

# *American* **WHITE WATER**



**Autumn 1962**

*the Journal of the American White-Water Affiliation*



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# American WHITE WATER

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Dear Peter:

I just returned from my tour through continental Europe. I saw some marvelous rivers and met quite a few paddlers. I was most impressed by the high standard of paddling in Switzerland. Their kayaking and canoeing seem to be a matter of skill and perfection rather than muscle power. I watched the young boys in the Zurich club and I only wished I could start all over again. The control they have over the boats is simply amazing. After watching the effortless way they roll a double canoe you cannot help wondering what do they have that we have not got. I talked to many of them and the answer was always the same. Milo Duffek showed them how to handle the canoe and the kayak.

After this I went to meet Duffek. He is certainly not a tight-lipped racer jealously guarding his secrets. On the contrary, Milo, with his broad grin, is one of the most likeable fellows I ever met. He devoted much of his time to the painstaking job of teaching youngsters and grownups how to handle the boat. As you know, Paul Bruhin and Kurt Vonesch who did so much for our kayakers are Duffek's pupils. Besides being a top-notch paddler, Duffek seems to have the rare ability and patience to instruct others.

There has been a remarkable improvement in our paddling over the past few years. However, by European standards most of us are just beginners. We could well use some instructions in modern techniques and we certainly owe it to our young paddlers. There is no reason why we should settle for less than the best. Milo Duffek plans to visit this continent in summer, 1964. He is willing to devote some of his time to giving one-week courses for promis-

ing paddlers. His only condition is that this would have to be seven full days of hard work, and no fooling around, to get any results.

With a little bit of planning we might even be able to bring Duffek over for a few weeks next summer. I would be glad to put those clubs that are interested in touch with Milo Duffek and to work out details.

Yours,

George Topol,  
1557 Main St., W.  
Hamilton, Ont.

*Ed Note: Let George have your reaction to this proposal, which is full of promise for North American white-water sportsmen.*



Dear Peter:

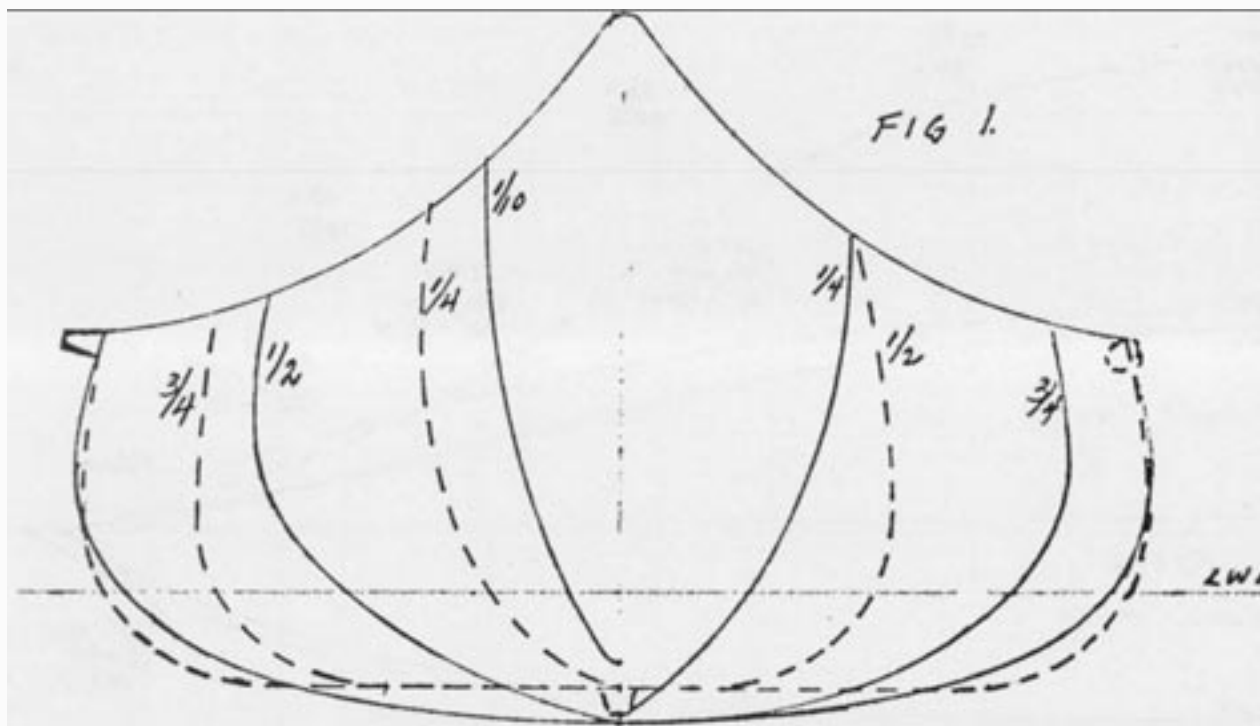
The other day I happened to hear a sad story that I thought you might want to use in the Journal.

It concerns the R-1 paddler who loved to get out and run the rivers on the first high water of Spring, but found that his feet got so cold that he just couldn't enjoy himself. Finally, he invested in one of those alcohol hand-warmers, and placed it up under the foredeck. This worked perfectly for a while, but finally one day the doggone thing overheated and set fire to the boat, destroying it completely. The moral to this story is, of course, that you can't have your kayak and heat it too.

Don't shoot.

R. T. Simmonds  
RR #2  
Oneonta, N. Y.





# The Principles of Canoe Design

By Howie La Brant

Few canoeists know the basic principles of canoe and kayak design which should be observed by anyone purchasing or building one to prevent disappointment in its performance. It is not enough to float, it should perform and paddle easily. Most "do-it-yourself" magazine designs are tubs; many are dangerous cloth-covered skeleton frames. Unfortunately, many manufactured hulls are designed by builders who have never, or seldom, paddled one.

Choose the longest canoe adaptable to your use — it will have more stability, more capacity, draw less water, hold its course better, and paddle faster with two or more persons than a shorter one.

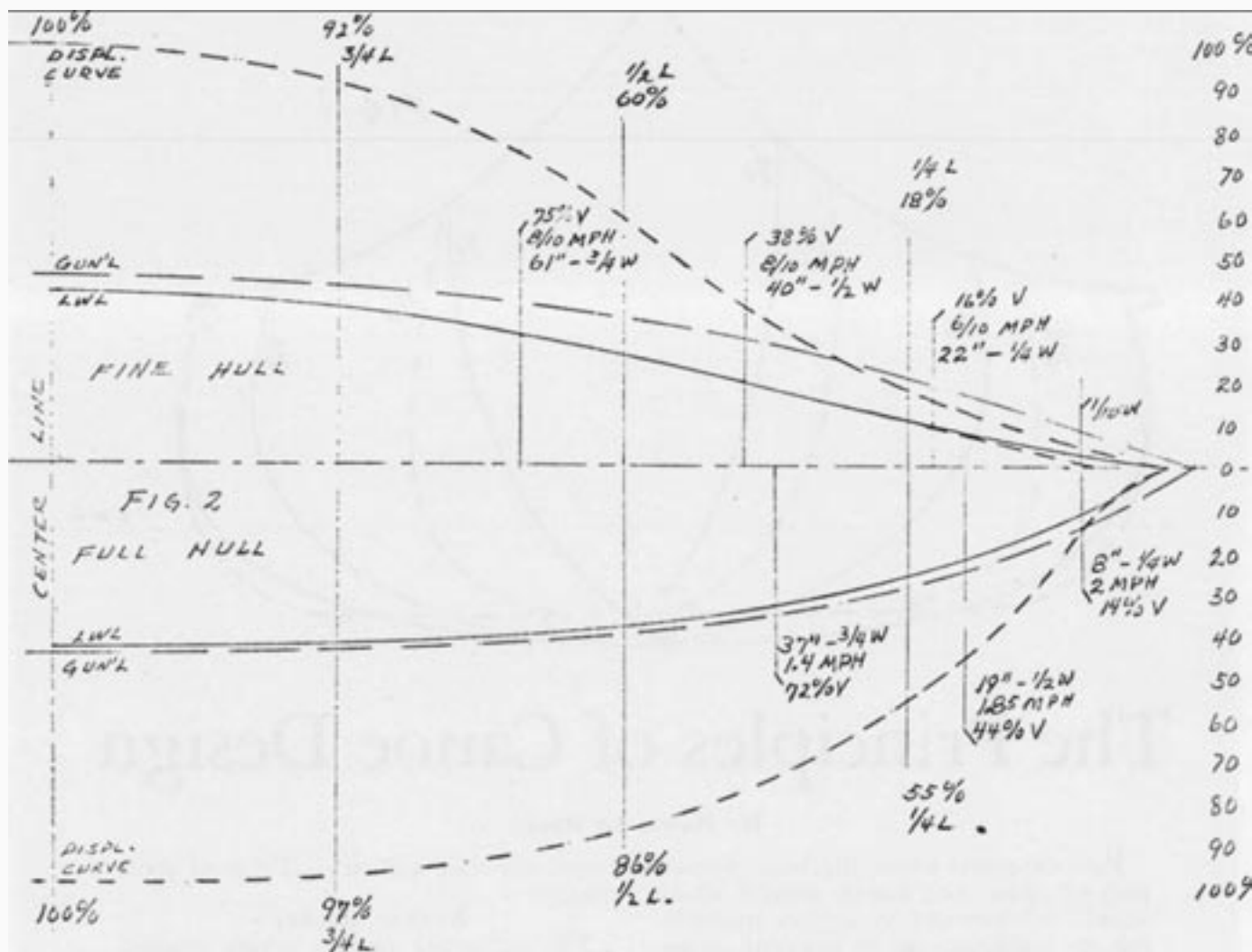
The center half of the hull provides 75% of the carrying capacity and stability; the primary function of the end quarters is to part the water and return it. The form of the hull controls the paddling ease and performance. The greater the ratio of length to width the

faster the hull will be — if it is of good design.

## Keel vs. Rocker

The following factors which control performance and maneuverability can be varied and combined to provide the desired characteristics. If of similar design long hulls hold their course better than short ones but turn slower. Keels help hold a straight course but retard turning and side-slipping, increase draft, and can hang up on submerged obstructions and cause tipping. A hull with a straight keel line holds its course better than one with a high lift or rocker at the ends but is slower in turning and may be pulled off course by some waves.

Very short hulls are slow, hard to paddle and hold on course, especially when wide, with flat bottoms carried well into the ends to increase capacity and stability. Wide, flat bottoms increase capacity a little and reduce draft a bit but this is offset by the keel and



the stiffeners required to keep the bottom from flopping in choppy waters. The increase in stability is more theoretical than actual, as will be explained.

### A Moving Trough

The resistances to movement of the hull are **friction** of the wetted surface, **wavemaking** in the front, and **drag** at the stern.

