57
F-1 Women
Rosemarie Bisinger, Germany . 2:28.0
U. S. Championship
R-1
Ted Young ..................... 2:25.01
Ron Bohlender ................ 2:34.26
Maynard Munger .............. 2:35.06

American WHITE WATER
This is a brief report, the result of a search for river publications in the states and government publications, particularly on river sport. Nearly every state now has motor boating regulations, and in their formation they are based on flat water. Only the four listed below have any real interest for canoeists, number of states contemplating some form of canoeing.

ADIRONDACK CANOE TRAILS. 87 pages and map. New York Conservation Department, 112 State St., Albany, N. Y.


WISCONSIN WATER TRAILS. Descriptions and maps. Wisconsin Conservation Department, Madison. Temporarily out of print. From Oregon came some

The Oregon State Highway Department and Rich Chambers worked together to make up for the lack of publications. Rich sent me the state highway map, showing where we could go in the state. This is an idea that should be standardized and expanded to offset in some measure the lack of river publications.

Canada has done more on publications, especially for Ontario, but all provinces are covered in the 14 page booklet, CANOE TRIPS IN CANADA, with a number of maps and trip instructions. This book is available from the Government Travel Bureau, Ottawa, Ontario.

Two other Canadian publications, not of government origin, are of value. HUNTING, FISHING AND CANOE TRIPS, 138 pages, Canadian National Railways, A. P. Lait, Manager Sportsmans Service Division, Montreal, Quebec. The other, a folder from Algoma Central and Hudson Bay Railway, Sault Ste Marie, Ontario, briefly describe 4 canoe trips and gives rail schedules and fares.

The Public has the right to pass over and along the portage with his effects without the permission of or payment to the owner of the lands, and any person who obstructs, hinders, delays or interferes with the exercise of such right of passage is guilty of an offense and on summary conviction is liable to a fine of not more than $100.00.”
the wire was dragging in the heavy current with sufficient pull to counteract almost completely the efforts of the canoeists. Finally the canoe was able to reach some rocks which enabled the men to jump out and pull the canoe and wire ashore. Trees were selected for anchors and the wire was secured in place. Time 12:00 noon. Then began a series of Keystone Cop comic maneuvers. A 50 pound fishing line was tied to one of the gates and one end of mother 350' length of steel wire was attached to this gate. The group on the other shore began pulling this gate and wire across the river and, of course, the expected happened—the friction on the gate pulleys and the water drag on the wire was too much for the 50 pound line and it parted. The canoe had to set across and pick up this wire in midstream and complete the crossing. After it was brought ashore, it was walked downstream to its gate location. This in itself was no easy feat, as the stiff wire became entangled on rocks in the stream. Finally it was secured in position. Now we had gained some experience and were ready to pull wire number three across. Two throwing Lines were tied together and ferried across the river, leaving one end on shore. The third length of wire was cut
to size and a loop made on its end around the previously hung number 2 wire. The rope line was then tied to this loop and the third wire came across the river in a few minutes. Time 2:00 P.M. Another gate wire was scheduled to go across; however, as time was running out, it was decided to eliminate it and make the course shorter. The gates were then hung from these wires and everything completed by 3:00 P.M., ready for the first contestants. Due to the very short notice on the slalom, only four entries presented themselves.

The first contestants lined up at the starting line and were given the flag. The first gate was an easy one placed at the head of a natural chute; it was navigated without trouble. The second gate was an upstream gate placed in the eddy of a large rock. Gate three was adjacent to gate two and was a reverse gate. Both were traversed without incident. After making another reverse downstream of gate three, the contestants headed downstream for the fourth gate. This gate was placed on a natural chute in the middle of a two-foot ledge. Forty feet upstream and to the right was a large dock. The intended maneuver was to make a fast eddy turn behind the rock, getting farther to the left side of the river on the exit from the eddy. The current was much stronger than anticipated and unfortunately the turn was not completed and they were swept broadside against a submerged rock. Both canoeists took a swim in the cold water and then climbed aboard a rock to await rescue. It took 20 minutes, with 4 men ashore and 2 men in the river, to get the canoe dislodged. The aluminum canoe suffered deep bends in the keel, several sharp creases in the skin, and about a dozen pulled rivets. It was decided that the gate should be moved further to the right side of the river. The second canoe traversed the first three gates and missed the fourth but they did not upset. The third canoe again successfully navigated the first three gates; however, it upset before gate four, both contestants staying with the canoe as it successfully ran the chute without damage. The fourth canoe, manned by Mel Smith of Sylvan Canoe Club and Lloyd Geertz of AYH, succeeded in navigating all four gates and consequently became the winner through elimination.

A good time was had by contestants and spectators. The short preparation did not give enough time to draw many canoeists. However the event was considered highly successful. It is an example of how enthusiasm for canoe slaloms can spread from one club to another and how this spirit can become contagious if other canoe clubs give it a try. We are planning on making it an annual event and would like to announce that the second annual Sylvan Slalom will be run on the Youghiogheny at Ohiopyle, Pa., on April 29, 1961.
Three Components of Work in the Boat
The work in the boat has three basic components: 1. Propelling the boat forward. 2. Controlling the direction of the boat. 3. Braking of the boat (propelling backward).

