CHAPTER 9—HIKING AND BACKPACKING

Section 1—Hiking

Yea, though I walk through the valley of the shadow of death, I will fear no evil for Thou art with me. Psalm 23:4

Paul walked mile after mile to minister to people. He hiked over mountains and through valleys. He trudged through barren wilderness and busy streets. No matter where Paul walked, he knew that his Lord was by his side and he was not afraid. At the end of his life, Paul wrote, "I have finished the race. I have kept the faith. Now there is in store for me the crown of righteousness." When our walk on earth is finished, may God give each of us a crown.



Hiking is fun, it is good exercise and can be done all year round but where would you go? What should you take? How long should you be gone? These and other questions will be answered in this chapter on Hiking and Backpacking.

PREPARATION

A good hike starts at home before you ever hit the trail. For a summer hike, the clothes that you wear should be light and made of cotton. A wide brimmed hat will keep the sun off your face and neck and a long sleeved shirt will keep you from getting sunburned.

You should wear thick socks that are clean and don't have any holes in them. If you are hiking on level ground, tennis shoes will work just fine but if you will be hiking on a trail, you will need good hiking boots that are well broken in.

Breaking in a good pair of boots takes some time. One of the best ways is to wear them day after day . This will help you find where the boots may need some adjustment and also will help mold them to you feet. Also be sure to use a good silicone spray of waterproofer to help keep the boots dry and clean.

DAYPACKS

To carry all the necessary items for your hike, you will need a good daypack. A fanny pack or frameless backpack, will work very well. There should be enough room in the pack to carry the following gear.

GEAR

Unless you have equipment for heating your food, your lunch should be made up of sandwiches, fresh fruit and other high-energy foods. Gorp is a mixture of high energy food and protein, including raisins, peanuts, banana chips and M & M's.

The canteen should be filled with water only. If you want to make Kool-Aid, do it in your cup.

The first aid kit should contain supplies to take care of small cuts, scrapes, bruises and blisters.

GETTING IN SHAPE

Before you go on your hike, you should plan where you are going on your map. On level ground, you will be able to go about 3 miles per hour. Hills will slow you down to about 2 miles per hour and hiking in the mountains to about 1 mile per hour. Your first day hike should be no more than 5 miles. On your map, pick a spot to stop for lunch that is about 2 to 2-1/2 miles from your starting point. This first hike will allow you plenty of time to get to your destination and back again.

Before you leave, make sure that someone knows exactly what your plans are and where you are going.

BASIC RULES

When you are finally on the trail, remember to obey a few basic rules. If you must hike on a secondary road, make sure to hike in single file and face the oncoming traffic. When crossing private land, make sure that you have obtained permission from the owner. If you go through any gates, make sure they are closed behind you. As you are hiking along, make sure that your stride is free and easy. You should never hike faster than the slowest person. A hike is not a race or an endurance test. Take your time. Stop to rest for a few minutes at least once every hour.

There are many different types of hikes. On a swimming hike you could be walking to your favorite swimming hole for an afternoon of fun with your friends. On a nature hike you can learn more about the beauties of God's creation by observing the plants and animals around you.

Section 2—Backpacking

Come to me, all you who are weary an burdened, and I will give you rest. Matthew 11:28

Paul sat back and relaxed. It had been a long day and he thanked God for Lydia of Philippi. Her heart warmed by the Gospel, she had opened her home to Paul and his helpers. The burden of his work was heavy and he welcomed the opportunity to relax.

Our Lord also carried a burden on His back. He bore the heaviest weight of all, our sins, which He carried all the way to Calvary. Now He says, "Come to me...and I will give you rest."

Backpacking is best described as advanced camping and should be undertaken only by those who are in good health and have hiked mountain or forest trails. It requires physical stamina and a genuine liking and love for the isolation of remote back country. But backpacking offers freedom found in no other type of wilderness travel.