A semicircular shape produces the least wetted surface but is only practical for racing shells. A wide flat shallow shape produces the greatest wetted surface. A semi-elliptical shape is a good compromise and provides a self-supporting arch which eliminates the need of stiffener ribs and keel and permits some flexing of the bottom to slip off of, or slide over submerged obstructions.

Canoes and kayaks displace a trough

in the water that is pointed at each end. In moving, the hull moves this trough. The moving hull is constantly cutting into stationary water and putting it into motion — pushing it to each side in the form of a wave, and then permitting the water to return in the stern end to fill the trough. The efficiency with which the hull moves the displaced water affects the paddling effort required and the speed attained. Because either end of a canoe may be used as bow or stern it is fortunate that a shape efficient for moving water outward is also, in reverse, efficient for returning the water. The required effort varies with the square of the speed. With a fast hull design you do not work as hard, or you go faster, or both.

Why does one hull move through the

FIG. 3

CHEEK

water easier than another? Consider two hulls both 18 feet long and 36 inches wide, one with a flat bottom and full lines carried well into the ends — a real barge or pusher, as shown with broken lines in Fig. 1. Delineated are the center cross-section and a half section shape at  $\frac{3}{4}$ ,  $\frac{1}{2}$ , and  $\frac{1}{4}$  of the center waterline width. The solid lines delineate an elliptical-bottomed fine-lined, fast hull with half sections at  $\frac{3}{4}$ ,  $\frac{1}{2}$ ,  $\frac{1}{4}$ , and  $\frac{1}{8}$  of the center waterline width.

The longitudinal location of these cross-sections is shown on the quarter plan of the hulls in Fig. 2 which also shows the loaded water line carrying 400 lbs., the gunwale line, and the displacement curve developed. Note that the three sections of the full hull fall within three-eighths of the length from bow end to center while the three sections of the fine hull spread over 60% of the length.

### Parting the Waters

Assume that each hull is driven at a speed of 4 m.p.h., or 6 feet per second, without current or waves. At the location of each section is shown the distance from the point of entry into stationary water, (or exit from the trough at the stern), the speed at which the water is moving sideward, and the percentage of the maximum water displaced at the center. The full hull pushes the water sideward very fast in the first quarter of the displacement length with an initial sideward speed of over 2 m.p.h., which gradually slows down.

The fine hull pushes the water sideward at a maximum speed of only  $\frac{1}{2}$  m.p.h., and initially starts the stationary water in sideward motion very slowly then gradually accelerates the

velocity to about the halfway point, and then gradually reduces it. Both the speed and volume of displacement follow this principle of progressive acceleration and the physical law that it takes more energy to start a mass in motion abruptly than to increase its motion progressively once started.

To judge a hull, turn it upside-down and study the part that is in the water — the form of the hull, the shape of the keel line. The fine-lined canoe shown is slightly hollow forward — but don't be misled into assuming that any fine entry and hollow waterline is fast and efficient! Beware of the cheek shown in Fig. 3. This is a quick swelling of the hull and widening of the waterline; it will paddle easily going slow, as any barge will, but try to push it fast and the brakes go on. The broken line extension from the cheek shows what it really is, the old full hull with an extension.

For comparison a broken-line extension is drawn from the tangency of the hollow of the fine waterline hull, Fig 2.

A white-water kayak with a high lift or rocker of the keel-line coming above the waterline at the ends might have a similar displacement curve to that of the fine-lined hull but a straight to slightly full waterline, compensating for the displacement lost by the lifting of the keel for fast turning. In a rapid the water moves your hull; in cruising your hull moves the water.

### Flat-Bottomed Fallacy

How will design of hull form effect performance in use? The sporting goods salesman expert says the flat-bottomed hull is more stable, but actually placement of weight influences stability more than hull shape. Put two 160-

pound men, four times the weight of the canoe, on the seats of the flat-bottomed hull with the support and center of weight high above the water, lean this weight to one side and what chance has the poor flat hull to stay upright? The same paddlers properly kneeling in the slightly rounded fine hull will have much greater stability. Any canoe or kayak will feel unstable to the beginner until he gets the "feel" — just as will a bicycle, skates, skis, horseback, etc. Some summer camps buy long, wide, flat-bottomed, full-lined "safe" canoes, then put an 80-pound child in the middle to pass a canoe test requiring him, paddling alone, to hold a straight line using a single blade on one side. It is pathetic to see the poor kid wrestle the overgrown meat platter which slides in any direction and would give a skilled man difficulty in a breeze.

Is a full canoe better for rough water because the full bow has more lift to climb waves? Not necessarily; no open hull can bury its bow in a wave above the end deck and gunwale without taking water — a fine-lined hull with a 30-inch end deck will have more displacement lift, without taking water, than the fullest hull with a 20-inch end deck. Bucking wind-blown waves on lake or river is always work and with a hull that is full in the bow, it can be brutal, as the weight of the waves pounds against the blunt end. Fine sharp entry lines split the waves with much less shock on the paddler's arms. A hull with a flattened U-shape near the end pounds on choppy water, throwing the splash straight up to fall back into the lap of the bow paddler as the hull moves forward. A full V and inverted Gothic arch shape at the ends throws the splash outward, resulting in a dryer boat. This sharper section forward also cuts the wave better and reduces pounding, important when sailing.

Gunwale construction is important: Since gunwales and thwart bracing provide much of the stiffness and strength of the hull, they should be strong. The gunwale construction of a canoe should permit it to be emptied of water and mud quickly by turning it over. Wide closed inwales prevent quick and complete emptying, or the "shak-

ing out" of the canoe to empty it if swamped in deep water. Canoes having only outwales empty fastest, and a wide outwale helps knock down wave splash providing as much dryness as more depth would give.

By applying these principles and varying factors we can get desired performance. For example, Pop has an old 16 ft. x 31" x 12" canoe from his bachelor days, worn out and inadequate to carry a wife, three children, and camping equipment. They want to cruise narrow, winding creeks, run some white-water rapids (without the kids), and Pop wants to sail in "C" class races, all of which requires a canoe that turns fast, pivots about its center. In addition, Pop and his old racing partner want to enter some paddling races.

It's a big order. The "C" class length limit is 18½ feet, so we make the width 36 inches and increase the depth to 13½ inches to give enough room for the family and a carrying capacity of over 1,000 lbs. The hull is given fine lines to make it fast paddling or sailing, the center section is elliptical so it will need no stiffener keel or ribs which would prevent it from flexing to ride over a submerged log or slide off a rock in a rapids; without a keel it can be slipped sideward to avoid rocks in rapids. When sailing, the leeboard controls side-slip. Long hulls hold their course well but may turn slow, so to provide fast turning, the keel line is held straight in the center half but in the end quarters of the length is lifted 3½ inches to the tangency of the curved bow stems.

Wide outwales and three-foot end decks will provide ability to handle big waves on Lake Michigan or white-water rapids. Two cubic feet of foam under the decks provide the safety of positive flotation. Make-believe? No; such a hull was designed and built; it performed as desired. Several AWA members are using the design.

### **Plan Ahead for Use**

When buying or building a canoe or kayak decide what you want it to do and select a design that will perform easily in that use.

A hull could be substantially narrower, rounder, and finer than the fine-

lined hull illustrated and might be tolerated in a kayak with the paddler(s) sitting low on the floor, but for a canoe the decreased capacity and stability and increased draft would not be justified for the little increase in speed; moreover it would not be acceptable for competition as a cruising class canoe. Between the roundest and finest-lined and the flattest and fullest barge, there can be infinite variations to suit any desire. Fabrication methods of some materials limit design; for example, metal hulls are made by stretching a sheet of soft metal over a wood form, drawing out the center and bilges to form half a hull and riveting the halves together. It can have only convex curves.

Any hull not made of buoyant material should have at least  $1\frac{1}{2}$  cubic feet of foam flotation for safety. If you are

building a hull do not use the dangerous doped drill-covered skeleton frame construction. A good shape and ruggedness are more important than light weight. A "V" bottom chine construction, using  $\frac{1}{4}$ " fir plywood, makes an inexpensive, rugged, simple homemade hull that is a pretty good boat.

#### Hull Materials

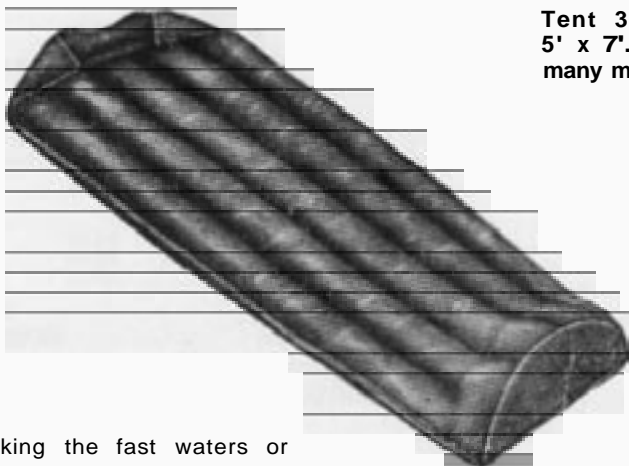
All hull materials of common use have advantages and disadvantages. The perfect material has not been developed, and none are indestructible. The most popular material for white-water hulls which take great punishment is fiberglass. No hull light enough for two men to lift can withstand the great pressure and leverages when swamped and caught against a rock or stump in fast water.

Fiberglass is currently most frequently used by both home and com-

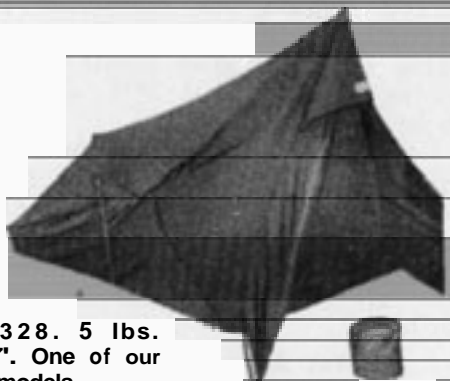
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mercial builders. It is comparable to steel-reinforced concrete: the glass fibers have great tensile strength and flexibility, while the resin is relatively rigid and brittle. The combination of these materials can produce a good ~~or~~ a poor hull.

When any material is bent, one face is put in compression, the opposite face is stressed in tension, while the center is static. The greatest deforming stress is when the hull strikes an obstruction, putting the inside surface in tension. "Bridging" the hull will tension-stress the outer surface. Therefore the surface materials should have maximum practical tensile strength.

Three forms of fiberglass are available; **mat**, a loose felt of two-inch long glass threads with little tensile strength; **cloth**, woven with twisted glass threads which has good tensile strength; and **woven roving**, a coarse burlap-like weave of untwisted parallel glass threads which has maximum tensile strength. In the hand layups used for hulls, mat will give about 20% glass content, cloth about 30%, and roving about 40% glass.

Roving is too coarse to face against the colored outer resin "gel coat" so 10 oz. cloth should be used. On the inner surface which is usually the highest stressed, roving is advantageous and also produces a roughened non-slip bottom.