Propelling the Boat
The oldest, and for us the most interesting, is the simplest method; i.e. propelling by human power, paddling or rowing. For complete understanding, let us mention that we can propel the boat by force of wind, various types of motors and power, or by towing.

Controlling the Direction of the Boat
This is done either by rudders designed for this purpose (steamers, motorboats, Swedish kayaks, rowboats, sailboats, etc.) or by the same means with which the boat is propelled, i.e. by oar (rowboats without rudders); by paddle (canoe and kayak) or by leaning the boat.

Braking of the Boat
This motion, which is essentially a reverse motion, is done by the same means as propelling.

We stay with the boat for wild waters and slalom. For propelling, we use the paddle and leans. For controlling the direction, we use the paddle as well as boat leans (which help immensely by changing the profiles of the submerged part of the boat).

Very few strokes are only propelling strokes. More often than not, we have to include a controlling component. Control of direction results in a larger or smaller loss of speed; every controlling stroke has two or three elements: the basic controlling element, the braking component to some degree and, according to the circumstances, also the component of propulsion. We must realize the mutual relationship of these three components — propelling, controlling and braking, to be able to suppress the braking component when we have to propel the boat forward quickly; on the other hand, to be able to omit the propelling component and utilize the braking components when we have to stop the boat. Accurate and correct controlling of the boat means saving of precious time and energy in slalom, in down-river racing, and in flat water racing. It is also important in cruising not only to be able to handle difficult parts of the trip, but to do so without unnecessary effort. Therefore, the basic technique of controlling the direction of the boat should not only be all-important for slalom, but also a fundamental technique for all paddlers.

If we wish to perform all controlling movements efficiently, we must first realize how they work, which movement contains more of the braking component, and in which the propelling component prevails. We will familiarize ourselves with several basic principles.

The Point of Rotation and Greater Mobility of the Stern.
A moving boat meets the resistance of water and forms a wave at the bow. Water being separated by the bow presses against the boat from both sides and holds the bow relatively firm in its direction. The situation is different with the stern. While in the first half, water is forced to move away from the boat, in the second half the boat moves away from the water, as the boat is narrower toward the stern. There is not the pressure of separating water at this
point. The stern is in free water and therefore more mobile. Thus it happens that the point of rotation is not exactly in the middle of the boat, but slightly ahead of the middle. This varies with the construction of the boat — where the widest point of the boat is and how the shape of the bow compares with that of the stern. By various construction of profiles, it is possible to shift the point of rotation forward or backward. In general, usually due to better mobility of the stern, the center of rotation is ahead of the center of the boat.

This can be proven by shifting the load of the boat forward. The result will be that the boat becomes less maneuverable, or entirely unmaneuverable. This is because the point of rotation was shifted too much toward the bow. The deeply submerged bow cannot easily move sideways, while the unloaded stern lacks the necessary support in the water, and slips right and left in a snakelike fashion. As soon as the boat is brought into the desired direction, it tends to turn to the opposite side.

It can be appreciated how important correct distribution of weight (crew and baggage) is and how a change of weight in the longitudinal direction affects the mobility of the boat. For this reason we are able to benefit from the forward or backward lean of paddlers.

The higher resistance of water near the bow proves the well-known fact that if we want to turn the boat it is difficult at the beginning to change the forward motion of the craft. However, as soon as the boat starts turning, the rotation increases quickly. This can be demonstrated by bringing the boat up to full speed and then leaning to one side; by forming an asymmetrical profile in the water, the boat will start turning to the side opposite the lean. It turns to the side where the submerged profile is smaller, first slowly, then with increasing speed until the stern literally skids to the side.

What can we learn from this for practical purposes? At the start of a turn, the stroke must be energetic and has to be stopped before the boat reaches the required direction. The boat starts turning with increasing speed and it will be necessary to use some energy to stop this turning motion, thus bringing the boat back into a straight-forward motion.

Roughly, it can be said that we turn the boat two-thirds in the required direction (depending on the extent of the turn, speed, etc.); if we do not use the opposite turning stroke, the boat will turn too far, and the run will be inefficient and slow.

The Boat is a Lever

This is another important rule in controlling the boat. The boat is a lever, of which one arm is ahead of the turning point, the other behind. If we swing one arm of the lever, the other arm will swing in the opposite direction. Therefore, although the bowman in a canoe works in the front part of the boat, his strokes also influence the stern half. The same applies to the sternman, in direct opposite.

If the bowman uses a draw stroke on one side, the stern will move to the opposite side and vice versa. Therefore, when applying controlling strokes, we are using the principle of a lever which rotates around the center of turning, and which moves together with the boat. When moving sidewise, we act on both levers in such a way that both move evenly in the same direction, together with the turning point.

To better understand the above, the area surrounding the boat can be divided into four fields — the left front field ties in with the right rear field, and the right front field with the left rear.

