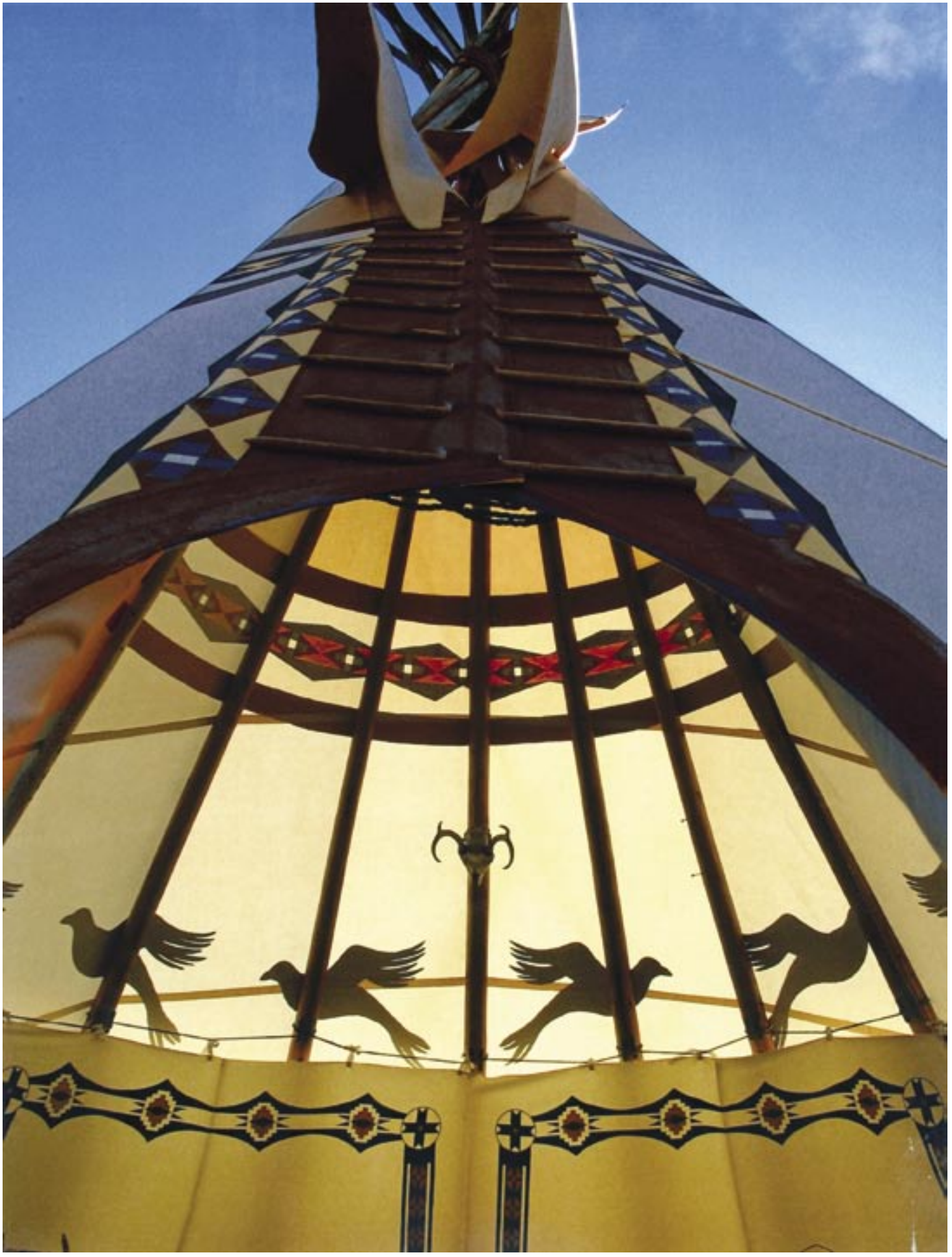
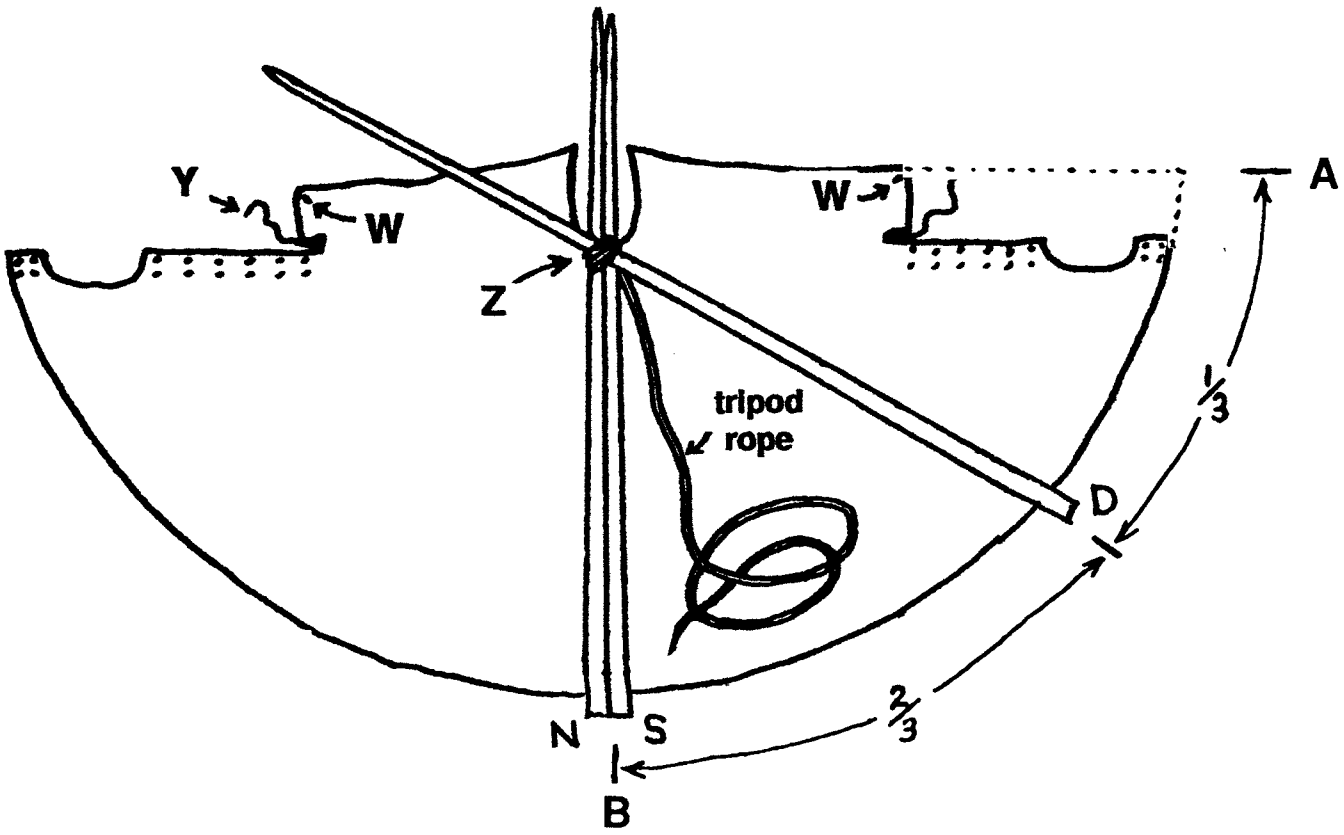


A Historical Note

We have included the information on this page to show you the original procedure that the Sioux used to determine the proper tripod pole measurements. If you have a tipi and do not know what size it is (or if you lose this set up booklet) you would use the method explained on this page to find your exact tripod pole lengths. It is simple and it works every time. We include this page only as an interesting historical reference. You will not need to follow the instructions on this page. The complete instructions that you will follow to set up your Nomadics tipi begin on page **4**. All the measurements you will need are already figured out for you starting on page **5**.



In order to establish the proper position and length for the door pole, start at **A** and walk around the edge of the tipi cover to point **B**. Walk toe-to-heel one foot in front of the other and count your steps from **A** to **B**. Let us say for instance that you count 30 steps from **A** to **B**.

Simply divide 30 by 1/3. This gives you 10. That means that you start again at **A** and walk toe-to-heel around the edge of the tipi cover 10 steps, going towards **B** again. Stop at 10 steps and place the end of the door pole (**D**) at that point on the edge of the tipi cover. Your three tripod poles should now look like the drawing above. The north and south poles going side by side down the middle of the tipi cover, the door pole placed **1/3** of the way from **A** to **B**, and the door pole crossing the north and south poles at **Z**.