#### Mat Alone Inadvisable

Some cheaw hulls use all mat which may be porous and leak if the gel coat is scraped away. Very little better is mat against the gel coat with 6 or 8 oz. cloth on the inside. Ten-ounce cloth, mat, and cloth is good. Cloth, mat, and roving produce greater tensile strength. Cloth and roving produce the greatest glass content and tensile strength per pound of hull weight, and is superior to all-cloth construction.

Home builders should be sure to use an impregnating resin, not a surfacing resin as it contains wax which floats to the surface and may cause delamination between layups. The newer isophthalic resins generally have greater impact and reverse flecional strength than the older orthophthalic resins in general use. Greater impact and flecional

strength for white-water hulls can be obtained by mixing 10% to 20% flexible resin with the regular rigid resin with some sacrifice of hull stiffness.

Hardwood gunwales provide desirable mechanical properties no metal or molded gunwale can give and simplify fastening and relocating thwarts, spray decks, etc.

Beware of freak designs such as hulls with concave bottoms, hogbacked, or with reverse rocker of keel line, whose builders always present some excuse to justify them to the uninformed buyer. The buyer is entitled to know, and should demand to be informed, of the combination of materials used. The prettiest-looking hull may be a poor construction.



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# Archimedes Helps Us Roll

By George Topol

(An Ontario Voyageurs Instruction Leaflet)

Almost anybody who has enough muscle power can learn to roll one way or another. It is nice to see all the bulging muscles when such a paddler comes up in quiet water, and his wife or darling will admire him. The question remains whether he will be able to do the same in a rapid or if an upset occurs unexpectedly near the end of a paddling day or during the race.

If a paddler does not master the basic paddling techniques and spends most of his time on practicing his rugged roll, he is only wasting his time and effort. It certainly makes little sense learning to roll to recover from upsets caused by mediocre paddling skill. If you cannot brace or do the draw stroke, forget about the roll, unless, of course, your only ambition is to impress ignorant spectators. If, however, you are seriously interested in paddling, learn the Duffek technique first because this is something which will give you true satisfaction on the river.

## Easy Does It

Rolling is an important part of our paddling course. But we want to teach you to do it with a minimum amount of effort. Not everybody has enough power to do the "Rugged Roll." Contrary to popular belief you do not have to be strong to be able to roll. If you put your head to work you will learn to roll better and with more grace than your muscular friends.

How can this be done? Simply by working with the physical laws instead of fighting them. Do you remember the Archimedes Law from your school days? It states that a body submerged in water is buoyed by a force equal to the weight of displaced water. For a paddler it means that while he is out of water he might weigh 150 pounds and this is quite a burden to lift with his hands. On the other hand while he is in water his body is practically weightless.

If you want to roll up after capsizing

you have to accomplish two different things:

1. To turn the boat the right side up.
2. To lift your body above water.

If you try to do both things at the same time it will take all your muscle power. Only the strongest can do it and it is dubious that they can rely on their roll in rough water or when they are tired. We will refer to this type of roll as a "Rugged Roll."

## Divide the Task

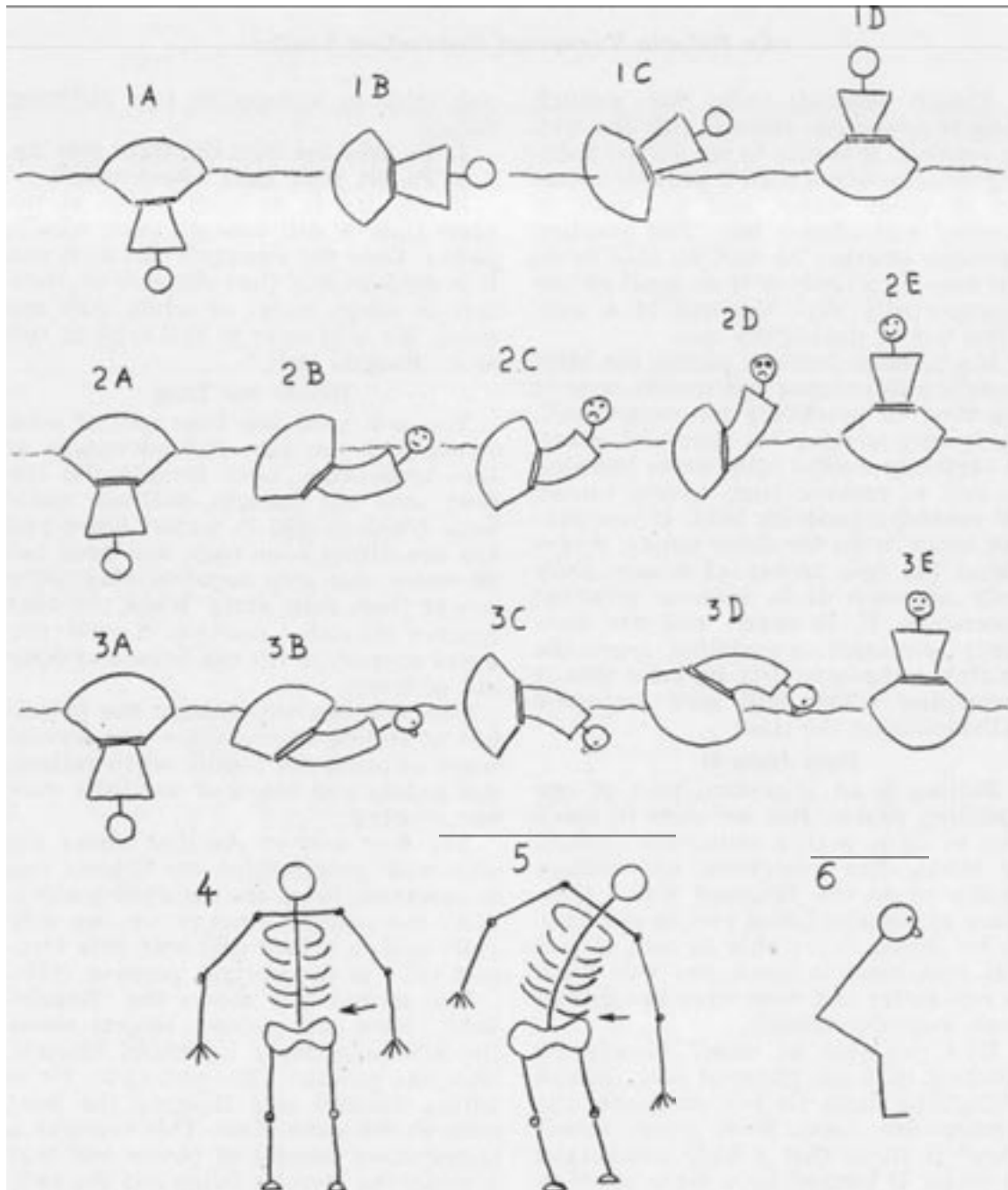
You will need less than half of your strength if you take full advantage of the Archimedes Law. Simply flip the boat into the upright position while your trunk is still in water. Since you are not lifting your body and head out of water this step requires very little power from your arms. When the boat reaches its stable position it gives you extra support to lift the head and body out of water.

The sketches will clarify the principle of rolling. Since there are several ways of using the paddle when rolling, the paddle and hands of our little man are omitted.

The first row of sketches shows the way most people think the Eskimo roll is executed. From the capsized position (1A) the paddler emerges on one side (1B) and in a nice stiff way lifts himself (1C) to the upright position (1D).

The second row shows the "Rugged Roll." Here the paddler forgets about the boat and drags it behind himself. Note the position (2C) and (2D). He is lifting himself and flipping the boat over at the same time. This requires a tremendous amount of power and that is when the muscles bulge and the paddle trembles.

The third row illustrates the easy way of rolling. This paddler is using his head by keeping it in water. The first step is bringing the body and head close to the surface (3B). After that the boat is flipped over while most of the body is kept in water (3C). When the boat



The Roll— with and without tears

gets past the critical point it will actually help to lift the paddler's body out of water.

### **Skill, Not Power**

The only trouble with the "Archimedes Roll" is that it is not as easy as it looks. True, it requires very little power, but it takes a great deal of coordination to do it properly. This is why we are giving these instructions so early. As you know your little brain works all the time with only two exceptions. It invariably stops when you are asked to make a speech or when you are upside down in the boat. The best thing then is to practice and memorize all motions you have to go through when rolling so that you can do them without thinking. This you can do in the comfort of your living room without even getting wet.

As was pointed out before, to make rolling easy you have to flip the boat over while most of your body remains in water. If you look back at sketch (3C) you will realize that this takes a considerable amount of bending of your torso. Sketch No. 4 is an unflattering picture of your bony anatomy. This skeleton, by the way, belongs to a gorgeous blonde who modeled for it. There is a relatively small space between the lowest rib and the pelvis as shown by the arrow. You can feel it with your hand. If you now bend to one side (5) the rib will start interfering with the pelvis and that will limit the extent to which you can move. You will find it impossible to reach the floor in this fashion.

However, if you turn your torso first and then bend, you can manage to touch your heel. Do not get discouraged though, by all the alarming noises in your joints! The same thing applies when you are sitting. Take a chair and try to touch the floor on the side of the chair with your hand while keeping both halves of your seating facilities in contact with the chair. Unless you turn your torso you will find it extremely hard to do.

### **Rolling in Bed**

You can get a good preliminary practice for rolls while lying on the floor or in bed. Lie down flat on your side as shown in sketch No. 6. Spread your knees apart as you would in your boat.

The imaginary line drawn between your knees corresponds to the level of the deck of your boat. You are now about in the position (3B). You just managed to get your body to the surface. The boat is still more or less cap-sized and therefore your upper (right) knee is slightly forward.

Next thing to do is to flip over the boat, first without lifting the body. Turn your trunk so that you're face down. At the same time turn your hips to get your knees up in the air. Thrust out the left knee! That will turn the boat into the right position (3D) and the rest is easy.

The whole business of rolling in bed might sound silly but it will bring results if you practice it. It is easy to acquire bad style in rolling and it is very difficult to correct it. Those of you who think that they can roll well enough should do some soul searching. Have a good look at sketch (2C) and (3C). Which is your style? The mere fact that you can come up and that you occasionally break the paddle doing it proves only your strength, but not your skill. No matter how good you are, there is always room for improvement. Whether you are a "Rugged Roller" or just a beginner, read this sheet once more and take it with you to bed!

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**RALPH FRESE**

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# Questions for the High-I.Q. Paddler

## Red Ridge College Honors Examination

(These questions were straight-facedly placed before the 1962 Red Ridge candidates; a few moments later a "mistake" was discovered, to every one's relief.)

*Answer five of the nine questions. No crib notes, please.*

1. A canoer's hat blows off as he paddles up a river. It is an old hat anyway so he continues without it. Ten minutes later he remembers that his fishing license is on the hat and he paddles back to pick it up a mile below where he lost it.