If a kayaker wants to turn the boat to the right, he will use either a stroke away from the boat in the left front field, or a similar stroke in the right back field; while in the first case he pushes the bow away from the point of stroke, in the second case he pushes the stern away. From this we can see not only the mutual interdependence of both fields, but also that although both strokes will turn the boat to the right, the effect will not be the same. In the
first case, the boat will need more room and time to turn than in the second case. In the first case the boat will lose very little speed, while in the second case it will almost stop. In the first case, the control component was combined with the propelling component and in the second case there was the braking component present. This again demonstrates the principles discussed previously.

Leans of the Boat

The purpose of leans is: 1. To increase the maneuverability of the boat, and 2. To increase the stability in difficult waters.

A. Lean to the Opposite Side of the Turn.

When a moving boat is tilted to the right side, it will start turning to the left. The right side of the submerged portion of the boat increases in area, and, as a result, the boat turns to the left where there is lower resistance. The resistance of the water against which we move, helps us to maneuver the boat. This type of control is used during continuous forward progress.
when there is enough speed.

If we bring the boat into forward motion and lean to one side without paddling, the boat will automatically turn to the opposite side. If the boat is stationary, the lean will have no turning effect, because the pressure of moving water against the bow is absent. Does this mean that the lean has no meaning when the boat is still? Not entirely. One purpose of the lean is to increase the water-line area on one side and thus push the boat to the other side. A strong lean also shortens the submerged length of the boat. By tilting the boat to one side, both ends are lifted above the water, and the submerged contour becomes wider, but also shorter; and the shorter the boat the easier it turns. Simultaneously, the bow and stern become flatter, which also increases the maneuverability of the boat. The lean therefore influence maneuverability, even without speed, or with a low speed which cannot act by pushing the boat sidewise.

B. — LEAN TO THE SAME SIDE AS THE TURN.

For stationary turns, or for sharp turns at full speed, we do not lean to the outside, because we could not work as well with the paddle, and may have difficulty in maintaining stability (overcoming the centrifugal force); moreover, when braking fast, we lose speed so fast that the pressure on the bow would help very little. For this reason, we choose turning on the inside wall of the boat. We lean far from the boat to the side where we want to turn and there we either paddle brace, or hang from the extended paddle, and thus form a pivot point around which the boat may turn. Using this method we unload the bow, so that it can slip easier to the side, while by using the first method, we leave the bow fully loaded to exploit the pressure on the bow. In this way, by transferring part of the paddler's weight to the paddle and forming a turning point far from the boat we can turn the boat faster and safer than
by leaning away from the turn, a method which is suitable for smaller and more fluent changes in direction.

Principles of Mobility and Work on the Boat

Mobility and maneuverability of the boat depend on:

1. Shape of the submerged part of the boat, and partly on the change of the submerged profile caused by a lean.
2. Character of the water (standing, running, smooth, white).
3. Speed with which the boat moves forward.
4. Skill of the crew.
5. Wind.

This means that the direction of the boat is affected by the following:

1. Various paddling and steering strokes.
2. Shape of the submerged part of the boat (This influence is more often larger at higher speed).
3. Wind, current. (Both factors can either help or oppose necessary movements).

If we want to control the boat well, in running and in white water, we must know all the principles of handling it in quiet water first. Water must not be an opponent, but a helper in handling the boat.

Forward motion is caused by pulling toward the point created in the water by immersing the paddle in water — the backward motion is caused by pushing away from the point or by pulling to the point (back stroke) — motion to the side is caused by pulling away from the point or pulling to the point (draw stroke).

During all forward, backward and sidewise motions, we do nothing but pulling-to or pushing-away, either by our own force alone, or assisted by the pressure of water.

ADDITIONAL CHAPTERS OF Vodni Slalom will be published in future issues of American White Water.

The "Marlboro Man" in the HAMMER "Champion" runs the rapids of the turbulent Feather River in California.

This classy Single has been designed especially for the American White Water and built with German craftsmanship and quality. The pronounced rocker, insuring high maneuverability, and the exceptional stability make the “Champion” the ideal single seater in which to enjoy the thrills of foldboating. Other HAMMER quality boats are: The sporty and swift Slalom, the elegant and rugged Wandering and Touring Doubles (Gold Medal Winner California State Fair 1957).

American WHITE WATER
There has been some lively discussion of late on various proposals to preserve the wild scenic quality of three Ozark rivers in Missouri which are the happy paddling grounds of two AWA affiliates and visitors from other clubs nearby.

It is an area of fragile wildness, as the virgin timber stands have long since been razed, but from all accounts it is an area of refreshing beauty, quiet and secluded, yet within a couple of hours drive from the populated areas in the Missouri valley to the north. It is famous also for a large number of remarkable springs and caves, around which several separate state parks have been established. Other parts of the rivers are included in Clark National Forest. Over 80% of the area, however, is in private ownership—and there's the rub.