We prefer to have our tipi cover about 2-3 inches off the ground when it is finally set up. To provide for this , we pull the butt ends of the north pole, south pole and door pole about 4 inches beyond the edge of the tipi cover when we lay these tripod poles on the cover for measuring the tripod. We raise the bottom of the tipi cover 2 inches off the ground to allow better air flow up behind the liner. This is also helpful even in the winter. It does not make the tipi cold.

Instructions for Setting Up a Sioux Tipi

These instructions are available for download and printing in their entirety from our website.

NOMADICS TIPI MAKERS
17671 Snow Creek Road, Bend, Oregon 97701
(541) 389-3980 www.tipi.com

Greetings from the Nomadics Tipi Makers

These tipi set-up instructions are complete and detailed in every respect. Although you may be familiar with setting up tipis, you must use the exact measurements that we provide here. If you use the correct tripod pole lengths and the ground plan distances, your Nomadics tipi will set-up tight and winkle free. Additionally, a secure, properly tied clove hitch is the only acceptable knot for ensuring a strongly bound tipi tripod. Always read the entire section of a set up phase before beginning that particular part of the set up process.

Although it is rarely necessary, we are always happy to help you trouble shoot issues that might arise. Read through all the basic set-up instructions before you begin, then follow them carefully and you will have a fun, enjoyable and successful set-up experience. Two people who have never set-up a tipi before should complete the cover set-up in 2-3 hours. The tipi liner will take 1-2 hours.

Tools you will need:

- 25’ tape measure
- Pocket knife or sharp scissors
- Hammer
- Hand saw or hatchet
- Short step ladder or equivalent
- Black felt marking pen

Optional tools:

- ½” to ¾” Electrical staples
- Matches or lighter
- ¾” or 1” Tack or short nail
- 10 ft. of ¼” wooden dowel

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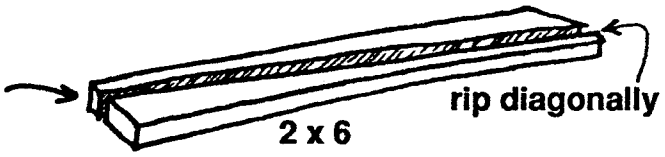
INSTRUCTIONS FOR SETTING UP A SIOUX TIPI

Set your tipi up on level ground that is slightly higher than the surrounding area - this prevents drainage problems in wet weather. Avoid living directly under old trees that might drop dead branches on your tipi during wind storms. Try to choose a tipi site that will get maximum sun in the winter.

PREPARING YOUR TIPI POLES: If you have purchased tipi poles from us the poles have already been hand peeled. You will need to smooth out any remaining rough spots or branch nodes. Use either a sharp flat blade hatchet, a draw knife, a hand or small electric planer or an electric belt sander using progressively smoother grades of sandpaper. Once your poles are smooth you need to treat them with a wood preservative. This will ensure that they will last you 10-15 years and will also help keep the natural light color of the wood. For an organic treatment we prefer a brew of 50% boiled linseed oil (it comes that way from the store) and 50% turpentine. Apply this mixture three times allowing complete drying in-between coats. An excellent commercial product is called Superdeck. Buy it in a clear, natural color. If you are getting your own tipi poles then any species of tree will do for a tipi pole. The important requirements are that it be 3" in diameter at the butt and taper to 2" in diameter where the cluster of poles cross. Of course the straighter the tipi pole the better. If a pole is a little bowed, twist the pole so that the bow is against the tipi canvas once the tipi cover is around the poles. If your pole choice is limited it is better to get poles that are 2-1/2" at the butt rather than going to a larger to a 3 1⁄2" or 4" diameter at the butt. Your poles can extend beyond the top of your tipi as far as you like. However, if you are trying to keep them short for easy transportation then they only need to be 2 ft. longer than the stated size of your tipi, i.e. 20 ft. long for an 18 ft. tipi.

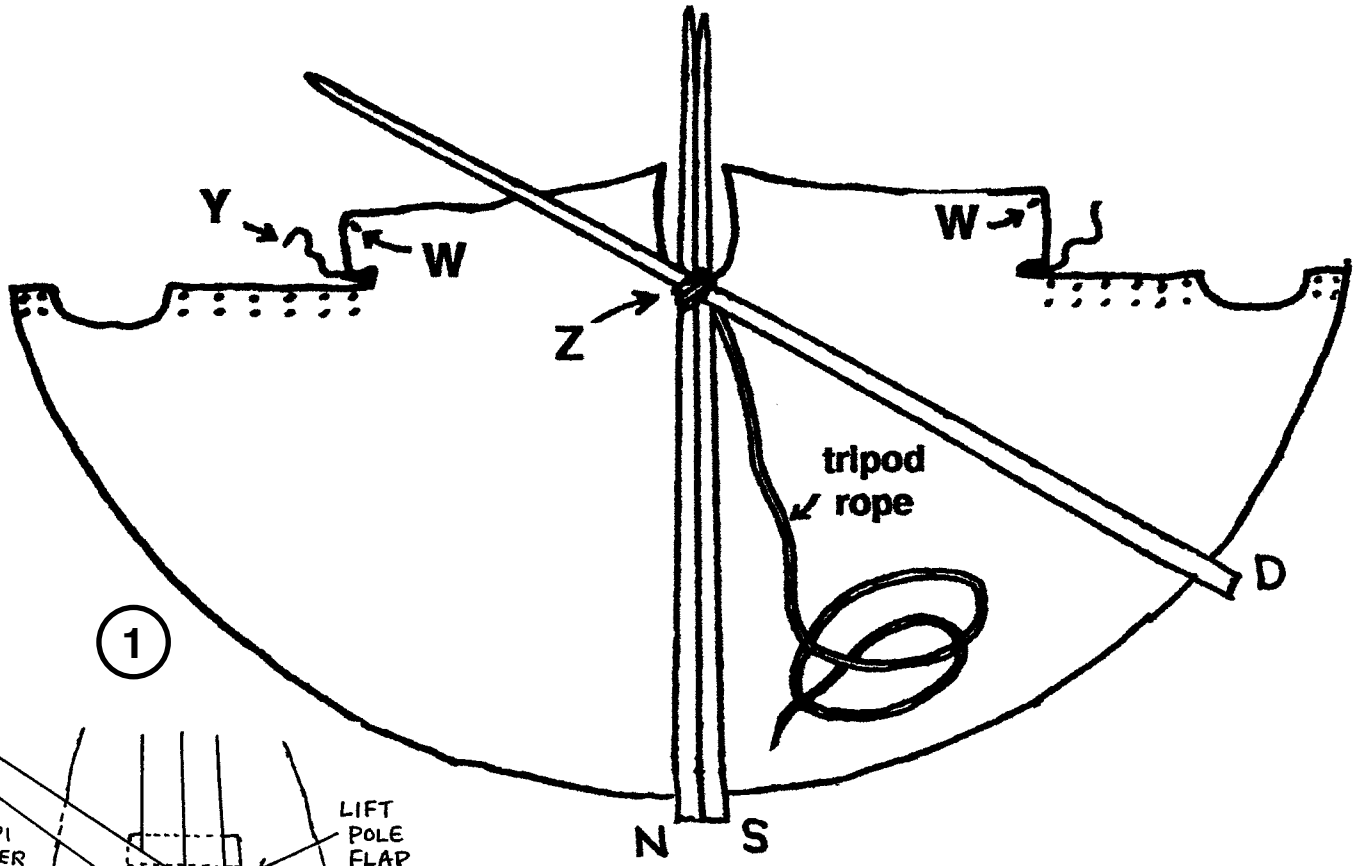


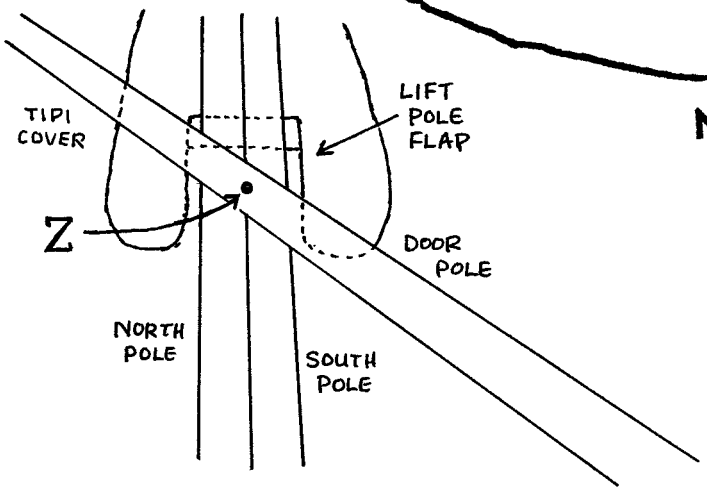
Regardless of where you live there will usually be one species of tree that will grow in a rather tight, crowded stand causing the trees to grow tall and thin. Unless these trees have a lot of limbs they will probably be your best bet for a good tipi pole. Thin out your tipi poles carefully. This can actually help the remaining trees to grow by reducing the competition for light and soil nutrients. Work your poles smooth with a draw knife or sharp hatchet. If time and energy allow, sand the poles smooth with medium sand paper and then rub them down with wood preservative.