Backpackers discover wilderness in many places and in many ways. An outing in the mountains can, and should be, a memorable experience. Yet hardly a year passes without people being seriously injured and sometimes killed on treks into the back country. Search and rescue missions are frequent and expensive, and unnecessary if only the forest visitors will be careful and not take chances or become careless.

PLANNING

From start to finish planning should be done at home by consulting outdoor trail books and forest or park topographic maps. By contacting to the Superintendent of Documents, U. S. Printing Bureau, Washington, D. C. 20402, you can obtain a list of sectional maps. Maps east of the Mississippi River may be obtained from the U. S. Geological Survey Service, Department of the Interior, Washington, D. C. 20240; maps west of the Mississippi River can be secured from the Geological Survey, Federal Center, Denver, Colorado 80200.

Get all of the information you can on the area where you plan to hike. Allow plenty of time for normal hiking. Two miles an hour is about average for mountain hiking when carrying a pack. Allow time for terrain problems, as well as time out to take pictures and for rest periods. If your schedule is too tight you won't be able to enjoy the magnificent scenery along the trail.

PERSONAL PREPARATION

As with any trip for pleasure or work, it is well to be prepared; the wilderness makes special demands on its users, and special skills are needed for certain types of wilderness travel. Before you start your adventure prepare your body to withstand vigorous exercise by taking progressively longer hikes near home. Backpacking is strenuous, but it offers great freedom. The backpacker can limit his speed to his own convenience, traveling as many miles a day as he finds comfortable and stopping where he desires

.

EQUIPMENT

Proper equipment is a must for a successful backpacking trip. Don't make a pack horse out of yourself! Youngsters under 14 should keep their loads under 30 pounds for a six or seven-day hike. Older teen-agers can carry 35 to 40 pounds, but the heavier the load the less enjoyable the trip. Since you must carry everything you will need during the hike, do not take any unnecessary items with you.

Remember...PACK LIGHT.

CLOTHING

Proper clothing and footwear are essential to the well-being of the hiker in addition to making the hike enjoyable. The underclothing you will be wearing will be dependent upon the weather and the climate you are in. Thermal underwear is desirable if the temperature is likely to drop considerably. The important thing to remember in choosing your outer clothing for hiking is comfort. Again, what you wear depends upon location. altitude, season of the year, and weather conditions. Basically you need protection from the elements be it the sun or the cold. Don't take old worn out clothing into the backcountry. It just won't stand up! Outdoor clothing and footwear should be designed and selected for three main reasons:

- ➔ It must be strong, lightweight and warm.
- ➔ It should not bind or hamper your movements.
- ➔ It should protect you from heat, cold, snags and dirt.

Dr. Robert Cutter, in his excellent outing equipment checklist suggests for a two-week trip:

- one or two lightweight shirts
- one wool shirt (not scratchy, long sleeved, with pockets that fasten)
- one or two pairs of trousers (jeans are popular but western types are often too tight, industrial type, cut loosely are preferred by some, army surplus fatigue pants by others)
- long underwear for cold climates
- rain poncho or rainproof jacket and pants.

This checklist also reminds hikers of all the small personal items that can make a trip enjoyable rather than a series of discomforts. It includes such necessities as:

- soap
- sunburn preventive
- hat
- first aid supplies
- sewing kit
- flashlight
- a plastic bag big enough to fit over your sleeping bag

To keep warm in cold weather, heat must be conserved and water vapor carried off without passing into the clothing layers. Ventilation is the answer! Successful ventilation requires two conditions: first, there must be space next to your skin for air to circulate; and second, air must be free to enter your clothing, usually at the wrists and pants cuffs and exit at the neck.

Net underwear with holes larger than 1/4" will take care of the ventilating layer. Avoid underwear that clings to your skin and wicks the moisture into your clothing.

The next layer consists of more or less conventional clothing: the wool shirt, the heavy trousers. Prime considerations here are comfort, utility and durability. Wool or some of the new synthetics in a spun fiber are good because they don't mat down and they stay warm when wet.