### **How fast is the river flowing?**

2. A party is paddling up the Amazon. Each day they make fifteen miles but they do not dare land at night and slip back ten miles while sleeping in the canoe.

### **How many days' rations will they use on the last thirty miles to their destination?**

3. A missionary paddles into unmaped territory knowing only that it is inhabited by two tribes and that the good natives always tell the truth while the bad ones always lie. On the twenty-fifth day he sees three natives approaching in a canoe. "Are you good or bad?" shouts the missionary. The answer of the first native is too faint to make out but as the canoe draws closer he hears the second shout. "He said he was bad." The third one says, "They are both lying."

### **Are the natives good or bad?**

4. On the twenty-sixth day the missionary reaches the fork. Just above is the village of the good natives and they have invited him to dinner. Alas, he does not know which fork. Up the other fork is the village of the bad natives and he knows they keep a pot boiling hoping a missionary will drop in for dinner. Luckily he spots a native fishing from the shore.

### **What single question should he ask to learn which fork to take?**

5. A C-2 team has decided to paddle through the Grand Canyon for a lark.

They come to grief in a remote rapid and are cast on a rock surrounded by thundering water. Miraculously, their sole possession is a bottle of Burgundy, a clear bottle of irregular shape. Having given up their trip they decide they must divide the wine.

### **How can they divide it exactly equally?**

6. One canoe of a camp trip is overturned on a frightful rapid on the Allagash and the wanigan box is smashed, strewing their entire supply of canned goods along the bottom. The boys recover many cans but the labels are washed off. Twelve of the cans look just alike but the leader knows eleven are string beans and the twelfth, being plum pudding, is a different weight from the others. He rigs up a beam balance.

### **How can he find the plum pudding can in three weighings and also know whether it is heavier or lighter than the other cans?**

7. Three identical knapsacks each contain two bags. One has two bags of flour, one has two bags of beans, and the third has a bag of flour and a bag of beans. You know all the labels have been put on the wrong knapsacks.

### **How many bags must you take out to know what is in each knapsack?**

8. Three boys on a North Woods trip played a game whenever they had been in swimming. If a boy saw a leech on one of the others he started whistling, but if he found he himself had a leech he stopped whistling. One day all three came out with leeches on their backs and all three started whistling. After a few minutes one boy stopped whistling.

### **How did he deduce that he had a leech?**

9. It is Memorial Day and you are leading a group on Pine Creek. There are 14 paddlers including seven girls. They have seven canoes and a kayak, three cars (one a convertible), and the trailer. One person didn't show up and Will still insists on paddling his kayak.

Two sent word that they would meet the group at noon and two others just announced they must get to mass on Sunday. Bill and Sue had to be separated and put with experienced sternmen, and the newlyweds had to be asked to split and paddle with novices. George objects to a girl telling him how to paddle and Jane has trouble with such a heavy bowman. They upset twice the first morning and the sugar and salt bag isn't tied in and is lost. In borrowing dry clothes they lose the keys to the trailer car, whereupon Jim realizes he left the shuttle car keys in the glove box of the trailer car. One pair is terribly slow about engaging rapids and it is dusk as they make camp. The rain continues to fall steadily and the group wonders what their leader will do since there are just seven two-man tents and there are two married couples.

**What is the name of the trip leader?**

## Dean's Cartoon



"OH NO! NOT THREE WEEKENDS IN A ROW!"



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# The Varieties of Canoe Tipover

By David Kurtz

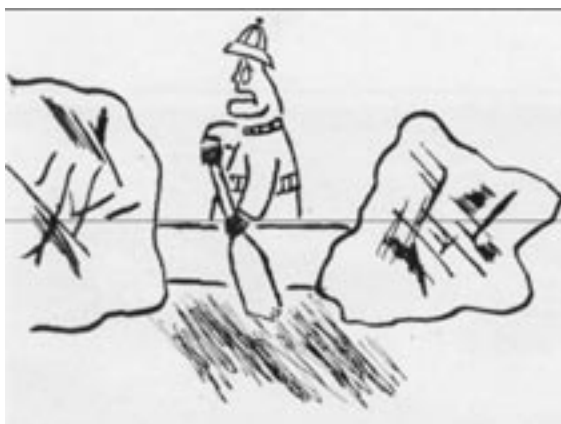
Illustrations by John Bryson

The paddler and canoe, a classic unity, find the parting of their ways much too often in a career. The upset or the swamp take their toll of human dignity and of inhuman equipment on whatever creek they are on. In searching for reasons for these errors, trip leaders and novices alike have come upon five basic types of upsets.

Two novice paddlers seeking to go from one side of the creek to the other—looking for big waves or trying to avoid them—often run into difficulties. They point their canoe to the opposite shore and promptly forget that current

canoe is stopped in the current by rocks or logs or by drawing downstream when coming out of an eddy.

The small streams in Pennsylvania, as elsewhere throughout the country, contain obstacles other than rocks. Trees and especially branches grow along the shore, lending the stream nature's own beauty. The dainty tips of the branches, however, prove as mighty as logs. They both will stop the canoe, turn it broadside, and allow the rushing



exists. They are at once in the **Classic Braadside Position**, which they will never forget. For in the next instant, the molecules of water push the canoe onto a large rock. An upset is imminent. Paddlers can avoid this position by learning the direction of currents and by keeping the canoe parallel to them as much as possible.

As often as not, if paddlers are caught in the above position they further enhance their chances of upset by the **Classic Upstream Lean**. This is also the case in coming out of eddies by a Dufek technique. The bowman, often the date or wife of the sternman, loves to look upstream at the dancing water. The lean is upstream and the canoe turns over. This can be avoided by leaning downstream whenever the



current to flip it over. The **Classic Branch Entanglement!** To avoid this troubled feeling, and to prevent the possible loss of canoe, one should stay clear of all kinds of branches and logs. Keep to the inside of sharp bends; back-ferry if necessary.

The thrill of running heavy water in an open canoe is comparable to driving through a three-foot snow drift in an open car. Water, water, everywhere . . . and most of it lands in the canoe. It's good for taking a bath, but it also leads to **The Classic Swamp**. Paddlers



can avoid this misfortune by decking their boat.

The final type of upset is less easily defined. It is found on all streams of all difficulties. It happens to the novice as well as the expert. It's like sorting potatoes into large and small sizes. Decisions, decisions. Should one paddle to the right or left? Is the big chute the one to use or can the little one be successfully run? Often as not it turns to



be the **Classic Indecision** Leading to the **Classic Crash**. My only suggestion for improvement is to take up skiing!

**TYNE  
A.K. 62**



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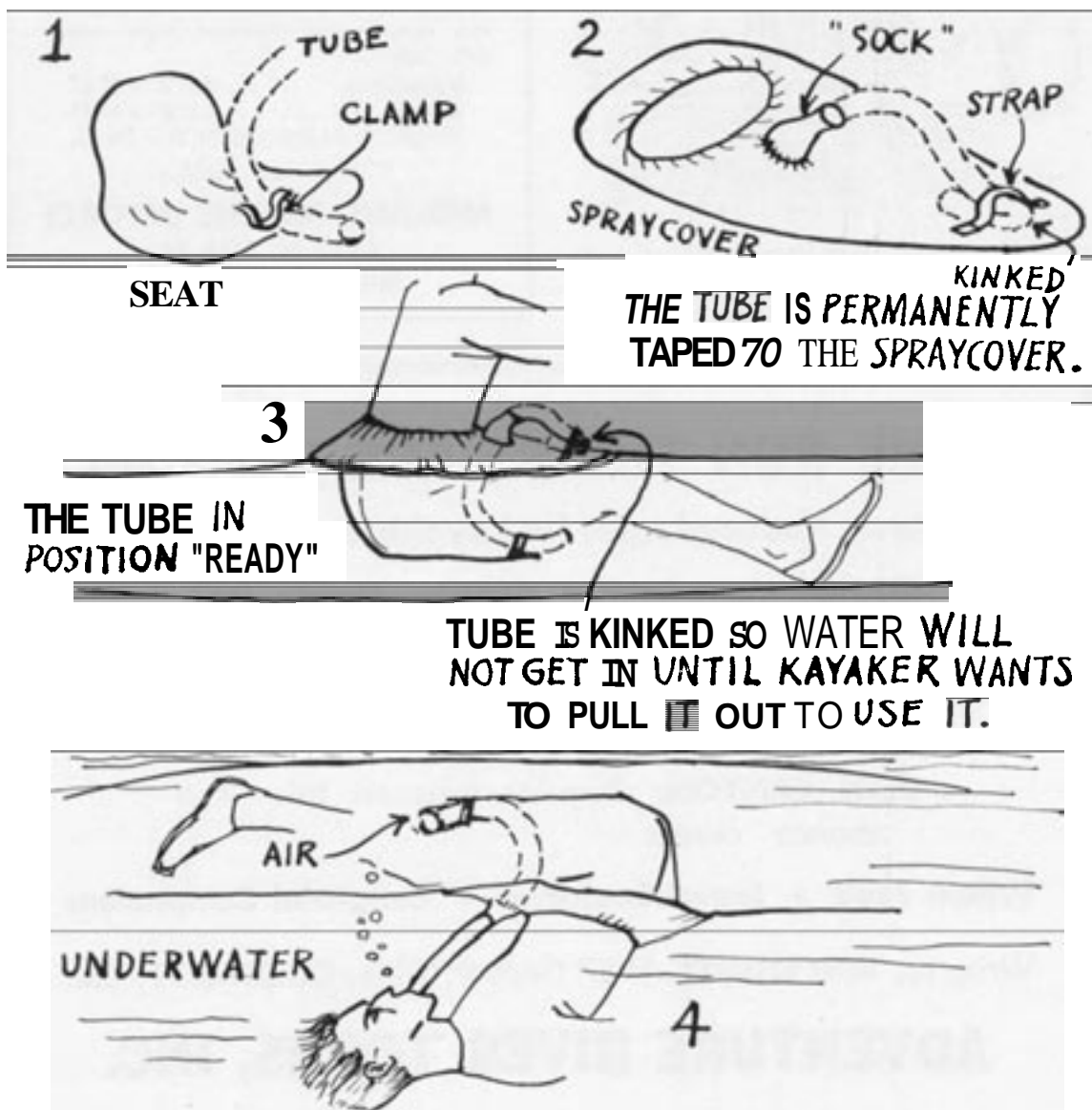
# An Eveready Snorkel for Kayak Spills

By George Siposs

In a slalom race, when the competitor uses a lot of oxygen, he might find himself out of breath, and thus unable to roll up, if he capsizes unexpectedly. The tube described in this article might be of help and perhaps mean the difference between a swim or victory.

I first got the idea of using some

sort of device to supply fresh air, when, during the Peterboro slalom race, I found myself upside-down below the 14-ft. chute. The water was extremely turbulent and full of bubbles. Before the race we were studying this spot and reasoned that if one capsized at this spot, he just had to wait until



the water carried him down into quiet waters (approx. 40-50 feet) where the paddle could get a more solid bite.