The National Park Service has made a study of the area and developed a proposal for an Ozark Rivers National Monument of some 113,000 acres, including 117 miles of the Current River, 39 miles of Jacks Fork, a tributary, and 34 miles of the Eleven Point River in a separate area. The monument would contain at various points interpretive facilities, campgrounds, picnic areas, boating facilities, hiking, horse and jeep trails. The NPS report points out the low productive capacity of the soil, the steadily declining population, but its economic justification for the monument is predicated on the development of recreational facilities to accommodate an additional 800,000 visitors (per year?), who will stimulate tourist developments in the adjacent counties which would greatly enhance tax values and compensate twice over for the removal of monument lands from tax rolls. The prospect raises some question as to the capacity of these small streams to support such a heavy invasion of visitors without destruction of their "fragile" wilderness.

Local landowners have grabbed this argument enthusiastically and are strongly opposing the monument proposal. Certain spokesmen quite clearly have a strong feeling for the present quality of their wild rivers and want to keep them as they are. They frown on extensive recreational developments and a heavy invasion of tourists. Not unnaturally, they do not fancy condemnation of their lands under " eminent do-
main," and prefer the multiple use policy of the Forest Service which would allow hunters to hunt, lumberman to lumber, stockmen to graze, and river-front owners to retain their pleasant vistas. There has been some suggestion, also of flood-retardation structures in the headwaters, with facilities for "family recreation" (i.e., outboard parties) on the resultant lakes. The local people propose limited easements along the rivers, under state control as to use and development, thus leaving present privileges relatively undisturbed.

It seems agreed by all that some sort of government control is necessary to assure the permanent preservation of the Ozark rivers. The Missouri Conservation Commission ranks as one of the best, but any state agency is subject to political pressures from business interests. AWA leaders in Missouri strongly favor the national monument, which would set aside a larger area with facilities for a greater variety of activities not limited to the rivers which might absorb the heavy visitor load. But the Park Service is always under heavy political pressure to justify its work by high visitation figures, and its "big ideas" for development of a new area are always a hazard. As a national monument the quiet Ozark rivers would certainly be different—whether for better or worse depends on where you sit, and where you paddle.

This comment is a mere hint of some of the problems involved in setting aside a new area for conservation and recreation purposes. It points up anew the urgent necessity of retaining, unimpaired, the wild and wilderness areas still remaining to us.

To date of adjournment for the National Conventions, no major conservation legislation has been passed by this session of Congress. The sudden decision to reconvene in August may give the conservation forces a last chance to recoup, but the outlook is very poor.

The Chesapeake & Ohio Canal Park bill, finally squeezed out of Interior and Rules Committees, seemed most certain of passage, but the House voted, 227 to 134, not to consider it—that is, they didn't turn it down, they just declined to take it up, for a complex variety of political reasons mostly having little to do with the merits of the bill. It was a bitter blow to eastern conservationists, who had been overly optimistic. Now they will have to start all over again in the next Congress.

The House also specifically prohibited any Interior Dept. appropriations being used to protect Rainbow Bridge from inundation by the Glen Canyon reservoir. This is part of a strong campaign to weaken the inviolability of national parks and monuments.

I had thought to comment here on one of the most extraordinary publications of our troubled times: This Is The American Earth, a book of photographs by Ansel Adams and others, with text by Nancy Newhall (Sierra Club, $15)—but the stupendous grandeur of the photography and the inspired imagery of the words leave me speechless. And any commentary is but a vapid reflection of a profoundly moving artistic creation. I cannot begin to do justice to it: it has to be a personal experience for each individual in the quiet solitude of a wild area. It should be in the library of every affiliate for the inspiration of its members, and of every individual member who can possibly acquire it. Believe me, it's worth every penny of its cost!

Most of us are familiar with the great work of Ansel Adams. There are intimate shots as well as spacious scens, and the work of others is also included as well as a number of historical photographs from the George Eastman House collection and elsewhere. For the most part the reproduction is excellent, though there are instances where the contrast of Adams' originals seems beyond the limits of the process used. Perfection no doubt would have doubled the cost of the volume and negated its purpose.

Many of us, in this over-hasty age, may be tempted to glance at the striking
ing photography and then set the book aside.

DON'T!
For the photography, beautiful as it is, merely illuminates a text that unfolds a vast panorama of compelling poetic imagery that may well move a sensitive reader to tears. Take the time to seclude yourself and absorb Nancy Newhall's full text, for it ranks among the great social documents of our time.

As we turn the cover page, we are stunned by a breathtaking spread of Sierra Nevada in full glory—followed by equally beautiful scenes from Rainier and Glacier Parks:

This, as citizens we all inherit. This is ours, to love and live upon, and use wisely down all the generations of the future.

Now, in an age whose hopes are darkened by huge fears—an age frantic with speed, noise, complexity—an age constricted, of crowds, collisions, of cities choked by smog and traffic—an age of greed, power, terror—an age when the starved eye, the empty heart, the brutal fist, threaten all life upon this planet—

What is the price of exaltation?
What is the value of solitude?—of peace, of-light, of silence?
What is the cost of freedom?
Thus is the theme set forth in the Prologue.