The insulation is your most important layer, and the most important thing to remember about insulation is thickness. Actually, dead air does the insulating and any material that will stop the circulation of air inside your clothing will be effective insulation.

To keep the weather out of your insulation, you need a windproof, water repellent outer shell. Most commonly, it is supplied by an outer wind parka capable of being completely sealed around wrists and face.

BOOT SELECTION

Footwear is one of the most important items of clothing. For those planning to hike any considerable distance. There is no such thing as an all around hiking boot or shoe. You will have to choose the boot or shoe which is best suited for the type of terrain you wish to hike. A boot must be fairly lightweight, have good flexibility, and be made of top quality leather. Keep within the three to four and one half pound range. Below that range you are looking at trail boots which are too soft and too fragile for backpacking. Anything over the four and one half

pound range is in the climbing or mountaineering class of boot. Each pound that you add to your feet is equal to ten to twelve pounds on your back. Stiff soles are for mountaineering. The soft-soled shoes are more comfortable. However, if you intend to do most of your hiking over rocky terrain, a stiffer sole is desirable.



The Hiker's boot should have a wide, stable sole which will distribute the weight as widely as possible. A lug sole is probably the best for comfort and safety. The softer the rubber, the firmer the footing, but the faster it wears out. The more space between the lugs, the less the sole will log up with mud, but again will wear out faster. The wedge type sole should be avoided. A heel provides breaking action when you are walking downhill and provides grip when climbing over rocks and logs. Leather used for the upper boot must be flexible, but durable and strong to provide support to the foot and protection against hard obstacles such as rocks. It must have the ability to absorb perspiration. "Top grain" is ideal for boot uppers. A rolled top facing prevents the top of the boot from chaffing the ankle. Hiking off the "beaten path" requires a boot that comes just above the ankle, basically a 6" boot is quite adequate, and preferable to a higher boot. The "tennis" shoe may e used when hiking along roads or well-worn paths or trails.

BOOT FIT

The last and most important factor in selecting a hiking boot is fit. The boot that fits is the boot you should buy. The shoe should be comfortable. Try the boot while wearing the socks you normally use when hiking. Usually two pairs should be worn to provide a better cushion and more air circulation around you foot. Generally speaking, start with a half size larger and width larger than your dress shoe. This will allow plenty of room for your feet to spread after being under the constant weight of your body. Your toes should be allowed to spread naturally rather than being cramped and uncomfortable. The arch and the heel should fit snuggly.

BOOT CARE

It should not be news to you that it is foolish to break in a new pair of boots on the hike. A slow approach to breaking in a pair of boots is the best. The leather needs to "give" in order to conform to the shape of your foot. While the boot is conforming to its shape, there will be some strain on the foot. You must realize that your feet may swell a full size during the day. Your boots should fit you as well at the end of the hike as when you put them on. If the boots are oil-tanned use Neat's Foot oil and rub it liberally into the leather. Give it a good work out, but don't over oil. Too much oil hastens the collapse of the leather. If the leather is chrome-tanned, stay away from oils. Oil will seal the pores in the leather and prevent it from breathing. Instead use a silicone wax or spray. When the leather is well worked, put the boots on and do some walking. After several walks your boots should conform to your feet and begin to feel more comfortable.

After a long hard hike or after hiking in water or snow, you may have to waterproof your boots again. Keep it off the soles, but make sure to work it into the welt where the upper joins the sole. An old toothbrush works well for this. After coating the leather, leave the boot overnight and wipe off any excess in the morning. When drying your boots, don't subject them to heat.

Nothing is more damaging to leather than heat. Drying boots by the fire only shortens the life of your boot. Storing them in a hot attic will have the same effect. Boots should be dried at room temperature. Drying out the inside of the boot is also important. Newspapers or dry rags can be stuffed inside. This will absorb moisture and aid the inside to dry evenly with the outside.