After capsizing I waited until the burbling and roaring noise subsided, indicating that I was away from the main turbulence. This seemed like an eternity but they tell me that I was upside down in the boat for about ten seconds. When my first attempt to roll up failed I had to get out of the boat for a breath of air. With the Peterboro tube I believe I could have lasted a few more seconds and succeeded.

The construction is simple. Fasten a clamp just in front of you on the seat of the boat. Secure the end of a suitable length of 1 inch (outside diameter) SOFT rubber tubing (1/8-inch wall thickness) in this clamp. Lead the tube out through the spraycover which is modified slightly with a "sock." This sock is about 4 inches long and is sewn into the spraycover close to your waist. Use waterproof adhesive tape to prevent water seepage.

Sew a canvas strap to the top of the spraycover. The outer end of the tube is kinked and pushed under this strap. The kink prevents water from getting into the tube.

The reason for fastening the tube on the seat is this: it must be off the floor of the boat so that it does not fill up with water from the boat.

When you capsize, hang onto the paddle with one hand and with the other, pull the tube out from under the strap. Keep its end pinched by finger pressure. Put it in your mouth, blow into it to get rid of any accumulated water, then take a deep breath . . . you are saved. The boat has enough air in it to keep you alive for a long time. It might not be the mountain-fresh air, but boy, will it ever come in handy!

For training in Eskimo-rolling the tube is an excellent aid. You may want to put it into your mouth before you roll down. Several rolls can be attempted this way. Since you have to exert force against the water pressure when inhaling, it is better to lean forward in the boat so as to keep as close to the water surface as possible. Even-

tually this will become a reflex. Some of you may want to equip the outer end of the tube with a check valve so water will not get in, making it unnecessary to clear it before inhaling. The tube must be of fairly soft material with a reasonable thickness; also avoid sharp bends to prevent kinking.



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*Out of the transcendental crud*

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*Can. always brace my paddle on the mud.*

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# Test Your Slalom Skill in Still Water

By George Siposs

Did you ever want to test your boating ability or the improvements that you made? Did you ever want to test a new boat design, paddle or technique? From England comes the answer to all these: a fast and reliable way of testing performance in kayak or canoe.

Since water conditions change from day to day on rivers, and since it is hard to find comparable rapids, members of canoe clubs in Great Britain have developed a method whereby chance is minimized and all conditions can be duplicated any time, any place. We call it the "English" Gate Test. This test consists of going through **one** slalom gate several times backwards and forwards in a predetermined pattern. The gate is exactly **36** inches wide and is placed in perfectly still water. The poles should be about two inches above the water so that waves cannot move it.

The time is taken when the bow enters the gate for the first time and the stopwatch is stopped "nine gates later" as the bow leaves the gate, the ninth gate being a reverse gate. The run must be clean. If any of the poles is touched by the boat, paddle or body that run is cancelled. Thus, one only runs against time; no judging is required. Only clean runs count of course.

It is therefore possible to compare results strictly on the basis of time spent negotiating the course. In the process of practicing for this test, one inevitably acquires skill necessary for perfect control of the boat.

For experts the run includes Eskimo Rolls. There are four rolls, always towards the gate, i.e., rolls are done when one is outside the gate. Beginners do not have to roll.

We are awaiting the results of "English Gate" tests with great interest. Pretty soon we shall be able to publish new records from both Continents.

As this article goes to press we received news from England that Iain Carmichael, champion kayaker, did the test in **72** seconds.

## The Test Sequence

**Phase 1.** A forward gate, turn right, forward gate, turn left, another forward gate. See diagram.

**Phase 2.** You should now reverse just past one pole and to the right of the gate. Do a straight gate through again, then reverse past and to the left of the gate. Go through the gate again forward.

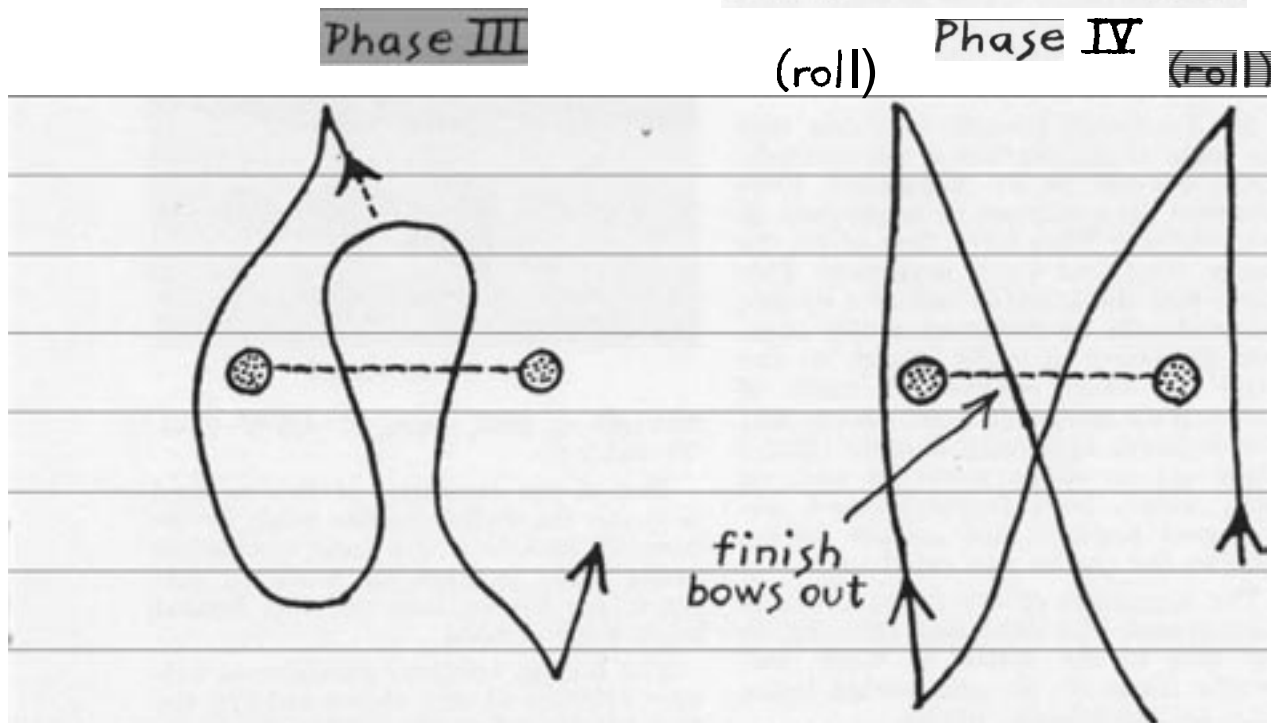
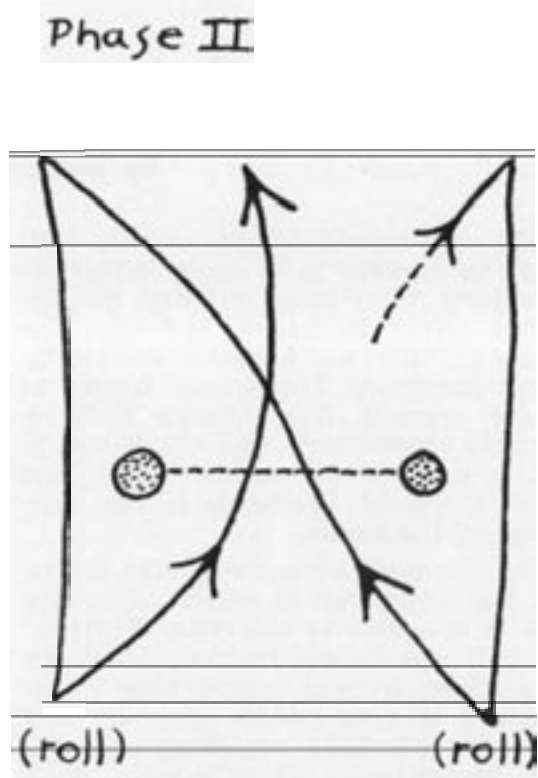
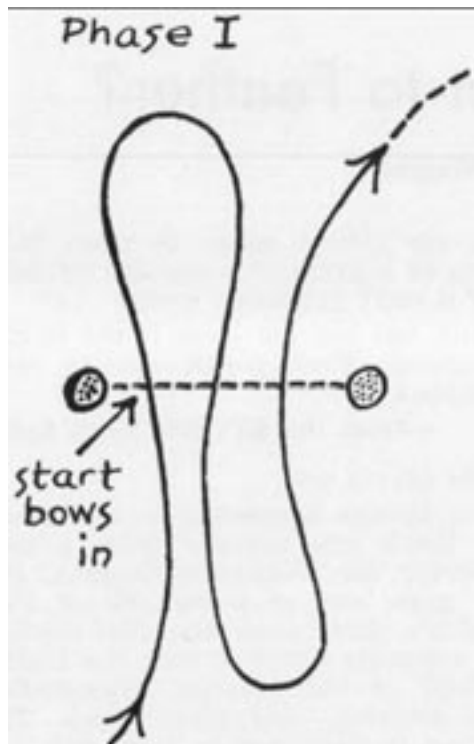
**Phase 3.** Once again reverse, paddle past and to the left of the gate, turning towards your right and back into the gate. Just past the gate, still going backwards, turn to your left and reverse through the gate again.

**Phase 4.** Now paddle forward past and to the right of the gate, reverse back through the gate; now paddle forward on the left (outside) of the gate and finish with a reverse gate. For the advanced (expert) class perform Eskimo rolls towards the gate at the points marked.

**Remember:** If you touch a pole you are disqualified and you must start all over again. Try this test in different boats, using leans, without leans, etc.

Let us hear from you. Who'll be the first to do this in under one minute?

This test in England is called the "Wiggle" test. In search of a more glamorous name and in honour of its inventors we call it the "English" gate test. Members of the Ontario Voyageurs Kayak Club carry a collapsible version of the gate. It floats so that no ropes are required, and it is anchored so it does not move about. Being collapsible, it is carried to our trips and if there is no white water nearby, up goes the "English" gate for some practice.



The **arrowed** sections represent **forward** paddling in the direction of the arrow.

The English Gate Test

# To Feather or Not to Feather?

**By Barbara E. Wright**

My unfeathered friends usually consider themselves to be quite independent types. They point out that the Eskimos never feathered, and that the whole problem was probably created by some perverted Frenchman trying to amuse himself. The human body is roughly symmetrical, and was meant to use a symmetrical paddle. They feel there is enough challenge in the very shape of the kayak.

For the more advanced boater, learning the screw roll is easier when one side is the same as the other. Furthermore, if you are suddenly upside down in a strong current approaching a waterfall with your paddle on your "bad side" (God forbid), switching unfeathered blades under water to your "good side" offers no resistance. Of course, if you have no "bad side" — but those guys are all in Europe.