If you gather your poles in the spring then you may be able to simply pull the bark off with you fingers. Poles should be as dry as possible before putting up your tipi. The sooner you remove the bark from the poles the easier it will be to get it off. Be sure your poles are laid flat for drying, the first few days being critical. If you have no trees available to you and you can't afford to buy any then you can make do with ripped lumber. Get a lumber yard to rip a 2 x 6 or a 2 x 8 diagonally from one corner to the opposite corner on the other end. Round the square edges and you have a tipi pole – see drawing above. Regardless of the kind of tipi pole you use your finished pole must be smooth to the touch. This allows rain to glide down the underside of the pole and disappear behind the tipi liner without dripping into the tipi. In wet climates you may want to treat the bottom 4" to 6" of your poles with creosote or penta that help retard rotting due to excessive dampness and contact with the soil.

What if you don't have time to dry your poles before putting up your tipi? If this is the case then twist each pole 180 each day for about 10 days or so. This will continually compensate for the bow that wants to develop in the poles. You cannot do this with your tripod poles. They are locked up tight. Likewise, you cannot do this if your tipi liner is up. Leave it off until your poles are sufficiently dry.

LAYING OUT THE TRIPOD POLES: Select your three sturdiest poles for the tripod poles. Now select your two shortest, smallest diameter, and least straight tipi poles. These will be your smoke flap poles. Set them aside for now. We will come back to them later. Spread the tipi cover out flat on the ground with the inside side of the cover facing upward toward the sky as in illustration **1**, below, (Our address label is sewn on the inside of the cover. Also there is one peg loop sewn on each side of the door hole opening on the outside of the tipi cover.) When the tipi is set up the door hole should be facing East toward the rising sun. All of the following instructions assume that the tipi door will face East.





The three tripod poles are referred to as the **North Pole**, the **South Pole**, and the **Door Pole**. When the tipi is set up with the door facing East the north pole will be on the north side of the tipi, the south pole will be on the south side of the tipi and the door pole will be beside the door on the left side. We refer to the right side of the tipi as the side to your right when you are facing the door hole, and the left side is to your left. See illustration **4** and photo **9**.

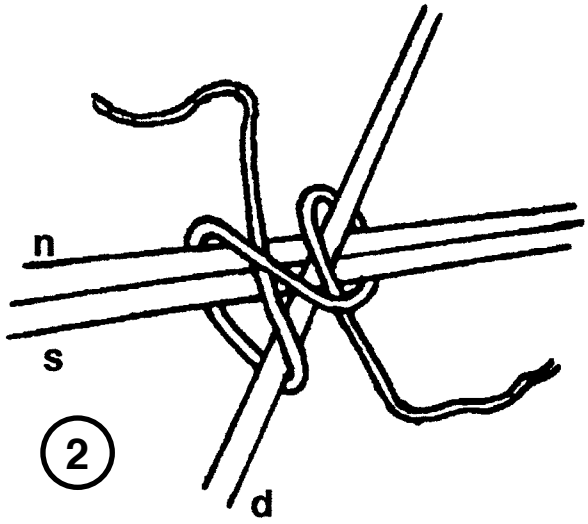
To measure the tripod poles for tying, refer again to illustration **1**, above. The north pole and the south pole are laid down the middle of the cover, side by side. The north pole is (**N**) and the south pole (**S**). The door pole (**D**) is now laid across the north and south poles and crosses them right at the base to the lift pole flap (**Z**). See **1**. **IMPORTANT:** Now see the tripod pole chart under measurements for tripod set up on page **5** This gives you the exact measurements you will need. Note: You do not need to do this layout, measuring and tying on top of the tipi cover itself. The poles can be laying wherever is most convenient. However it is best to do it as close to your actual tipi site as possible. Lay the door pole across the north and south poles at the approximate angle that you seen in illustration 1. This exact angle is not critical but the measurements are.

MEASUREMENTS FOR TRIPOD SET UP

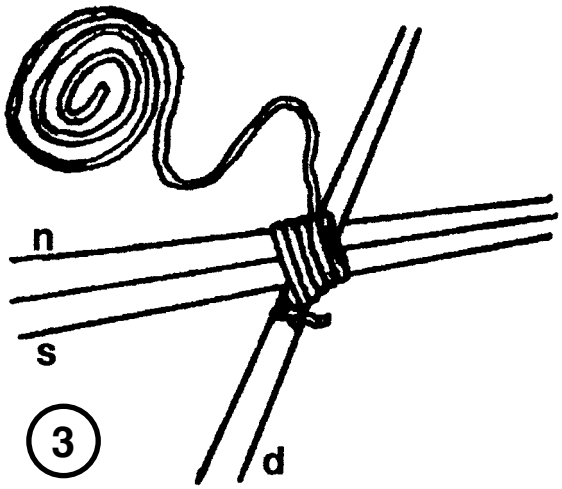
To insure a correct tripod set up here are the exact measurements for tying your tripod poles. Cross the three tripod poles as shown in illustration 1. The measurements given below are from **Z** to **N**, **Z** to **S**, and **Z** to **D**. These measurements already include 4" extra pole length.

TIPI SIZE	Z to N	Z to S	Z to D
12'	10'3"	10'3"	11'2"
14'	11'10"	11'10"	13'4"
16'	14'	14'	15'6"
18'	16'	16'	17'4"
20'	18'4"	18'4"	19'8"
22'	20'	20'	21'5"
26'	23'6"	23'6"	25'8"

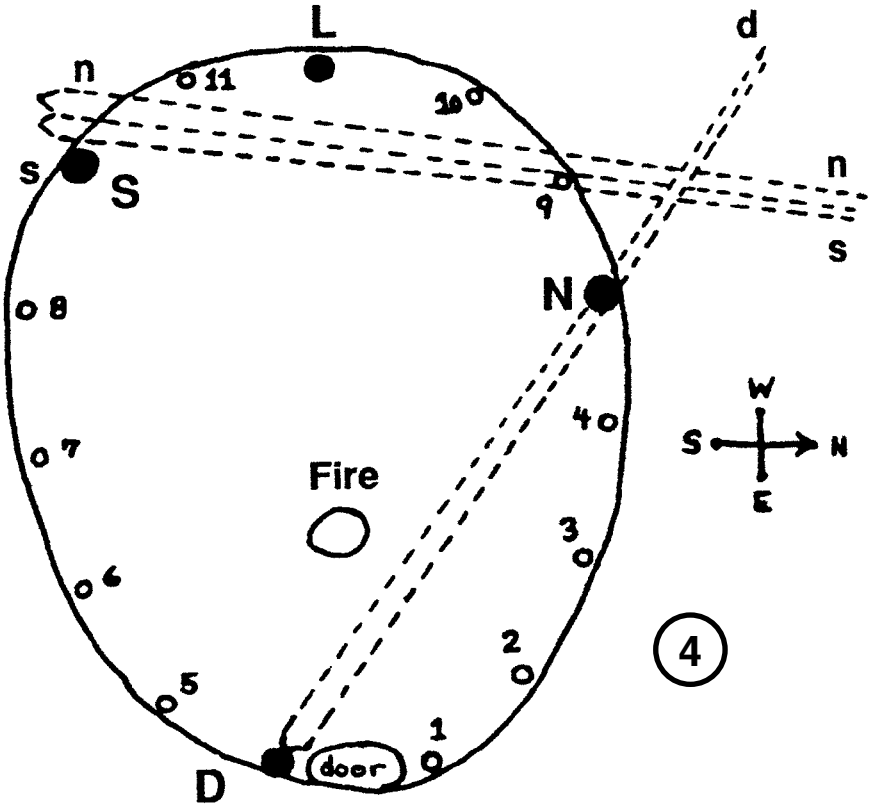
TYING THE TRIPOD POLES TOGETHER:
You will need 45 feet of good quality 1/2 inch manila rope. Straw rope will also be suitable. Synthetic rope will not do. Synthetic rope slips against itself and will not grip the poles. Begin by tying the three tripod poles together with a clove hitch as in illustration 2. Start with about 6 feet of rope so that when the clove hitch is tied you have 5 feet of rope left over on one side of the knot and about 38 to 40 feet left over on the other side of the knot. Now starting just below the clove hitch wrap the 5 feet of rope around the poles three or four times and finish it off with another clove hitch, see illustration **3**. Now the tripod poles have been tied together. The other long end of the tripod rope will be used to raise the tripod - Do not cut it off! Your three tripod poles should now look like illustration **1**.