Dirt is another enemy of leather, if not removed. Clean the dirt from your boots with a rag or sponge using clean water. To give your boot a thorough cleaning, a rubdown with saddle soap will do the job. In lacing boots, insert the laces from above and pass it down through the eyelet. This overlap method produces an inward tension and distributes the tension very evenly. All day they will feel as firmly laced as when they were first tied. To prevent the knot from resting against the tongue, bring the lace through the top eyelets from underneath.

The socks worn while hiking should be without holes, and should be without mending. Wear an extra pair of socks. Your socks should not be too big for your feet. New socks should always be washed at least once before wearing them while hiking. Many hikers like a thin, non-irritating pair of socks next to their feet with a heavier pair on the outside. The inner pair are generally of silk or nylon and the outer of wool.

PACKFRAME

The packframe is usually made of some lightweight metal alloy. It is designed to hold the bag and has the shoulder straps and waistband attached to it. The packframe should have one large or two smaller backbands. These should be adjustable vertically (their position on the frame) and in terms of their tension (usually the tension is adjusted by some cord of lacing). The waistband is one of the most important parts of the packframe. One of the advantages of this type of backpack is that the waistband can transfer 75% of the pack weight to your strong hip bones and upper leg muscles. This takes the strain off the back and shoulders and makes backpacking more enjoyable.

The waistband should be as wide as possible. It must be at least an inch to an inch-and-a-half wide. Two inches is even better. Some of the better waistbands are padded. One type is wide enough (four inches) and padded enough to replace one of the usual two backbands.

The packframe should have space for your sleeping bag to be strapped on it. Usually the sleeping bag is rolled and strapped on the bottom third of the frame.

The shoulder straps should be padded. They must be adjustable in length. Some packframes also have straps that can be adjusted on the frame cross bar (right behind your shoulder). This is a nice feature, but may not be necessary.



PACK

The pack is usually made of some type of nylon material, and should have several pockets around the outside of it. These are important because they allow you quick access to items you use often. It is very handy if the outside pockets are large enough to carry one of your water bottles or canteens. These pockets should all have some way of being

closed (zippers, snaps, ties, etc.).The main cargo space may be divided into two or three spaces either horizontally (fairly common) or vertically (not too common).

The pack may be attached to the packframe by a variety of methods. How it is attached is not as important as the fact that it is detachable.

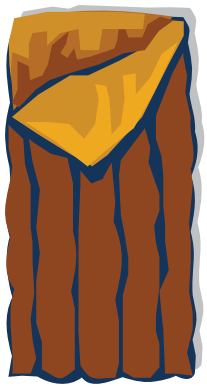
The pack should be either water repellent or waterproof to keep the contents dry.

GEAR

The design of the pack is not as important as the way you pack your gear in the bag. The heavy items should be carried as high and as close to your body as possible. Pack light things such as clothing, dried foods and sleeping bag, etc., t the bottom of your pack. Put heavier items at the top. Keep little things you want handy in the outside pockets or at the very top of your pack. Be sure that your first aid kit, lunch and poncho are easily available. Your toilet kit and other items should be put into waterproof bags so that the contents of the bag are not scattered.

SLEEPING BAG

About a third of every 24 hours is spent in bed or along the trail in a sleeping bag. With proper guidance and the right bag, you can sleep warmly! Consider the climate you are going to be in. The sleeping bag is the single most important piece of camping gear. The main things to consider in selecting a bag are compressibility, weight and loft (the space between the inner cover of the bag and the outer).



A sleeping bag is for warmth and the thickness of the insulation determines the degree of warmth. All good sleeping bags are made with an overlapping or "box cell" construction. An outer covering should be water repellent but not waterproof, for a sleeping bag must be able to "breath." If this is not the case, the moisture from the body will be retained, thus causing the loss of warmth. A rubberized or waterproof covering on the bottom of the bag causes the body to perspire unnecessarily, which may make your bag cold. Sleeping bags need a minimum of care and will last you a long time. Sleeping bags should be aired out frequently. The sun's rays are an excellent sterilizer and will also help to re-fluff the filling. Bed sheets or liners should be used to keep the bag clean, and this will prolong its life.