My feathered friends, realizing that the logic of the feather is not immediately obvious to all beginners, have dreamed up a number of arguments in their defense. They have, first of all, the heavy wind and water argument. This holds that the inactive end of a double blade should be rendered really inactive by being at right angles to the wind or some unexpected mass of water. It's a good argument, except that I have never had much trouble (that I know of) on either score. In fact, on open water, both feathered and unfeathered paddlers are usually killing time so the canoes can catch up.

The argument of the ready brace is quite sound. The dead end, showing its flat side to the water, is more constantly ready for an unexpected brace than an unfeathered blade.

Then there is the controversial Whitney's Rapport argument. This holds that you must constantly move a feathered blade trying to find out where the hell the water is, so that whatever happens

you are almost ready to react to it. Keep in a precarious enough situation and it can't get much worse.

And last but not least is the Bruhin argument. Paul feathers, so why shouldn't we?

**—from the KCCNY News Letter**

## *The Editor's reply:*

It's always dangerous to let oneself get lured into arguing with a lady. However, the "Whitney's Rapport" theory grew out of a remark of Paul Bruhin's, three years ago, that feathering naturally fitted in with the Duffek method of high braces, drawstrokes, bow steering, and pivot turns. This method is explained in some detail in an article by Paul and the Editor in the



**Paul Bruhin feathers**

November, 1960, issue of AWW (Vol. VI, No. 3).

One of the essentials of this method is to use the double paddle much as the canoeist uses the single—and that means being ready to plant the blade far forward, far to the side, or well behind one's body at need.

The human anatomy produces a natural rotation of any object held in the two hands and swung across the body. A blade inserted far forward, without wrist correction, rotates into a semi-drawing position; at the end of the stroke, the uncorrected blade has turned to a back-bracing position. This tend-

ency is magnified by the high shaft angles that go with Duffek stroking.

This means that, to get a consistent and directed stroke, much wrist correction is going to be necessary, feathered or unfeathered. Try this with a paddle in your living room—or, as George Topol suggests on another page, in bed.

The feathered paddle, however, produces a rotation of the wrists that easily and naturally compensates for the "pan-tograph" rotation produced by the arm-shoulder anatomy. In particular, it avoids that clumsy blocked-wrist position at the beginning of the stroke with the unfeathered blade, familiar to all of us who began paddling in doubles.

The price of feathering, of course, is to learn wrist flexibility and the habit of rotating the shaft in the non-fixed fist. A paddler who has acquired this thoroughly gives the impression of having nerves in his blades, able to feel their attitude in the water. To such as Roger Paris and Paul, no blade angle or paddle shaft attitude is ever accidental — each is conscious and artistic.

Such rapport is the despair of the rest of us. Whatever else it is, it isn't Whitney's.

P.S. — That theory of the "perverted Frenchman" . . . just what is that, and how do you tell?

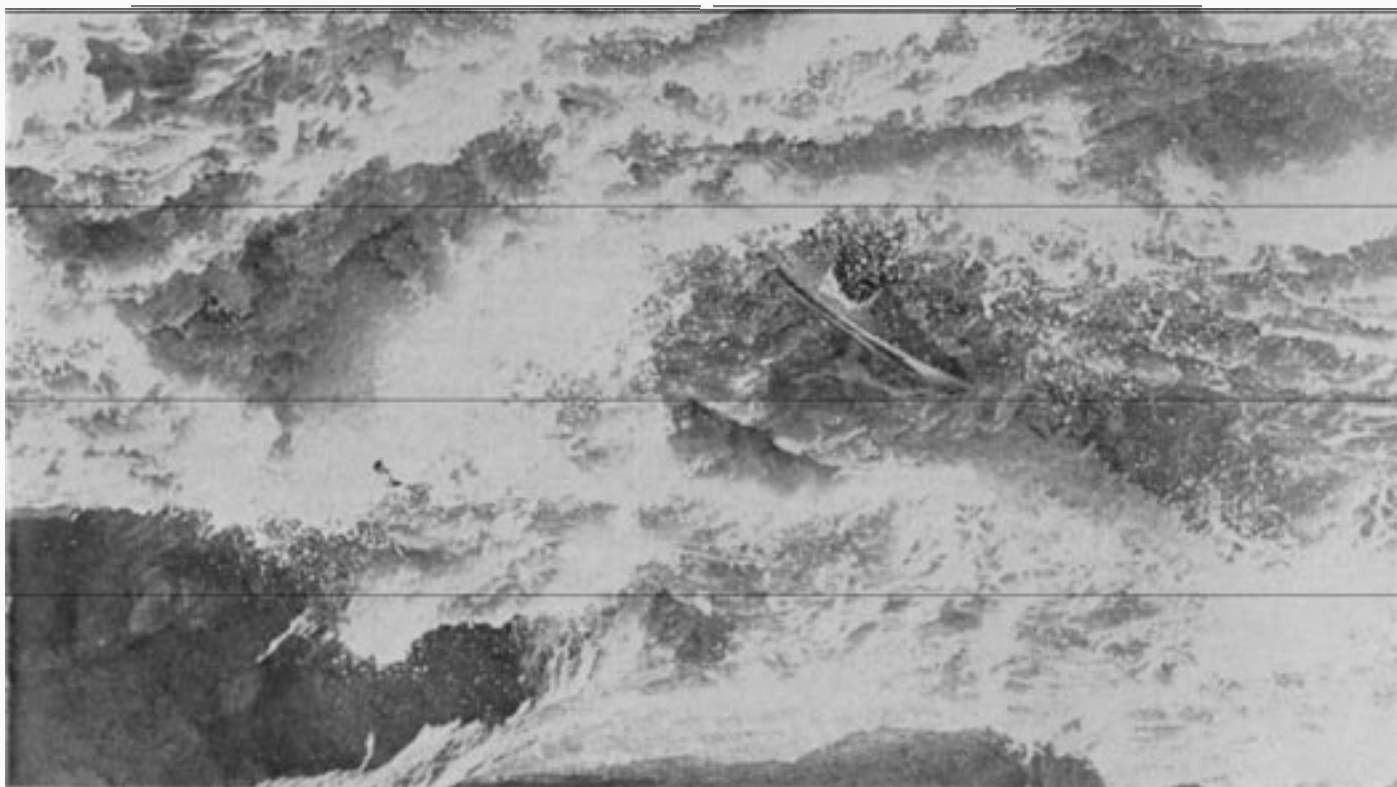


### Sierra Club Training Film

"Beginners' White Water," an 8-mm., 26-minute color film, edited in 1962, is available for other clubs at a \$2.00 service charge plus insured postage both ways.

This introduction to white-water kayaking on club trips shows Class I to 11-plus rivers (American, Russian, Eel) in California. Sequences depict playing in riffles, nature, rafts, personalities, a 50-boat group, boat types, antics, youngsters boating, tipovers, rock-garden runs, camping.

**Order from Sierra Club River Touring Film Library, c/o Charles E. Smith, 1760 Walnut St., Apt. 203, Berkeley 9, California.**



Did he make it? Yes, Bob Waind fought his way back up in Cottonwood

# Safety as We See It

By John Bombay  
Safety Chairman

The feeling and understanding of safety is a very diverse one.

According to the dictionary, "safety" means to be devoid of danger or harm, but in life no one is so. One can however **feel** perfectly safe when one is secure, thus free from fear, care or anxiety, easy in mind. Thus one can be secure even when actually exposed to dangers. How then can we be secure when running rapids? I do not think that we fear our rivers but I do think that some of us have a good amount of anxiety; we call it sometimes "chicken" or I have heard it called "butterflies in the stomach."

When we drive a car on the highway, we may feel secure but another driver might wreck this feeling any time by crashing into us. Our security almost always depends on others, in our normal way of life. But if we select the river for our recreation, our security depends mostly on us. No other person will crash into us; it is us and only us that will crash into a rock. I do not believe those jokers that claim that "that rock moved just in front of me." Thus since safety is only relative, security is the only item that we really need on our trips.

We can only be secure if we are free of anxiety and get rid of our "chicken." It is the slow "chicken" driver on the road that easily will get involved in accidents, since people will try to pass him on that curvy road. It is the "chicken" boater that is bound to crash into rocks because he freezes and makes the wrong move, or no move at all, and is "moved" but good! He freezes because he either did not know or forgot the skill required to run rapids, or he blanked out because of anxiety.

Why this anxiety? A person who knows how to swim should not worry about falling out of his boat; a person who dares to poke his head under water to find his lost swim trunks after a dive should not be afraid of tipping over. Why then do some of us panic in

a tip-over and trample their boats to pieces although they know they would naturally fall out anyway? Just anxiety, insecurity.

Hillary felt perfectly secure dangling on Mt. Everest at 15,000 ft. because he knew he had the skill and equipment to handle himself. If we only would realize that we have the skill and equipment to manage ourselves in our predicament in the rapids, our anxiety would cease. If we only use that draw stroke, if we only use that high or low brace, if we only would use our know-how, then we would not even know what "butterflies" or "chicken" were!

Why thus be a "chicken?" We can be secure by mastering the proper strokes, by applying them at the proper time, by having good equipment — and above all, by being honest with ourselves, because if we are chicken, we know and should admit that we still have something to learn, either of technique or self-control.

If for some reason you wish to pass up a rapid, why not get your camera out, take pictures and send them to P.W. for our magazine, and we forgive you for being "chicken" but bless you for your generosity in abstaining.

How much more fun would your trip be if you would not feel that butterfly flutter under your belly-button when you hear the roar of that approaching rapid? Well, I have known many butterflies myself, but now that I know and realize I have largely mastered the necessary skills, I am just enjoying that roar. It took me 5 years though. Sad, isn't it!

Let's eat that "chicken," if not those "butterflies." Let's acquire the needed skills. Contact a good boater for instructions or buy a good book. Let's become skilled, friends, to enjoy our outing more — and be safer.

Remember, the river is the safest place on earth; there are no other fools to run into you: It is just you and that river in that beautiful valley.

# SECRETARY'S SOAP BOX

By George G. Siposs,  
Secretary

The Y.M.C.A. in Columbus, Ohio, organized a "Fun Weekend" May 18-20 of this year. Among such items on the program as cycling, hiking, rock climbing and movie shows, several instructional classes were held for canoeing. This seems to be the trend across the country. Instead of haphazard canoeing more and more organizations are putting canoe instruction on their agenda.

We would like to see all of our affiliate clubs volunteer their services to similar ventures to ensure that the latest techniques are taught in the proper manner. What could be more ideal than cruising canoeists or slalom men instructing young people in the fundamentals of our sport? We do need young blood in our midst, but we can only expect "customers" to return if they acquire the proper skills right at the beginning.

Harold Kiehm, our Membership Chairman, and the Prairie Club in Chicago are organizing a "Canoeists Vacation Camp" on Lake Tomahawk in Wisconsin, Aug. 10 to Sept. 1. This is about the first venture on large scale that I know of to provide canoeists and their families with facilities and the conveniences of a stationary camp.