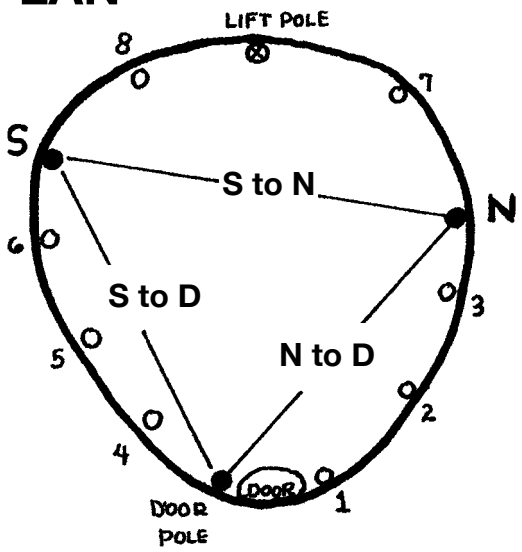


RAISING THE TRIPOD:
Now, being very careful not to let any of the poles slide at the knot, carry the tripod to your tipi site maintaining the relative positions of the tripod poles. To set up the tripod on the proper location, place the butts of the north and south tripod poles near the black dot **S** in illustration **4** on the Ground Plan page **6**. Place the butt of the Door Pole at the black dot **D** in illustration **4**. The dotted lines in **4** show the position of the tripod poles on the ground.

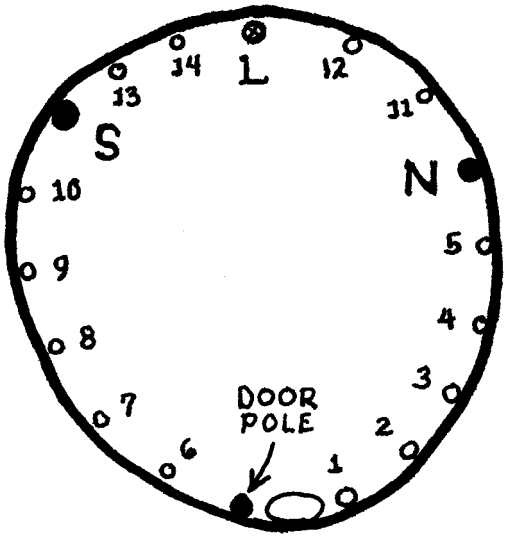


THE TIPI GROUND PLAN





Ground Plan for the 12 & 14 ft. Tipi Set up. Note that the 12' and 14' tipi set up requires only 12 tipi poles in the total framework.



Ground Plan for the 22 & 26 ft. Tipi Set up. Because of the large size of the 22 and 26 ft. tipi, you need to add 3 additional poles to the standard 15 pole framework. (This is necessary for the 26 ft. but optional for the 22 ft.). Add one more pole to each of the three sections as illustrated here. That is a total of 18 tipi poles in the framework.

POSITIONING THE TRIPOD POLES:
Now place the tripod poles as nearly as possible into their final positions. The measurements given here show exactly how to position your North, South and Door poles. Find the size of your tipi on the left column and then measure out the three distances **S** to **D**, **N** to **D** and **S** to **N**. See illustration. There measurements are made along the ground from the inside of the pole butts. You will notice that the tripod poles form an isosceles triangle. An isosceles triangle has two equal sides.

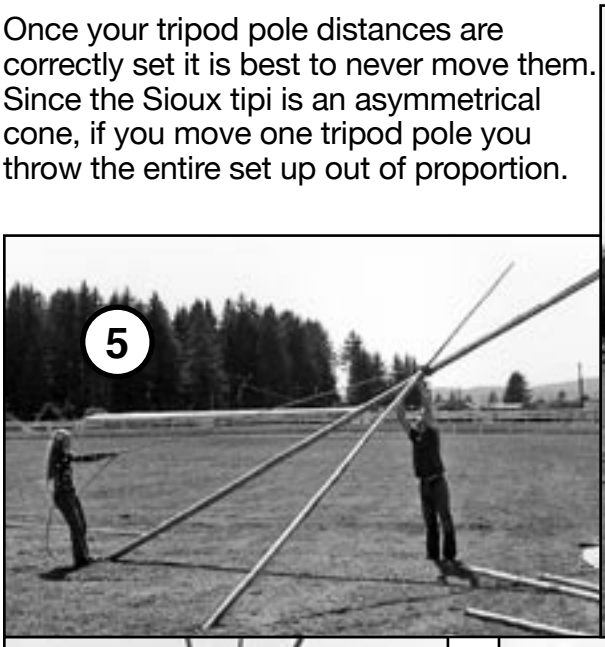
The distances given below are from **S** to **D**, **N** to **D** and **S** to **N**.
See Ground Plan above.

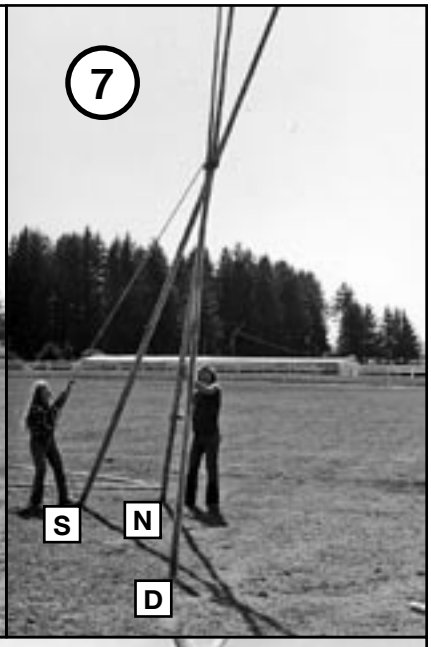
TIPI SIZE	S to D	N to D	S to N
12'	10'5"	10'5"	8'10"
14'	11'6"	11'6"	10'3"
16'	13'6"	13'6"	12'
18'	16'	16'	13'
20'	18'	18'	16'6"
22'	20'	20'	18'5"
26'	23'10"	23'10"	22'3"

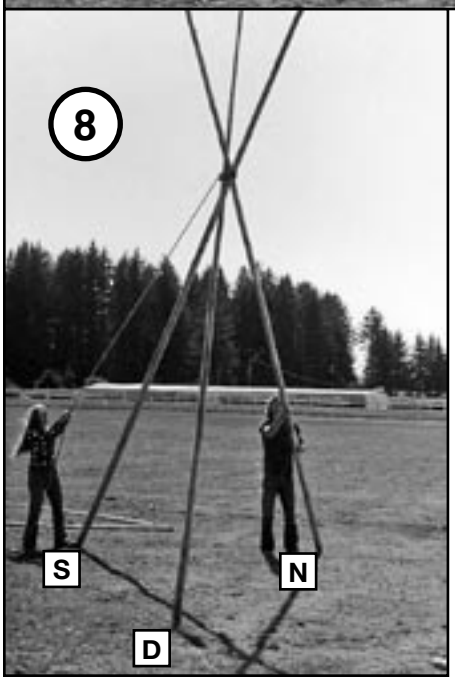
Now see photograph **5**. One person puts their foot at the base of the **N** and **S** poles and pulls on the tripod rope as the other person walks up under the poles pushing up slowly as they are raised. If you are alone, raising the tripod by yourself is not difficult. Simply prop a five to six foot pole, board or ladder up underneath the tie point and then continue to raise the tripod as in photos **5** and **6**. Then while holding the poles in a near vertical position, with the rope in one hand, simply push the north pole out and away from you approximately six feet and release the tension on the rope allowing the tripod to sit on the ground. The tripod is now stable and you can begin moving each pole out to its correct position according to the ground plan. Take the north pole and slowly spread the poles into a tripod by swinging the north pole away from the south pole and placing the butt of the north pole at the black dot **N** in **4**. See this sequence in photographs **6, 7, 8**, and **9**. **NOTE:** If your clove hitch has been properly tied there should be a reasonable amount of resistance from the knot as you swing the north pole into position. You should hear definite creeking and squeaking of the rope as the clove hitch clamps down on the tripod poles. It should feel very strong and secure.