The book opens with the appearance of man in the prehistoric scene—and the devastation he wrought in ancient China, India, and the Roman world (illuminated by a heroic shot by Werner Bischoff)

Man crossed the ocean to find a new Eden—and proceeded to ravish that also. The coming of science hastens the razing of the natural environment: there is an eloquent series of four aerials—the bulldozed clearing, the foundations, rows of houses, and you turn the page—and you are hit with a suffocating spread of a metropolis.

To what shabby hells of our own making do we rush? A poisoned, gutted planet, . . . its rivers dead, its mountains shrunk to slag heaps, its last valley coated to catch the dirty rains, deadly rains, 

Is this age, the age of his . . .

Shall these st humbly heaven?
You shall set its musi from the shall set the earth

You shall never know

You shall never know . . .
You shall never know

Many W

To what shabby hells of our own making do we rush? A poisoned, gutted planet, . . . its rivers dead, its mountains shrunk to slag heaps, its last valley coated to catch the dirty rains, deadly rains, 

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You shall never know . . .
You shall never know

Many W
I read recently of a single-paddle stroke of the above name. It is used when taking a Canadian canoe through high broken haystacks: "Without flamming, the canoe would be filled with foamy feather water. At the crucial moment the bowman reaches forward with his paddle and vigorously sweeps it back and forth like a broom, directly in front of the bow, knocking a hole in the white water through which the canoe shoots."

Can this stroke, like so many others be adapted to what Frank Luzmore describes as "proper double-bladed paddles"? After lengthy discussion and exhaustive experiments Hubbard and I think that it can give us not one, but two new invaluable kayak strokes.

1. SLOOCHING. When approaching haystacks lean forward, and reach out with one blade ahead of the bow. At the crucial moment slice down, round and up, cutting a section out of the standing wave approximately to the cross-section of your boat at its widest part. Wasting no time, pick up this piece of water with the flat of your paddle, and remove it to a safe distance. Handle carefully to avoid breaking the yolk. Your tiny vessel will now slip through the wave with none of the alarming splashing usually associated with haystacks.

2. WHAMMING. Again lean forward and reach out over the bow. Hammer the high water ahead repeatedly with the flat of your blade until it is level and smooth. Treat as for Grade 1.

Such advanced strokes as Slooching and Whamming should only be considered by the most experienced. The starting position is in both cases suitable for a Pawlata.

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**Canoeing Articles**


I Opened the Hinterland by M. Ellis, Il, Field and Stream, 65: 60-62 May, 1960

Traveling the Canyons White Water Highway by Katie Lee (one of our members), Arizona Highways, p 28, June 1960

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**New Slalom Rules**

The International Canoe Federation announces that it is in process of printing the revised slalom rules.

Bob McNair, 32 Dartmouth Circle, Swarthmore, Pennsylvania, is serving as liaison with ICF for the new publication. Those interested in securing copies of the new rules are requested to get in touch with Bob.
SAFETY

as we see it

by Red Fancher, Safety Chairman

Only three accident reports have been brought to the attention of the chairman thus far for the year. We would like to believe that there were no others.

In case No. 1 a foolhardy athlete fully equipped with one arm in a cast from a previous accident used a canoe for a one-man fishing venture on the Mississippi River. Cause of the upset is not known. Luckily his calls for help attracted attention of some dock workers and they were able to reach him before he was swept over a dam.

Case No. 2. Not so fortunate were the two lads who attempted to shoot an 8-foot dam in the Desplaines River near Chicago during the spring high waters. Your chairman was able to visit the location of the accident just one week later and gain additional information from some of the men that attempted rescue and recovered the bodies. At least one boy was rated as a capable swimmer and canoeist, yet logs and other debris trapped and tossed about in the surface eddy at the foot of the falls did not warn them that the attempt would be suicide. Because of the 70° pitch to the falls there was no spectacular back wave to give them additional warning. Just a vicious boil returning about half of the flow back upstream and under the surface eddy. I saw one log tossed half its length completely out of the water.

The boys wore no life jackets—had they been wearing HIGH BUOYANCY vests it would seem possible the surface eddy would have supported them until rescue workers reached them. Only educational programs can prevent accidents of this type, and perhaps swimming techniques in life vests must be developed. COME ON YOU WHITE WATER PATROL.

Case No. 3 was reported by Oz Hawksley via a news clipping from the Deseret News & Telegram, Salt Lake City, Utah. The article is not clear as to details, but it seems that a rubber raft had upset when it hit a rock in Cataract Canyon. The body that was recovered by another river party was floating face downward, still wearing a life jacket. Head injuries might have occurred before or after death. An attempt is being made to learn more of this accident.

Safety-minded conservation officers have been trying to prevent such accidents by controlling the types of parties permitted to make such runs. It would not take many accidents such as this one to cause the river to be forbidden to everyone.

Life Vests

Our first attempts to test life vests were badly hampered by cold weather and water. Our demonstrators were Miss Ann Tubbs of Ypsilante, Michigan, and Mrs. Doris Lambert of Perry, Michigan. They were a lively contribution for improving the looks of the vests but we did not have good camera weather. Both girls were greatly interested in the test because of their volunteer work with the American Red Cross water safety program.