A waterproof ground sheet should be used under the bag to protect if from moisture and wear. A 4-1/2 by 8-1/2 foot sheet of 3-mil vinyl is ample. Sleeping bags should be dry-cleaned for best results.

Here are a few tips on how to keep warm and keep your sleeping bag dry. If, because of cold, you pull your head inside the bag, it will frost up around the opening due to your warm breath. Breathe outside. You will sleep more warmly if you wear a knitted navy watch cap or a stocking cap on your head and wool socks on your feet. Sleeping bags should be insulated from the ground - especially in snow country. Ensolite closed-cell pads work the best. They are light in weight with very little bulk. Generally speaking, air mattresses are too heavy an may not provide the insulation you need from the cold damp ground. A rubber hot-water bag is worth its

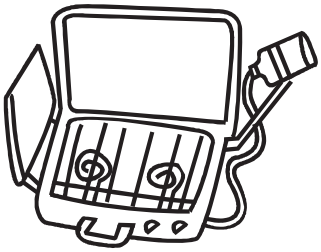
weight when tucked into the bottom of a sleeping bag on cold frosty nights. You can use the water in the bag for washing and cooking water in the morning and won't have to use up precious fuel for melting ice or snow.

You will sleep cold if you crawl inside your bag with the same clothing you hiked in during the day if they are damp from rain or sweat. Better to sleep raw if you haven't dry clothing to put on.

TENTS

To take a tent or not to - that is the backpacker's question. Naturally, a bed beneath the stars has a romantic appeal, but in most parts of alpine country it is best to be practical and carry some type of shelter. The ideal tent is waterproof but at the same time, it "breathes." A waterproof tent will have a good coat of condensation on the inner walls after a night's sleep. A good backpacking tent is lightweight and breathable. To protect you from the rain, a waterproof fly is erected over the tent. Now, if it rains, the water will run off the fly and onto the ground. The moisture from your breath will go through the breathable inner wall and condense on the inside of the fly, again dripping on the ground.

BACKPACKING STOVE



In some areas it is not practical or legal to build an open fire. This is when you must use one of the many backpacking stoves on the market. Generally speaking, these stoves are light in weight and burn white gas, propane or butane. Most of them will boil a quart of water in between 5 and 10 minutes. The type of stove that you pick depends on what type of fuel you like to use best, the time of the year you go camping, the amount of weight that you carry and so forth.

PLANNING

As early as possible, you should notify or contact the administrators of the area you plan to enter. Advise them of the size and average age of your group and outline your plans and itinerary. The leaders should be familiar with conditions in the territory to be visited. Group leaders must make advanced plans to cope with the unexpected. They should know:

- Whom to notify first in case of an accident.
- Who will take charge if the leader is injured.
- Who will accompany an ill or injured hiker out of the mountains and home if he is unable to walk out.
- Who is responsible for rescue, ambulance and doctor bills.
- What to do if the group becomes separated.
- Where to seek help at intervals along the trail (from studying the topo map).
- Where is the nearest phone, ranger's station, pack station or road head and what is the quickest and best route to get there.

Now that the preliminaries are out of the way, keep in mind a few basic rules before setting foot in the wilderness. First of all, make a check list before taking off to make sure that nothing has

been left behind. Check each item off as you place it in your packsack. Examine your list with a critical eye for unnecessary items and accessories that will help keep your pack weight down.

For a quick energy booster along the way add a small bag of chopped nuts, hard chocolate and raisins to munch along the trail between meals. You should have at least one hot meal during the day, preferably early in the evening, consisting of energy-building food.