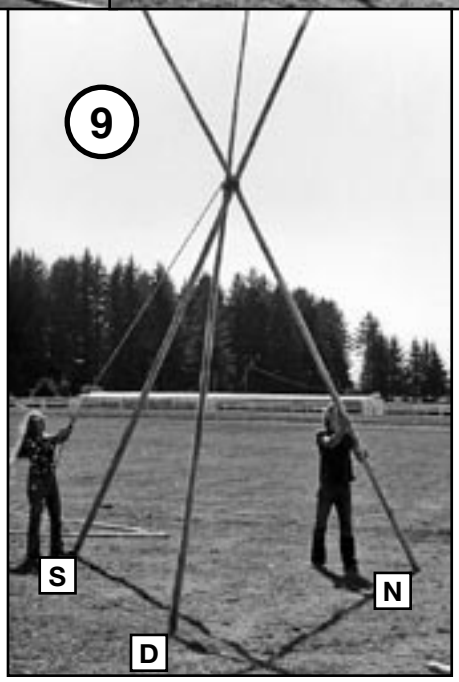
The tripod is now locked into position. The three tripod poles should be in approximately the position shown in **4** for N, S, and D as shown on the **TIPI GROUND PLAN**. At this point you can test the strength of your tripod by swinging from the tie rope. It should easily support two adults. See photo **10**.

Once your tripod pole distances are correctly set it is best to never move them. Since the Sioux tipi is an asymmetrical cone, if you move one tripod pole you throw the entire set up out of proportion.

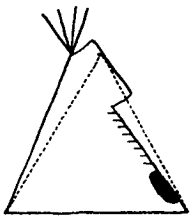






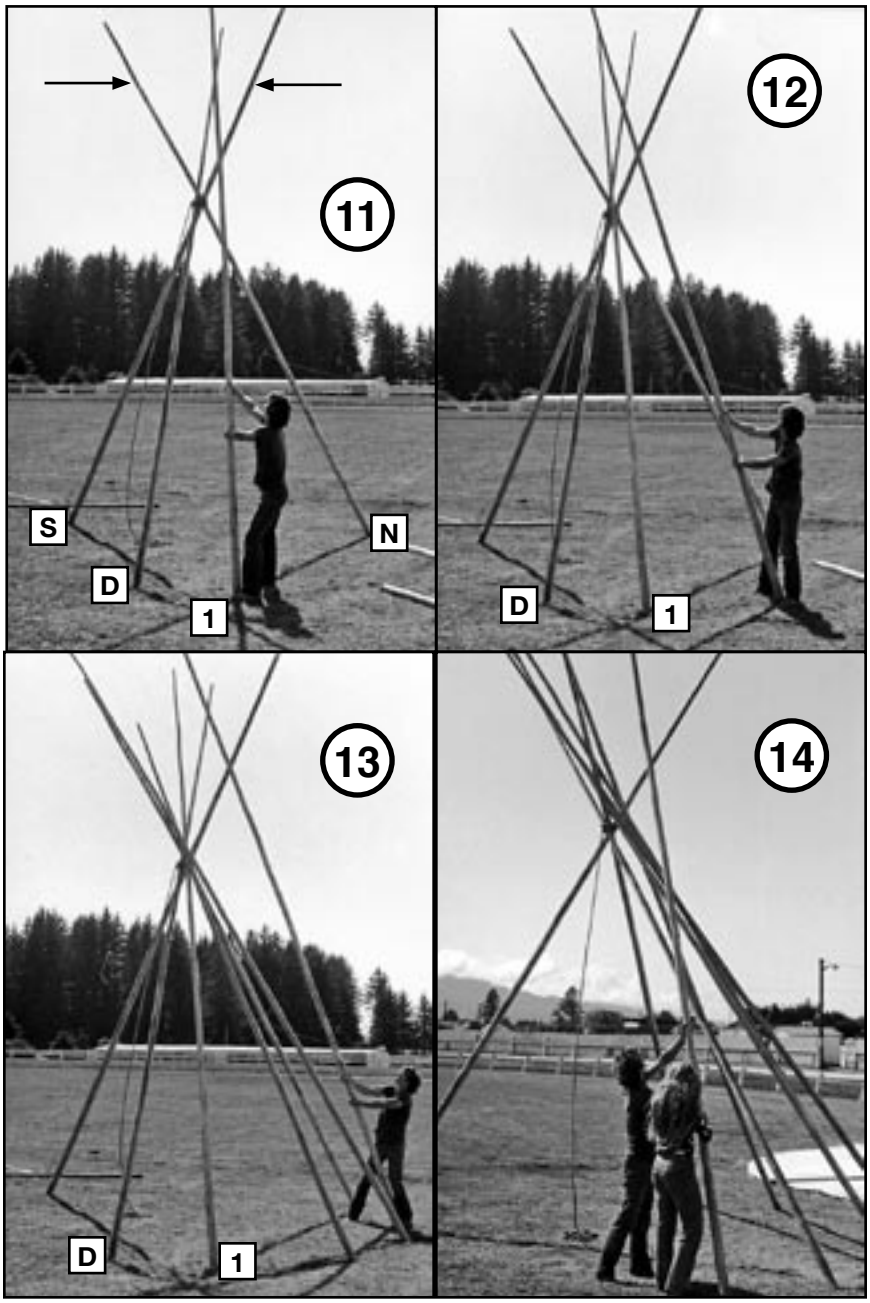


The tipi is not a perfectly symmetrical cone, it is an asymmetrical cone. It is the longer door pole that causes the tipi to tilt to the rear. In the illustration here the dotted lines represent a perfect cone. The longer, more angular front slope to the tipi helped brace the tipi against the west winds and also afforded more head room at the back of the tipi which is the main living space. This also accounts for the tipi floor being egg shaped.



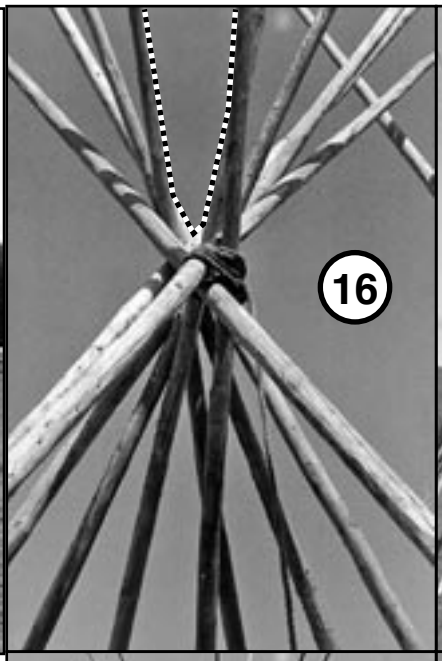
LAYING IN THE POLES: Now select your sturdiest pole and set it aside. This will be your lift pole. It is used to lift the tipi cover into place after all the poles have been laid in. When carrying a tipi pole around, carry it straight up and down, perpendicular to the ground. See **17**.

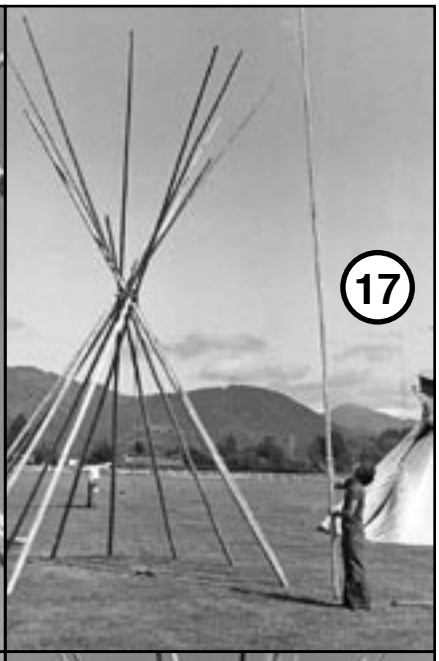
Now look again at illustration **4**. Small circles are drawn to indicate where the butt of each pole goes. The numbers 1 through 11 indicate the proper sequence in which the tipi poles should be laid into the three tripod poles. Note: The 14 ft. and 26 ft. tipi have a different number of tipi poles and pole positions than the other tipis. See the Ground Plans in illustration **4**. Select a pole and place the butt of the pole at the "1" position as indicated in **4**. I am placing the number 1 pole in position in photo **11**. Put your foot at the base of the pole as you lower it slowly into the front crotch of the tripod poles. It is very important that poles 1, 2, 3, 4 and poles 5, 6, 7, 8 all be placed in this front crotch. I have placed arrows in photo **11** to indicate the "V" that represents this front crotch of the tripod. This front crotch "V" is formed by the north pole and the south pole. When the number 1 pole is in proper position, the distance between the butt of the door pole and the butt of the number 1 pole should be about 3 feet. This is where the tipi door hole will be. See **4**. Also look at **33**. In **33** you are looking at the door from the inside of the tipi. Notice that the door pole and number 1 pole run right along-side the door hole. This gives the door hole good taut support and helps hold its shape.