Both girls used shallow breathing to compensate for their natural feminine buoyancy; on the other hand as they were working in swim suits there should be some adjustment in the results for the normally clothed accident victim.

Two commercial kapok filled vests of Type 1, U. S. Coast Guard approved were tried. We did not verify the buoy-
ancy of these vests, but because they carried the Coast Guard approval it can be presumed they met the minimum requirement of 15 pounds. In both cases the chin was barely kept out of the water, not leaving much room for breathing. One vest of my own design that carried only 12 pounds of buoyancy gave similar results; this vest had more of its buoyancy below the arm pits. By adding six pounds of buoyancy to the lower sections of this vest we obtained much better results, keeping the shoulders clear of the water.

Any buoyancy carried above the shoulders is not functional to my way of thinking. Further proof was in the Gentex "Dolphin" vest that we tested. This vest has a fixed front pack of only $\frac{12}{2}$ to 13 pounds of buoyancy, but as this buoyancy is all below the armpits it gave as much support as the 18 pound vest mentioned above. This front pack would not give much interference to the double-blade paddler, but has a high peak across the chest that would not be too comfortable to the single-blade user. In addition to the front pack the "Dolphin" has a 6 pound floating pack on the back that does not give any buoyancy unless the victim is floating in the back prone position. It is supposed to swing up and give protection or support for the head, but in fast water would be subject to the whims of the currents and probably not too reliable in this respect. The "Dolphin" vest was the only one tested that showed strong tendency to float the body in the back prone position. Perhaps it would be better to say that all of the vests encouraged the vertical floating position.

With our 22 pound vest the victim was clear of the water above the arm pits; because of the positioning of the buoyancy material at least 90% of it was submerged and working at this time. Further testing of this vest seems advisable both in aerated water and with a fully clothed victim including heavy shoes.

Head protection seems to be an impossible dilemma. If it is a hinged device such as we find in the "Dolphin" there is always the possibility it will not be in the proper position when needed. If we use a fixed device it can very well force the head forward and greatly interfere with the front prone swimming position. The latter problem we encountered when the crotch strap slipped on the 22 pound vest which has a short extension of the back buoyancy pack.

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**New White-Wafer Book**

Our sport has very little in the way of literature. Particularly in English, a beginner casting about for information on paddling skills, rivers, or ways of getting in touch with like-minded people has been lucky if he found a library with some old magazine articles.

You would have thought, from the stony eye that publishers gave us, that white-water sportsmen were a small eccentric band.

Now a change is on its way. White Water Sport, a thorough authoritative book with copious illustrations, has just been published by Ronald Press, 15 East 26 St., New York 10. We take pride in pointing out that its author, Peter Whitney, is the Western Editor of this magazine.

Peter wrote the book last year after leaving the New York Times to become a free-lancer. Thanks to the guidance of experts in our ranks, White Water Sport is probably the first book in English to deal at length with the Duffek technique in the kayak and with the center-pivoted, spraydecked slalom canoe. It also has a chapter on club cruising and safety that reflect Peter's experience with the KCCNY, the Appies, and the Sierra Club.

White Water Sport will be reviewed in our next issue. Meanwhile, your bookseller can get it for you at $4.00 (128 pp. 96 illus.)

American WHITE WATER

This is a fine textbook covering the field of recreation on public lands with commendable thoroughness. It explains which agencies control what areas—national forests, national parks, state parks—and the historical development of each type of reservation, their differing characteristics, purposes and limitations. There is an illuminating chapter on the economic values of outdoor recreation, in which considerable stress is laid on the imponderable economic values in terms of improved well-being of the individual through complete change of environment, physical and spiritual regeneration, development of latent skills and enterprise, all of them contributing to a more productive worker and a more useful citizen in the community. The book is illustrated with many striking photographs and there are a number of tables which point up the terrifying increase in recreational use of public lands. Included also is an interesting chapter on national parks in other countries, from England to New Zealand. Not the least valuable asset of the book is the exhaustive bibliographies at the end of each chapter. As a textbook, it recounts facts and figures, and it takes no sides in the controversies over exploitation, forest harvest, mass use vs. wilderness values. One thought sticks in our craw like a fishbone; the prospect of a four-day week and three-day weekend on our wild river, is most alluring, but heaven help us, how will our national parks and forests withstand the consequent massive assault?


This is a fascinating study of the changing attitudes of organized society toward wild nature, starting with the Pilgrims, to whom any activity which was not useful was vicious idleness—even hunting and fishing beyond immediate needs—and the wilderness was an enemy to be tamed. The author is not concerned here with the explorers or the lads in buckskin who lived in the woods, but with the thinking of the leaders of organized communities—the writers, the painters and the poets who influenced the attitudes of those communities.