BACKPACKING COURTESY

Hiking requires certain courtesies. Step aside for descending hikers. Pack and saddle stock have the right of way. Step to one side of the trail where the animals can see you and remain quiet while they pass, otherwise they may "spook", possibly causing a serious accident. Good judgment is learned from experience.

SAFETY

Use caution near slides and avalanche chutes. If your trail crosses a snowfield, look down - see where you are stepping. Shaded snowfields are usually hard ice, and those easy-to-walk-on snowfields may have large cavities beneath them which can break through.

When crossing streams, take time to search for the best and safest possible way across where ripples in the stream indicate the shallowest water. Remove your socks and wade across in your boots for maximum footing on slippery rocks and mossy stream bottoms. Loosen your backpack waistband before crossing for easy release from your pack should you slip and fall. Use a sturdy limb or pole as a depth probe as well as a third support against swift current.

If you leave your camp for any reason, hoist your pack high in a tree out on a limb. Make sure the rope is away from the trunk so that a bear cannot pull the rope close and chew it through. Bears, raccoons, skunks and rodents can find food deep in your pack if it is left on the ground.

Alpine insects, at certain times of the year, will find you personally choice bait if you have forgotten to bring an insect repellent.

The park and national forests belong to all of us, so help keep them clean. Pack out all your unburnable trash and help keep your forest recreational areas free of cans, glass, plastic, tinfoil, candy and gum wrappers and other unsightly debris. A latrine and garbage pit should be prepared out of camp sight and well away from any stream or water source. After each use, it should be covered with a layer of dirt and it should be completely filled in when no longer needed.



Don't take short cuts - cutting switchbacks damages the trails and takes more energy than staying on the trail.

Don't hurry, and anticipate the strength of your party for the return trip.

Before breaking camp, be sure that your camp and warming fire is dead!

After striking camp, check again to be sure every spark is out!

Leaders of extended trips should prepare themselves by completing at least the Standard American Red Cross First Aid Course, and preferably the advanced course. Make sure the personal and group first aid kits are complete.

Maintaining good "march discipline" is difficult when hiking with a group of backpackers. Many set too fast a pace so that the slower hikers end up scattered along the trail. Have the slowest person in the party up in front with the leader so that the group can walk at the pace this person can manage. Travel only during daylight hours, and hold your schedule to six hours or less of hiking per day. Ten miles per day should be maximum for young people with heavy packs. Take short rest stops to enjoy the scenery and take pictures - you will enjoy these in later years.

It's a good idea to look back over your trail. Study the way home, the trail will look different on the return trip! Play it safe, and mentally mark every fork at trail junctions so that you do not become confused on the return route. Observe nature's landmarks for future references - stay found at all times.

A back-country outing is an inspirational journey - a lesson in respect for nature and its beauties. Properly planned, it will build character and physical fitness while developing self-reliance, resourcefulness and a spirit of cooperation.

OBJECTIVES

CHAPTER 9—HIKING AND BACKPACKING

Recruit

1. List the proper clothing and equipment needed for a hike and explain why each is important.
2. List the safety rules for hikers and explain why each is important.
3. Take a 5 mile hike keeping a journal.

Camper

1. List the rules for proper backpacking safety and explain why each is important.
2. Make a personal equipment list for an overnight backpacking trip.
3. Take a 10 mile hike keeping a journal and drawing a map of your trip when it is completed.

Frontiersman

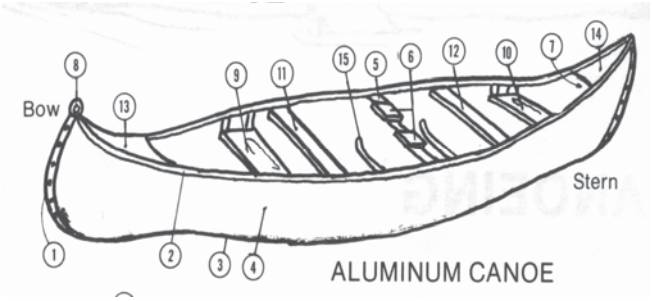
1. Plan a one week backpacking trip including the following:
    a. Hike route (including maps)
    b. Equipment (individual and group)
    c. Food (menus and quantities)
    d. Daily devotions
2. Take a backpacking trip of at least 2 days.