Now, in the same manner, and using the illustration **4** as your Ground Plan guide, place poles number 2 , 3 and 4 in position. See photo **12**, and **13**. Now lay poles 5,6,7 and 8 in the front crotch also. In photo **14** we are laying in pole number 5. Photo **15** shows poles 1, 2, 3, 4, 5, 6, 7 and 8 all properly laid in the front crotch and position correctly.

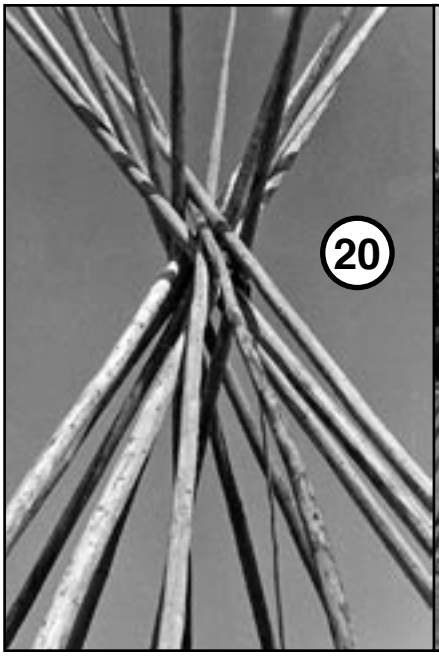
Now, before laying in poles 9, 10 and 11, go around to the back of the tipi and look up at the cluster of poles. See **16**. You will notice the opening outlined in black and white dots in **16**. This is the back crotch. Lay poles 9,10 and 11 in the back crotch. Notice in **4** that you do not place a pole in the position marked **L**, between number 10 and 11 poles. This is for the lift pole. In **17** and **18** I am laying in pole number 9. Pole number 11 is being laid in place in photo **19**. Note the space to my left where the



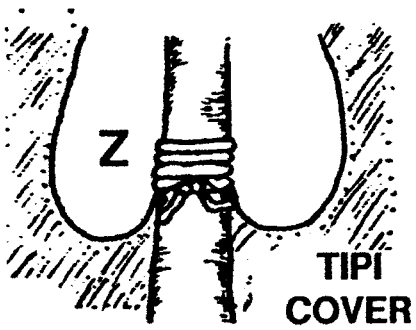


Lift Pole will be placed. Once poles 9, 10 and 11 are in, the cluster should look like photo **20** when looking at the pole cluster from the back of the tipi.

Now see **21**. Take the long rope and wrap it around the cluster of poles. Walk clockwise around the tipi. Keep the rope taut but do not pull so hard as to shift any of the poles off the ground. Continue around the tipi 4 times whipping and snapping the rope up into tight coils around the cluster of poles. When you have finished wrapping the rope around 4 times in this manner, bring it over the north pole and let it hang free toward the ground.



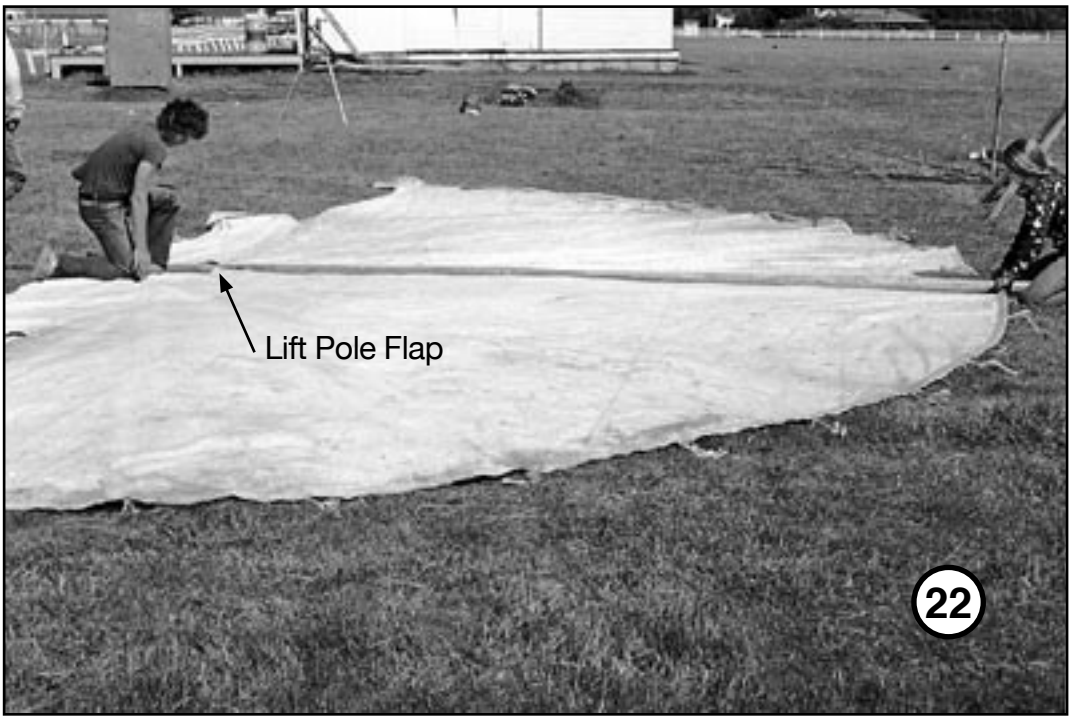
PUTTING ON THE TIPI COVER: Now take the pole you have chosen for the lift pole and lay it on the outstretched tipi cover in the same place you laid the north and south poles earlier. See illustration **1**. In **22**, I am positioning the lift pole directly on top of *the lift pole flap*. At the bottom center edge of the tipi cover extend the butt of the lift pole off the tipi cover about 4 inches. Using a 2'6" piece of small rope, run the rope through the loop in the lift pole flap. Now have one person hold the bottom edge of the tipi cover tightly against the tipi lift pole with 4 inches of tipi pole extending beyond the edge of the canvas as just explained. Now the other person at the lift pole flap pulls the canvas gently but steadily to stretch the canvas flat against the pole. Now using the rope that has been put through the lift pole flap slot bind the lift pole tightly to the pole. See **Z** in illustration **1** and also in the illustration at right. See photo **22**.



PLEASE NOTE: It is imperative that you bind the lift pole flap very tightly to the lift pole. If your tipi slips down from its original tie point at any phase of your tipi set-up process then the tipi will not fit perfectly. If it slips as much as 2 or 3 inches or more you will have wrinkles in the back and that will not come out. Therefore we suggest you do one of three things:

1. Mark on your lift pole with a heavy black or red line just above the top of the lift pole flat. Do this after you have tied it down tightly to the lift pole. Now you will be able to look up at the tie point from the ground and see if the tipi cover has slipped down the lift pole.

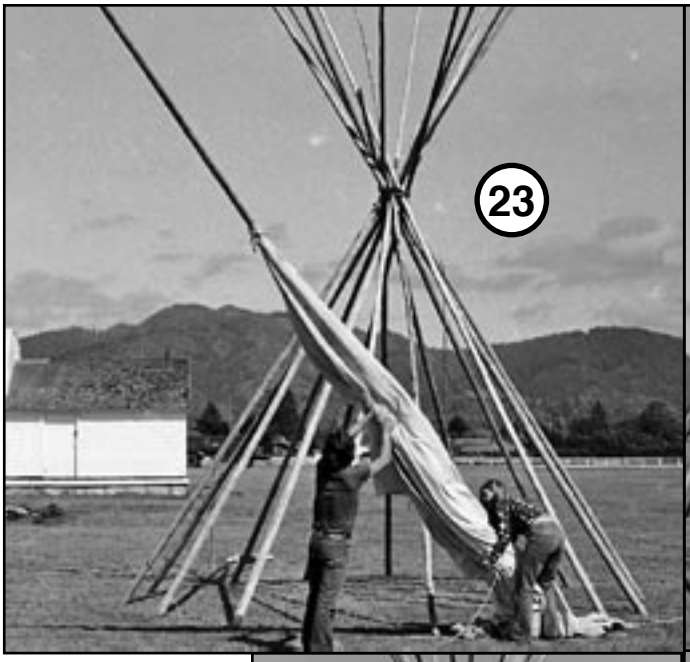
2. With a sharp knife, notch out a grove around your lift pole at the top of the lift pole flap and run the top coil of rope into this notch as you bind the lift pole flap to the lift pole. If done well, one coil of the rope will seat down into this grove and your lift pole flap will not slip. Therefore the tipi cover will not slide down the lift pole.