Early terror of the wilderness slowly gave way to awe—we read of the "awful shadows" of the woods, the terrifying roar of Niagara Falls. In the early 19th century, however, the more intrepid travelers wrote—and painted—quite rapturously in praise of the wondrous sights of nature and the spiritual uplift to be derived therefrom. An increasing number of tourists were moved to go out and see for themselves, though tourism was rough: most tourists rode horseback, the ladies sidesaddle, of course, even to the summit of Mt. Washington! The painters were of course the photographers of those times, making sketches of what they said to be later translated into paintings to be sold or from which engravings were made for mass publication. It was the era of romantic enjoyment of the emotional elevation of outdoor experience, and writers, poets and printers were all given to eloquent hyperbole.

A chapter on the development of city parks is followed by another on the movement westward, and the discovery of the sensational scenery of the Rockies and the Sierras. The senior Olmsted moved from Central Park to Yosemite, and John Muir preached preservation of certain extraordinary areas just for their esthetic value. Came the first Roosevelt and the era that saw the beginning of Conservation of our natural resources, beginning with forestry. For Gifford Pinchot, however, the term meant better, more scientific use of the land for richer harvest on a sustained yield basis: he could not at that time comprehend Muir's philosophy of the esthetic value of the wilderness and the need to preserve that intangible asset.
as well as material resources. The two clashed head-on over the Hetch-etchy dam, and Pinchot in the end won approval from Congress for that ill-starred project. This last chapter of the book does much to clarify for the lay reader the peculiar, almost fanatical conflicts that still persist within the broad conservation movement, which greatly weaken their effectiveness in defending our glorious wilderness heritage.

The book is illustrated with delightful vignettes with each chapter and with three "signatures" of plates, most of them reproductions of old paintings from a variety of sources, even a bandbox and china, illustrating the prevailing notions of the various eras. Some are overly prettified, some are plain ludicrous, and many are impressive. The startling photograph of Niagara by the author's wife communicates the terrifying impact this great cataract must have had upon early visitors. This rich volume provides the reader with an invaluable historical perspective to present-day conservation attitudes.


David Coyle takes up where Hans Huth leaves us, though in a very different vein. Where the latter is concerned with the leaders and shapers of public thinking, Coyle writes of the political campaigns which translated that thinking into reality. The scandalous exploitation of public lands and unrestricted destruction of natural resources had made the time ripe for forthright leadership in a vigorous political effort to save what remained. The fortuitous combination of Gifford Pinchot and the first Roosevelt inspired a series of actions and conferences which implanted very deeply in the public consciousness the basic understanding that our "limitless" resources were in danger of exhaustion if reckless exploitation continued. They preached the gospel of conservation far and wide, and insisted that the far-sighted, scientific use of our lands, private as well as public, was a proper concern of the federal government.

Pinchot in the previous decade had been successful in convincing leading timber interests that "sustained yield" harvesting was more profitable than the old "slash and get out" system, and to him "conservation" always meant wise use of our natural resources. One suspects that Coyle rather shares this view, as there is scant reference in his book to conservation of wild areas for esthetic and recreational purposes. Though neither the Forestry nor National Park Service was created by TR, the state conservation agencies were the direct result of the governors conference on conservation which he summoned, and many later developments were foreshadowed in that era. His tremendous energy and enthusiasm for the outdoors provided a great impetus which carried conservation forward through the lean post-war years.

Things were in a pretty bad way all around when the second Roosevelt came to the White House: dustbowls, unemployment, lost farms, and general social disorganization. FDR went to work picking up the pieces: for ten years the CCC took boys out of the slums and put them to work rehabilitating our forests and parks. The Norris TVA Act revitalized a whole region of the South. The Soil Conservation Service was set up to show farmers wiser methods of land use. Irrigation and water power resources were developed; rural electrification brought electricity to virtually every farm. River basin development, conservation of fuels, water and mineral resources, and finally wildlife — to each of these Coyle devotes a chapter, recalling the often vicious political dog-fights which each new aspect of conservation involved, right down to Dixon-Yates and Hells Canyon. This book makes exciting reading, and for one who lived through the era it brings back vivid memories.

Reviewed by Dan Bradley
This summer AWA has made great strides, with membership reaching a new high. AWA has received recognition as an enthusiastic and mature organization, and our Journal has received many acknowledgments.

Although we are just approaching the 1,000 mark, our membership goal is 5,000. We feel that such a number can finance a paid staff, and yet will not be so large as to lose the feeling of knowing the other boaters in the U. S. and Canada. The thought of 5,000 members may at first seem oppressive, but when we divide this among all the States and Provinces it is very apparent we will not be crowding each other off the rivers.

A number of the Affiliate clubs are sending their newsletters to the Executive Secretary. The Ontario Voyageurs not only print a fine monthly paper, but also announce each trip with a detailed map and written summary of the scenery and water condition. The Canoe Cruisers Association also sends out a fine paper that not only deals with all phases of boating, but outdoors, camping and conservation as well. Some notes gleaned from their paper are: the local Boy Scouts have purchased about $1,000 worth of camping and canoeing equipment which they plan to rent (canoes $2.50-$3.50/day, life-jacket 15¢/day, etc.) to local outing clubs. The boys will keep the boats in repair, and the project is to be self-supporting.