CHAPTER 10—CANOEING

Then the angel showed me the river of the water of life, as clear as crystal, flowing from the throne of God and of the Lamb down the middle of the great street of the city. Revelation 22:1,2

Paul never paddled a canoe yet he knew the job of smooth sailing and the pleasure of reaching camp. He knew also the rough times, the sting of the wind as it whipped across the water, the chilling rain as it soaks to the skin, and the heat of the blazing sun. Paul saw it all. He crossed the portages and carried his packs. Through it all Paul saw his destination and when he crossed that last portage, he stood by the river of the water of life with his Lord. God bring us there!

One of the greatest experiences a young man can enjoy is to quietly glide over the shiny surface of a wilderness lake in a canoe. It is like a health tonic to be lured to the green wilds of a great northern river. You can feel the excitement build as you discover places that don't show the scars of man. It's great to slip along quietly where no other craft can go, and come within a few feet of a raccoon, turtle, or great blue heron, before being discovered. To travel and camp from a versatile canoe is a thoroughly enriching experience. Of course you will need skill, the right gear, but mostly, common sense.



PARTS OF A CANOE

All good canoeists know the parts of their canoes and paddles. These basic parts aid tremendously in the proper knowledge for the handling and paddling of a canoe.

Look over Figure 1 on the following page along with the listing of the parts.

1. Bang Plate: on aluminum canoes, it is the curved metal plate running from the deck to the keel; holds metal skin together and takes bangs; called stem band on wood and canvas canoes.
2. Gunwales: (pronounced gunnels) the upper rails of a canoe.
3. Keel: a strip of wood or aluminum running along the center-bottom of a canoe.
4. Skin: the outer covering of a canoe.
5. Yoke: a special crossbar equipped with shoulder pads for portaging.
6. Yoke Pads: soft shoulder pads attached to the yoke.
7. Flotation: Styrofoam or other buoyant

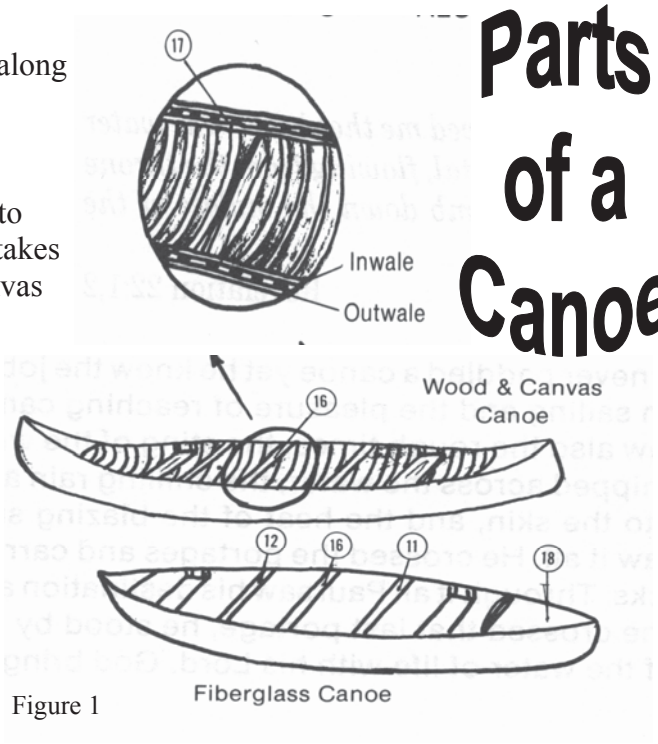


Figure 1