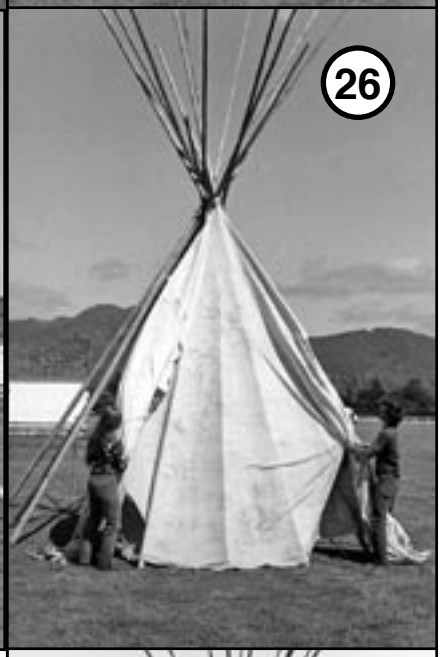


3. For absolute assurance, hammer a small, ¾" or 1", tack through the lift pole flap at the rope loop and into the lift pole. This may seem like you are ruining your tipi but you are not. The lift pole flat is four layers thick and this small hole will not weaken it at all or encourage a tear that enlarges over time. First bind the lift pole flap down as explained before. The tack is an additional aid. The reason why securing the lift pole flap to the lift pole is so important is because of the sheer weight of the tipi cover itself. An 18' tipi weighs 60 pounds for instance. We highly recommend using a tack with the 22 or 26 ft. tipi because of their excessive weight. The moment the tipi cover is spread over the poles all stress is relieved from the tack.

Now tie a "smoke flap line" to each of the smoke flaps at the bottom of the Cheyenne extension. See **W** in **1**. Use a piece of small cord about 14 ft. long for each smoke flap. Use the peg loop provided for the smoke flap line in the corner of the flap at **W**. These lines will then be tied to a stake in front of the tipi as in photograph **40**. Now, with the tipi cover still on the ground, fold each side of the canvas in towards the lift pole until the tipi is one long bundle laying along-side the lift pole. See the appearance of the tipi cover and lift pole in photo **23**.

With the heavier tipis, or if you are raising the tipi by yourself, we suggest some additional support techniques. Using short pieces of rope or strips of cloth (a belt will do), bind the tipi cover to the lift pole in two additional places. Use a slip-knot of some sort and leave a long enough tail that you can reach it and release it from the ground. Now grip the canvas very tightly against the lift pole and raise the entire bundle in the air as in **23**. It is very important not to let the weight of the tipi cover "hang" from the lift pole flap where you have bound it to the lift pole. Place the butt of the lift pole at **L** in **4**, and slowly lower it into position in the back crotch. See **23**, **24** and **25**. When you are lowering the lift pole into the back crotch, the back crotch should look like **20**. Twist the lift pole so that the tipi canvas is on the backside or outside of the lift pole.



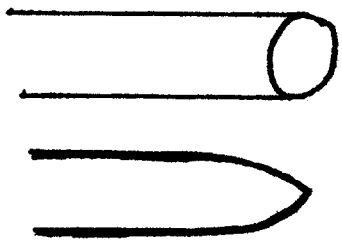


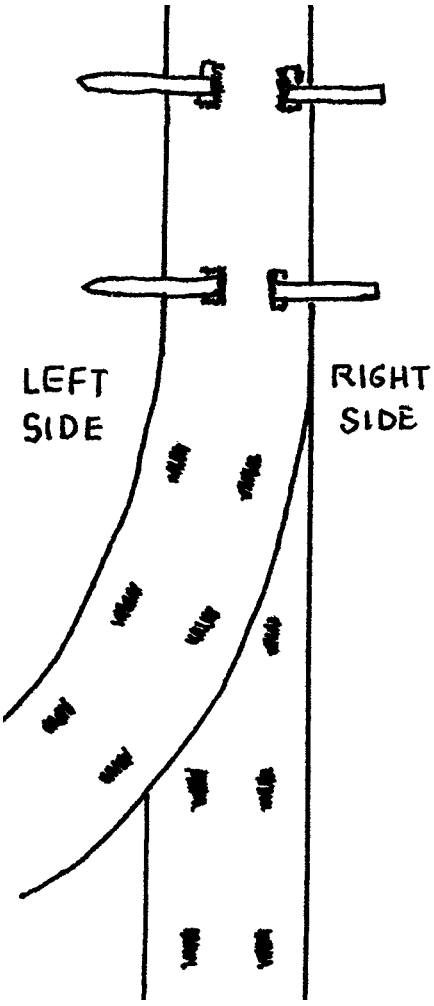
Spread the cover around the poles and bring it together between the door pole and the number 1 pole. It helps to billow the canvas as you might a sail. This helps "float" the canvas around the poles rather than jerking and pulling it across the surface of the tipi poles themselves. See **26**, **27**, **28**.

When you have brought the tipi halves together at the front, then go inside and tie the short smoke tie tapes together. They are at the top of the pinning flaps - **Y** in **1**. Tie them together as shown in **29**. You will need a short step ladder or equivalent to reach the ties.

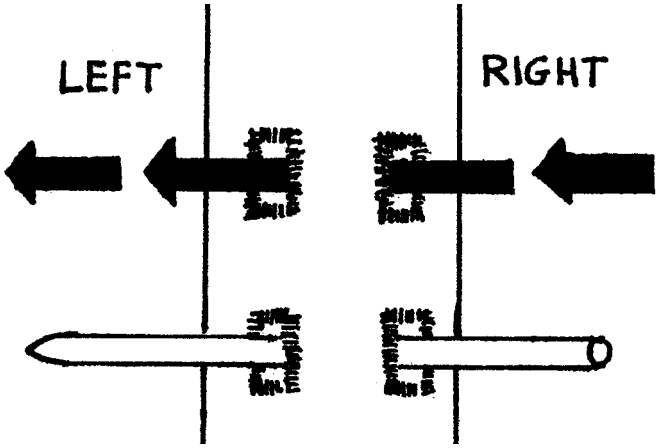
PREPARING YOUR LACING PINS AND PINNING YOUR TIPI TOGETHER

Lacing pins should be ½" in diameter and 14" long each. You will need to sharpen one end of each lacing pin. The pointed end makes it much easier to work the lacing pin through the four button holes at each lacing pin location. Do not put a super sharp point on the end of the pin. A sharp point could potentially pierce the tipi cover fabric if you accidentally poked the fabric with the pin. For this reason, blunt the end of the sharpened end just slightly. See the illustration here on the right.

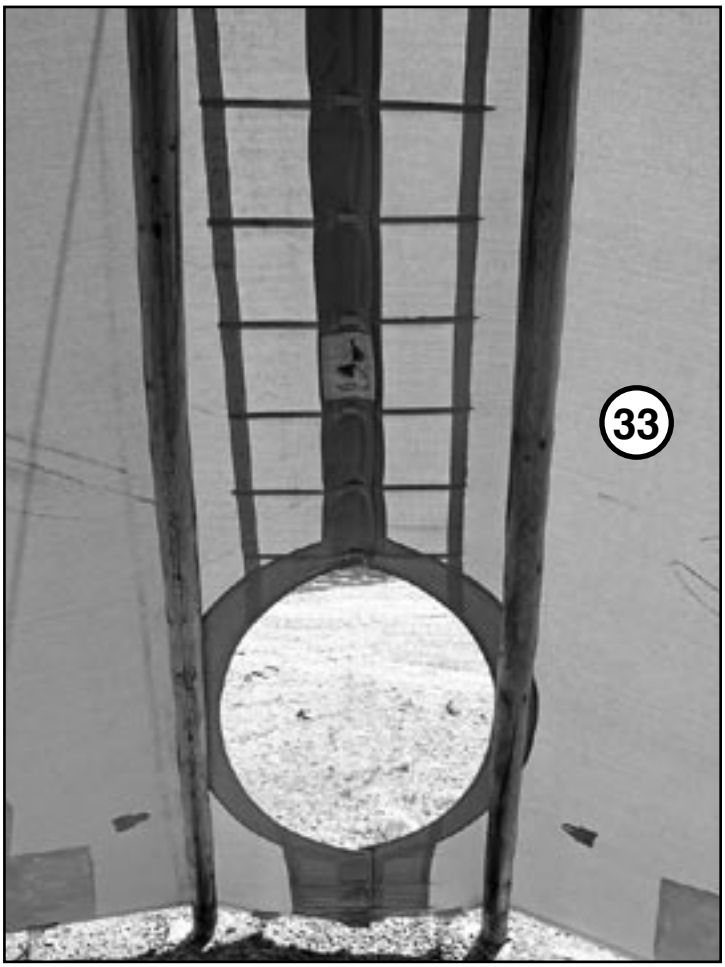




Note, <u>when standing outside the tipi, the left Pinning Flat should go over on top of the right Pinning Flap</u>. Put the lacing pin through the button holes going from right to left as shown in the illustration. It is very helpful to first prepare each button hole - while the tipi cover is on the ground - by putting a pin in it and widening the hole. Work the pin in a circular motion four or five times to stretch the hole a little bit. It is best to twist or "screw" the pin as you maneuver it through he two holes on the right and then out the two holes on the left. There are two holes on each side because the two pining facing are on top of each other in order to bind them together securely. Begin at the top of the pining facing just under the smoke flaps as shown in photo **29** and **30**. For lacing the pinning facing together properly, see photos **30**, **31** and **32**.