Randy Carter's new book Canoeing White Water in N. Virginia and NE West Virginia is a honey. There are many ideas in the book even for those who never expect to boat in that area. Peter Whitney's long-awaited book White Water Sport is off the press. Every white-water enthusiast will want a copy. Available through Ronald Press, 15 E. 26th Street, New York 10.

There is a problem that bothers a great many of our members—What rights do we have on the rivers? Can we touch ground only below the high water line, or not at all? Can the rivers be fenced? Can fences be constructed so as to block the entire width of the river? Since the legal question is usually governed by state laws (or is it?) our lawyer members are invited to give us their opinions. Those members interested in helping with this problem please send me your names and the areas in which you can do research. A special group of investigators will then be formed. Along the same lines Keith Anderson has given us a legal opinion on the subject of AWA sponsored trips, incorporation, and responsibility. This report was reproduced in full in the Executive Secretary’s June report, and has been sent to all affiliate clubs. Anyone now organizing a club race or trip can secure a copy of the opinion by sending your request to me.

American White-water Affiliation and its affiliated clubs are becoming a well-known, respected, and important boating
The American White-water Affiliation

ADVISORY COMMITTEE
Consists of the current Executive Secretary, the past four Executive Secretaries, and two members at large. Duties consist of considering and recommending long-range policies and nominating the Executive Secretary.

EXECUTIVE SECRETARY
Administers operation of the AWA. Appoints Chairmen of the Service Committees. Serves as Chairman of the General Committee and the Operating Committee.

GENERAL COMMITTEE
Executive Secretary serves as Chairman. Consists of the Affiliate Representatives and the members of the Operating and General Committees. Duties consist of formulating policies for the AWA, electing the General Secretary and voting on Constitutional amendments.

OPERATING COMMITTEE
Executive Secretary serves as Chairman. Consists of the Chairmen of the Service Committees. Duties consist of the execution of policies and administration of the affairs of the AWA.

ADVISORY COMMITTEE FOR 1960

CLYDE JONES
5525 E. Bails Drive
Denver 22, Colorado

MAURICE POSADA
417 Riverside Drive
New York 25, New York

OZ HAWKSLEY
Route 5
Warrensburg, Missouri

HAROLD KIEHM
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ROBERT McNAIR
32 Dartmouth Circle
Swarthmore, Pennsylvania

SIGURD OLSON
Box 157
Ely, Minnesota

ERNIE F. SCHMIDT
7 Dobbs Street
Bernardsville, New Jersey

See title page for names of officers and other committee chairmen.

American WHITE WATER
organization—there is no turning back. We are reaching some of our goals far sooner than anyone predicted, and all sorts of interesting possibilities are opening up. Let's all pitch in and help our magazine staff and our Committee Chairman as well as our local clubs.

All members of AWA can share in the pride that we are becoming a respected organization. One runs across references to AWA and our Journal in professional recreation publications, Congressional hearings, boys' magazines, camping and conservation magazines, and books. We are being requested with increasing frequency to allow quotations or reprints. The AWA has gained national and international respect, and we must do our utmost to maintain this position.

Some things we must do. We must continue to foster an expanding and searching safety program. We must expand our conservation program and make every member aware of how important his interest is and how he can participate. We must begin to publish guidebooks. We should consider a junior program. We should discover methods to get our program before summer camps and boating instructors.

To accomplish these and other goals we must urge all boaters—both experienced paddlers and those all-important "first-year" people—to join us and come boating with us. We must also urge all local clubs with boating programs to become affiliates and help us implement our program. Any member who wishes to help in AWA need merely contact the Executive Secretary with his questions-ideas-answers-criticisms or just plain offer of help, and the Secretary will put him to work.

Organization. Because we are often asked by new members, "How does AWA function?" we have worked out a table of organization. For current names and addresses see the title page of this issue. For further details see our proposed constitution (Fall, 1959, AWW).

Clyde Jones
5525 E. Bails Drive
Denver 22, Colorado

DESIGNED by a Canoeist
FOR
Canoeists

The tent that is:
Lightweight and small in bulk
Quick & easy to erect & strike
Bug tight
Roomy inside in all weather
Place to cook under when it rains
Adaptable for any terrain
G-d wearing qualities
Size—just perfect

Write us for a descriptive folder outlining the features of this superb tent. We'll send you a sample of the material used so you can see how light and strong it is.

Barnard Wilderness Tent Division
Lincoln H. Foster, Yacht Sailmakers
Oshkosh, Wisconsin
P. O. Box 812

American WHITE WATER
A Slalom 515 on the Merced River below Yosemite, California

... with no other sound in his ears but the roar of white water.

... with eyes for nothing but the tossing spray

A Sportsman Is In His Element
With a Chauveau Kayak

For Information Send Postcard to:
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2633 Hillegass Ave.
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In accordance with specifications by white water experts, this Klepper Champion was specially built to meet the stern challenges of tough competition. The sleek, rugged Slalom '59, fastest and most maneuverable craft afloat, maintains a proud tradition of leadership ... Kleppers have won world's championships in all the major folding boat Slalom contests.

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