\* \* \*

The voice of British white-water and slalom enthusiasts, "White Water" magazine, is arriving in increasing numbers to our Continent. It provides information about the latest techniques and equipment and can be considered our link with white-water sport in Europe. Anyone interested in subscribing to the magazine should contact Peter Reilly, 3101 34th St. N.W., Washington 8, D.C.

■ ■ ■

It is interesting to note (perhaps nostalgic is the word) that the largest city in Canada, Montreal, has no white-

water or cruising club. The fabulous Laurentians are full of nice rivers and lakes and perhaps many of our readers have wondered how to get more information about water conditions, campsites, etc. Frank Kunz, 2166 St. Luc, Montreal 25, Quebec, Canada, has promised to look after any inquiries that may be sent to him from our AWA members.

\* \* \*

I would like to take this opportunity to welcome three new affiliate clubs to AWA: A.Y.H. Pittsburgh Council; Ratas Del Rio, in Albuquerque, New Mexico; and the New York State Oneonta Outing Club, in Oneonta, N. Y. The number of our affiliates has practically doubled in the past two years. Through the various working committees the clubs are keeping in touch with each other. The problems facing each club are different and the solutions to these problems are different and characteristic to each region. Most clubs publish a newsletter fairly regularly and/or a trip schedule.

Any AWA member contemplating a trip to a distant part of the country is more than welcome to write to the clubs for information about lakes and rivers and coming trips in that particular area. Nothing can be more enjoyable and rewarding than to meet boaters hundreds or even thousands of miles away from home. Yours truly has experienced this many a time from New York to Chicago to Denver to Vancouver. The topic of conversation is no problem; our language is the same. Therein lies the great advantage of our organization: anywhere we go, we find friends through AWA. We are the most travel-minded people in the world. So I suggest to you, before you start on a trip, take your AWA Membership Roster with you.

# RACING REPORT



**Claud Burk Winning the National Slalom Championship**

— Photo by Art Kidder

The new National Slalom Kayak champion is Claud Burk, a 17-year-old just graduating from high school in Salida, Colo. He won the title on the powerful, pulsing North Fork of the Feather River near Caribou, in a sensational finish that saw Eric Frazee, second place winner, beat Claud's first-heat time. Claud amply trumped his ace with a **328.25** score. Third was Bill Prime, KCCNY, who proved that the East wasn't effete, particularly when Bruhin-trained.

The new National Downriver champion is ever-reliable Danny Makris of Salida, who churned down the Feather's formidable six miles of almost continual rapids for a victory that confirmed his perennial fine performances on the Arkansas. Now nobody can say that the Salida boys are geared for only one river.

Second in the Downriver was Bennie Campton of Salida; third was Ron Bohlander of Greeley, Colo. Claud Burk

was eliminated when his boat took a bad leak.

The new ladies' champion in the K-1 slalom is Elizabeth Wheelwright of Seattle, who was the only feminine entrant to finish. Both her game competitors, Kay Harvest and Candace McDonnell, tipped in the pulsing haystacks.

The course was set by Roger Paris, who could not be present—he was grooming Jackie, his wife, for future World Championships in a European tour.

All competitors admired the fiercely challenging water, and it is probable that some white-water race or other will be held on the course annually in the future—or until the local power company manages to get the water into a steel pipe.

Your Editor's judgment is that Claud Burk can become the first native-born American to give the Europeans a serious challenge.

The race received very adequate pub-



Rudi Gruenberg in Cottonwood

— Photo by Art Kidder

licity in the California newspapers, and Elizabeth Wheelwright's picture was printed by our bumbling contemporary, **Sports Illustrated** — which nonetheless failed to record the results, even in ruby type.

Every foldboater entered gained a place in the scoring.

The one feature that marred the fine and sportsmanlike weekend was the barring of Bryce Whitmore from competition — see "From Your Editor," Page 30.

The results:

#### **NATIONAL KAYAK SLALOM CHAMPIONSHIPS**

**North Fork, Feather River**

**June 30-July 1, 1962**

##### **K-1**

1. .... Claud Burk ..... 328.25
2. .... Eric Frazee ..... 369.5
3. .... William Prime ..... 491.8

##### **K-1 W**

1. .... Elizabeth Wheelwright 1029.2

##### **K-1 Team**

1. .... Burk-Campton-Frazee  
(only ones to finish)

#### **NATIONAL KAYAK DOWNRIVER CHAMPIONSHIPS**

**July 1, 1962**

1. .... Danny Makris ..... 25.06
2. .... Bennie Campton ..... 26.15
3. .... Ron Bohlender ..... 26.49

#### **ARKANSAS RIVER RACE**

**and**

#### **INTERNATIONAL SLALOM**

**Salida, Colo.**

Europeans took the top places again in the famed Arkansas River Race and the International Slalom. Kurt Preslmair of Steyr, Austria, carried off the overall slalom title in a **borrowed** Klepper **T-67** foldboat, with a time ten seconds better than that of his nearest competitor, Rudy Gruenberg of Munich, Germany — who won the **R-1** title.

Top American was the rising star, Claud Burk (**R-1**) of Salida, with a third-place overall time only 9 seconds behind Gruenberg; Ron Bohlender (**R-1**) and Eric Frazee (**F-1**) followed. Last year's U.S. Slalom champ, Dave Morrissey, was barely back in the water again after a bad skiing accident, but took fifth in **R-1**.

Winner overall in the downriver race

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### RACE REPORTS

WEST RIVER, VERMONT . . . In the White Water Slalom (Eastern Championships) on the West River, Vt. there were more Klepper Kayaks participating than all other makes combined . . . Klepper Kayaks — 15 runs . . . Total, other makes — 14 runs.

SALIDA, COLORADO . . . The International downriver race on the Arkansas River — regarded as the "world's most **difficult** White Water race" — was won with a Klepper Quirl R . . . The International Slalom race and the International Slalom Team race at Salida, Colo., were also won by Klepper Quirl and Klepper T-67.

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was Gruenberg with a 2:12:32.2 time; Preslmair was second in 2:15:30. Big surprise in the race was the performance of Al Zob of Canada, who was racing as a novice as lately as last summer. He took third in a foldboat; close behind him were the top Americans, Danny Makris and Claud Burk.

Results:

# **International Slalom**

**June 8-9**

## **F-1**

1. ....	Kurt Preslmair .....	227.0
2. ....	Eric Frazee .....	298.5
3. ....	Ulrich Martins .....	360.2

## **R-1**

1. ....	Rudi Gruenberg .....	237.6
2. ....	Claud Burk .....	243.6
3. ....	Ron Bohlender .....	279.5

## **K-1 Novice**

1. ....	Leo Martin .....	736.0
2. ....	Charles Burk .....	806
3. ....	Chuck Campton .....	851

## **C-2**

1. ....	Larry and Ricky Zuk ..	1189.5
---------	------------------------	--------

## **Team Race**

1. ....	Gruenberg, Martins, Preslmair .....	424.3
2. ....	B. Campton, Frazee, Burk .....	588.5
3. ....	Morrissey, Young Bohlender .....	667.4

# **Arkansas River Race**

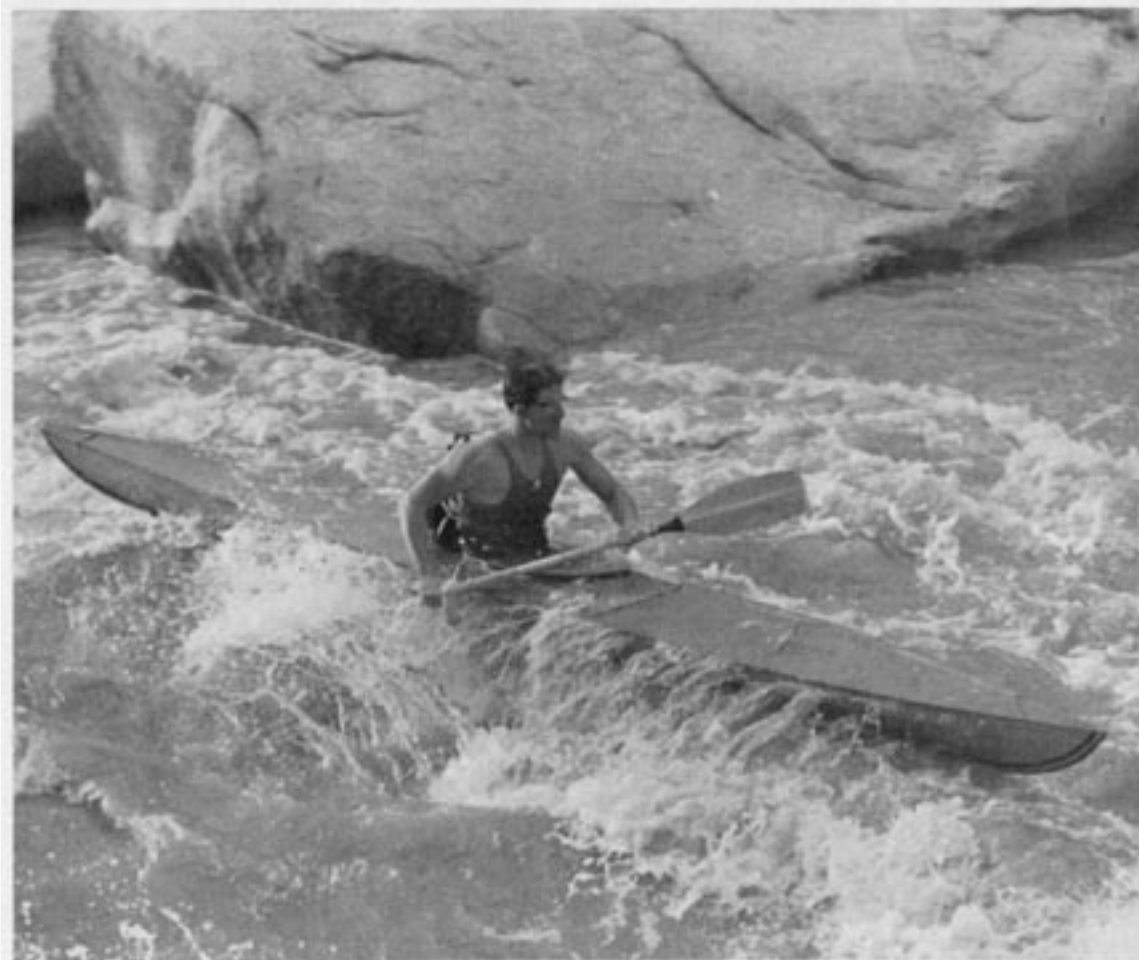
**June 10**

## **R-1**

1. ....	Gruenberg .....	2:12:32.2
2. ....	C. Burk .....	2:19:42.5
3. ....	Ted Young .....	2:21:11.3

## **F-1**

1. ....	Preslmair .....	2:15:30.0
2. ....	Al Zob .....	2:18:12.0
3. ....	Danny Makris .....	2:19:28.7



Danny Makris in Cottonwood, Arkansas River Race — Photo by Art Kidder

# BOOK REVIEWS

**Canoeing White Water** in Northern Virginia, Northeastern West Virginia, and the Great Smoky Mountain Area of North Carolina. By Randy Carter; 169 mimeographed pages; for sale by the author at Shirley Ave., Warrenton, Va.; \$3.00 postpaid.

Randy Carter's guide to the streams of the mid-Appalachians appears in a third, revised edition; it is a thoroughly good job, the product in part of collaboration with our good friend John Berry. It should be in the hands of every paddler who expects to visit the area, and many of those who just like to read and imagine. Since this was the area where I first learned of the delights of white water, the book has a special value for me.

Randy uses the International system for difficulty rating; and yet happily does **not** let it become a kind of ritual incantation. Most useful of all, he ties the ratings in with river levels and—one of the finest acts of white-water citizenship we know of—Randy and his colleagues of the Canoe Cruisers have set up a system by which a paddler can know, before he leaves home, what level to expect. Scales have been painted at places where riverside observers can easily read them, and these observers are listed in the guide. All the reimbursement the observer gets is 28c in stamps, to be mailed by his "client" whether he makes the run or not, but of course the paddler is urged to buy his groceries and gasoline, when possible, from these fine cooperators. This is a system that should be more widely installed in other parts of the country.

Since many of the rivers covered are also listed by Walter Burmeister in his "White-Water Boating," it is interesting to compare the two guides. Randy's is primarily for canoeists, while Walter is a foldboater. Their descriptions generally agree, but don't duplicate to the point where one guide

cancels out the need for the other. If I were preparing to run the Grand Canyon of the Cheat, I'd study them both.

—P.D.W.

**Exploring the Little Rivers of New Jersey**, by James and Margaret Cawley. Rutgers University Press, 1961. \$4.50.

For canoeists living near these rivers this book will be a valuable guide to the quiet side of our sport. It was first published in 1942, and has been updated and revised with a new chapter on the Delaware and Raritan Canal. The authors have had years of pleasure on and beside these streams, following them by canoe where possible, and on foot or by car where they become un-navigable.

This book is not for the white-water enthusiast, although many canoeists welcome the change of pace from the Spring high-water mania to the relaxed pace of summer.

The value of the book lies in rambling and frequently nostalgic suggestions. The authors know the character of their rivers. They know where the laurel is thick in Spring and where the Fall color is good. In their words, "But the important thing is to get to know the rivers. . . ."

J o h n Muhlenberg

**CAMPGROUND ATLAS of the United States and Canada.** By James A. Bier and Henry Raup. Alpine Geographical Press, Champaign, Ill. 182 pp. \$3.00

This is an extremely useful guide to developed campgrounds on public and private lands. It is primarily for the motorist, rather than the outdoorsman. The fact that it covers the entire country and Canada is both an advantage and a disadvantage: many persons will want to supplement it with regional guides where these are available, for the sake of greater detail.

Judging from areas known to me, the data is accurate and complete.

—P.D.W.

## How the Maoris Run Their "Hurdle Slalom"

*A possible way of making slalom yet more interesting by requiring flying-fish leaps through hurdle gates is hinted at in a description of the Maori obstacle race, sent along by our friend, Dr. Homer Dodge.*

*A photograph of this race appears in the April, 1962, National Geographic. The description below was published in "Sports of the World" in 1913. Yet the race has changed so little in 49 years that it could be the caption for the picture.*

Every year on the Waikato River, in the North Island (of New Zealand), a tremendous gathering of Maoris comes together from all parts of New Zealand to the Nagaruawahia Regatta, and it is here that the Maoris show their marvelous skill as boatmen. Apart from the ordinary racing in the long dug-out war canoes, manned with thirty, forty, and fifty paddlers, which skim through the water like electric launches, there is the wonderful obstacle race, a sight which can be seen nowhere else. For this race only small canoes are entered, and they are manipulated by either two men or two women, one sitting in the bow, the other well back over the stern.

The course is all cleared, and into the bed of this wide river long thin poles are driven at a distance of between six and ten feet apart. From these are hung other poles parallel to the water, and about a foot to eighteen inches above it. Several of these hurdles are placed along the course, and at the word the competitors start off for their race. They dash along in their light craft, paddling so quickly that it is hard to discern their movements until the obstacle is reached.

Then the foremost goes through some extraordinary performance, and the nose of the boat shoots out of the water onto the hurdle, amid cheering of thousands. The impetus gained by the high speed at which they have been travelling carries it well over, and then, as if by instinct, the rower in the stern leaps lightly along as the boat moves until its center is on the hurdle. Then, with an extra leap, fresh way

is given to it, and the canoe shoots over the bar and splashes into the water below. The rowers in another moment are back in their places paddling away for dear life and the next jump.

Such is the result as it should be, but in five cases out of nine, by the slightest miscalculation, the boat misses its mark, either by getting under the pole and sweeping both its occupants into the river, or, more comical still, by getting stuck on the hurdle and turning over. The Maoris, however, are as at home in the water as on land, and in a few minutes they are both splashing into their canoe again and hurrying off to try their luck at the next hurdle.

The correct judgment and particular skill required for this unique sport have been taught the young natives ever since they were able to handle a paddle, for the peculiarities of the New Zealand rivers, with their many obstructions in the way of driftwood and trees, which have a knack of growing in the center and just showing up above the water, have necessitated some such method as this for overcoming obstacles.

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# FROM YOUR EDITOR

## The ACA Issue Again

The ACA issue will not go to sleep quietly and leave us all to enjoy our slalom. The morning of the National Kayak Championships, on the bank of the North Fork of the Feather River, the visiting ACA Commodore, Ted Jacobs, approached Bryce Whitmore and warned him not only that he was likely to be ruled a professional but that his participation might contaminate other contestants.

Bryce being the Sierra Club's main star, who had previously beaten many of the day's competitors, this was quite a blow. The cause of the complaint? Bryce now spends his summers as a professional river guide, in inflated neoprene rafts, propelled by oars or outboard motors. As a matter of fact he had a raft and was offering rides down the Feather, that very weekend, to passersby who wanted to taste vicarious white water.

Race officials hastily looked up the ACA rules, which say a man may not make money from activities "closely associated" to canoeing.\* Well, is rowing a big black blimp down rivers "closely associated" with paddling a kayak? The physical actions are diametrically opposite; so is the approach in white water. Obviously a line must be drawn somewhere — no doubt a Maine or Nova Scotia guide, who used a canoe and paddled for hire, would have to be excluded from amateur races. But a raft? We thought not. We urged Bryce to race and to let the matter go up on protest to the ACA hierarchy.

### Bryce's Decision

Commodore Jacobs said, however, that a decision had already been rendered on this point, in the case of Les Jones, the well-known Utah riverman; that was a precedent that would damn Bryce if he insisted on challenging it. And here starkly appeared the most unfortunate aspect of these amateur rules: Bryce decided not to challenge, lest the race itself be contaminated and lest he

court a ruling that — as everyone who knows the ACA was aware — would be irrevocable. For the rules say: "3. Anyone who is declared a professional canoeist may not become an amateur

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### Late Bulletin

**Just at press time we learned that Ted Jacobs has written an exceptionally gracious apology to Bryce Whitmore stating that the ACA has decided river guides will not be considered professionals unless they accept money for competing. More details on this in later issues.**

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canoeist again." As Clyde Jones and Bob Ehrman have discovered, this rule is strictly interpreted: nobody gets back from Hades.

The River Touring Section of the Sierra Club is passing a protest up the line. Many ACA members and officials have given us their informal opinion that the rules do not make a pro of a man who professionally rows a craft as different from a kayak or canoe as is the usual inflated pontoon or assault raft. Yet, if not there, where will you draw the line? What about a Mackenzie River boat? What about a canoe if it is propelled by oars — as Les Jones likes to do? And so on.

One more possibility is to extend the exemption that is, we understand, given to summer camp counselors who teach canoeing in the course of their duties. That exemption is obviously motivated by the wish to see canoeing well and safely taught, by qualified and dedicated people. Why should not the same considerations govern those who work for Don Hatch and Georgie White in summer or Easter vacations only?

### Real Basis of the Rules

But for us, this is still unsatisfactory. The thing to do, surely, is to return to the purpose of the amateur rules and the amateur concept. The chief purpose, as we see it, is to make sure that **no-**

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\*AWW, November, 1961 (Vol. VII, No. 3).

body competes for pay, or for a money prize. The reason for this is the obvious one that professionalism spoils true sport — and I'm sure no one would disagree that this does happen. Rowing and sculling in this country were once highly professionalized; sordid consequences included the gambling evil and the pseudonymous tramp athlete who competes under many names; the thrown race, etc.

The amateur rules, by the same token, are **not** primarily intended to protect the individual competitor from having to race against a man who may be better trained because of some incidental professional advantage. Nor are they intended to separate paddlers into a group of vestal virgins and a group of prostitutes. Nor are they intended to provide an occasion for nasty bickering and name-calling that, at times, befouls the name of sport. They are, as we said, simply and solely intended to prevent the professionalization of canoe competition.

Unfortunately, many competitors do

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not see it this way. They are all too prone to "call" a fellow competitor if they think him vulnerable under the ACA rules. A man is a ski instructor? Sells boats? Wrote a book? Took photographs and sold them to a magazine? Worked one summer for a Sierra Club or AMC commissary? All could be tagged, obviously, by far-fetched interpretations, and all are likely to be, if protests are made, under the present tendency in the ACA.

Competitors who do this are actually behaving much more like professionals than true amateurs. They are like the baseball manager who hopes to win a game by protest over some technicality. Happily, several of the Colorado contingent who had most to gain or lose by the ruling in Bryce's case made it plain that they were sorry not to have the opportunity to compete against him.

Ted Jacobs himself is a likeable man, whose demeanor showed that he was not happy in having to do what he thought his duty required. We do not quarrel with him as an individual. We do challenge, however, the institutional drive of the American Canoe Association toward an ever-narrower, ~~more~~ unrealistic concept of what befits an amateur.

#### Two Suggestions

We suggest that the following clause

be inserted high in the ACA amateur rules:

"Nothing in these rules shall be construed to ~~prevent~~ a canoeist from participating ~~as~~ a professional river guide, provided that he does not advertise himself, and is not advertised, as offering instruction in kayak or canoe; and provided that the type of boat chiefly used is not a canoe or kayak as generally defined; and particularly that it is not propelled by the single or double paddle."

We would also favor the following clause:

"The chief purpose of these rules is to prevent competition for pay or for a money prize. A man shall not be permanently declared a professional if, in the judgment of the governing authorities, the remuneration he may have received was not for competitive canoeing, or for training for competition."



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