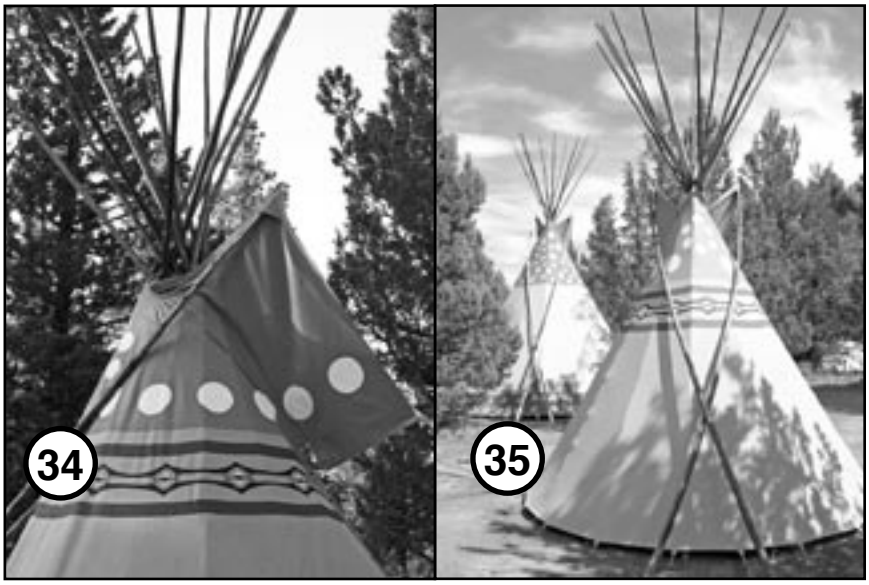
Once the pinning flaps are laced together you are ready to adjust the tipi cover and stake it down. First, move the number 1 pole so that it runs along side the door hole as in **33**. If the tipi cover is very wrinkled all around the sides and it is 6” or more above the ground in most places, then move all the poles *inside* about 6”. To do this, twist the pole back-and-forth and push it upwards as you move it inside, toward the center of the tipi.



Note: Do not try to move the tripod poles very much. A few inches is the most you should ever move them if you move them at all. Moving the tipi poles in some will allow you to pull the wrinkles out of the canvas and give the cover a uniform appearance. If you have too much canvas near the ground, then simply move some of the poles to the outside a few inches. At this point you should not be trying to get the tipi cover super tight. Just get all the major wrinkles out by adjusting your poles in and out.

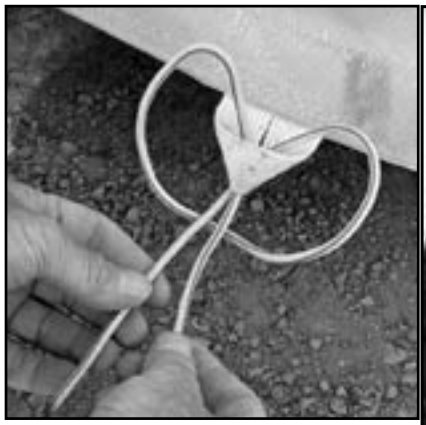
Now you are essentially ready to stake your tipi down. But before you do, there are two things that you need to check. First, go inside the tipi and check the way the cover looks for uniformity. It is OK at this point to have a few wrinkles but they should be essentially the same on both sides of the tipi. Mirror images so to speak, If you see one side that looks basically smooth although limp and the other side has long, deep wrinkles or one side is 6 inches or more higher than the other side, then an adjustment needs to be made. The usual causes are uneven ground, three or four poles sinking particularly deep into the ground, incorrect ground plan measurements or one of your tripod poles slipped during the set-up process and is shorter than the other two. Also be sure that the door hole opening is between the door pole and the #1 pole. Ideally, the cover should have no wrinkles but be draped loosely and uniformly around the poles. Now be sure that none of your poles are tight against the canvas. Move your poles so that they are about 4 to 6 inches inside of where you think their final position will be. This is strictly an “eyeball” affair. At this point, notice that the canvas will be a little tight across your three tripod poles and may even be a little high on them also. That is OK. Do not move the tripod poles in. We are essentially going to move all the other poles out to meet them in the final finishing stage of the set up. What you are looking for now is a uniform draping of the tipi cover.

PREPARING YOUR SMOKE FLAP POLES Now go back to the two tipi poles that you set aside for use as smoke flap poles. You will need to cut them off so that they are two feet longer than the size of your tipi. For example, for an 18 ft. tipi, the smoke pole length needs to be 20 ft. long, for a 20 ft. tipi, they need to be 22 ft. long etc. Whatever amount you need to cut off should be cut from the small end of the pole. The cut end should be rounded and smoothed so that it is not abrasive to the canvas in the smoke flap pocket. Now, place the two smoke flap poles in the smoke flap pockets and cross their butts behind the tipi as in **34** and **35**. The ends that go into the smoke flap pockets should be very blunt. The butts of the smoke poles should be 2 to 3 ft. from the edge of the tipi. See **35**. Do not put a lot of pressure on the smoke flaps just yet. Just support them enough to take any major wrinkles out of the smoke flaps themselves.

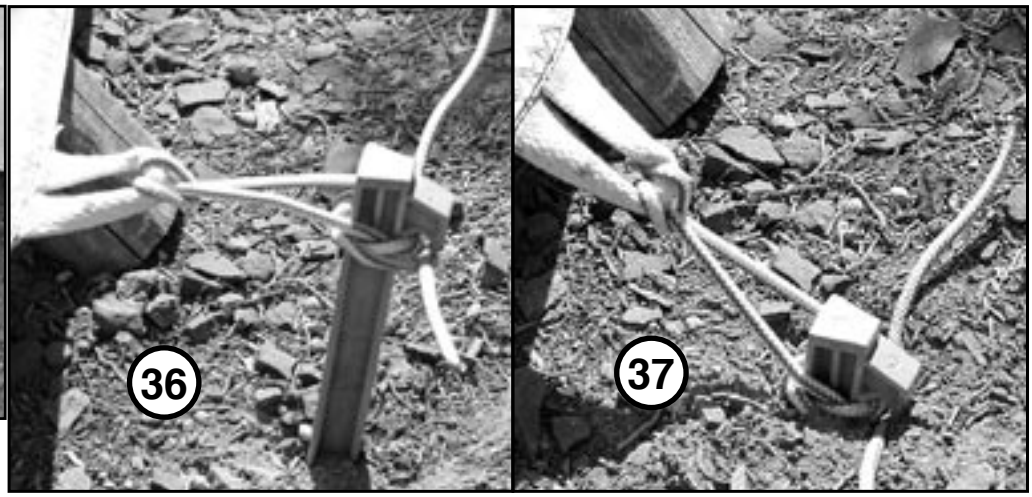


If you purchased tent stakes from us then you have received a small coil of cord with a green stripe running through it. Count the number of peg loops on your tipi cover and cut this cord into 30 inch lengths, one length for each peg loop (It is best to melt each end of the cut cord to prevent fraying.) Tie the 30" pieces to each peg loop as is shown in the photo below. NEVER PUT YOUR TENT STAKES DIRECTLY THROUGH THE TIPI PEG LOOP. If your tipi is securely staked down, the tipi will withstand very strong winds.

Now stake the tipi down. To do this, pull the peg loop *down and out away from the poles.* Pull *out* as hard as you can. Position your tie stake about 4" from the peg loop. Drive the stake in the ground *about half way in* and tie the cord to the stake. See photo **36**. When the cord is taut hammer the stake all the way into the ground. See **37**.Start your staking at the front of the tipi and go towards the back side, doing both sides at once. When your tipi is finished being set up the bottom edge of the tipi cover should be about 3" off the ground. Don't worry if your cover is even 4 to 6 inches away from your poles. See photo **38**. When the tipi is completely staked down, go inside and push the poles outward against the cover as hard as you can. Again, twist each pole and pull down on it as you push it out again the cover. See photo **39**. Attach the smoke flap lines to the pole in front of the tipi and pull them taut as in **40**. This stake should be 6 ft. tall and placed 6 ft. in front of the door hole. Now push the smoke poles up taut in the smoke flap pockets as in **40** and **36**. Your tipi should now look like illustration **39** and the color photo on the back cover of these set up instructions.



Looping the tie cord through the peg loop



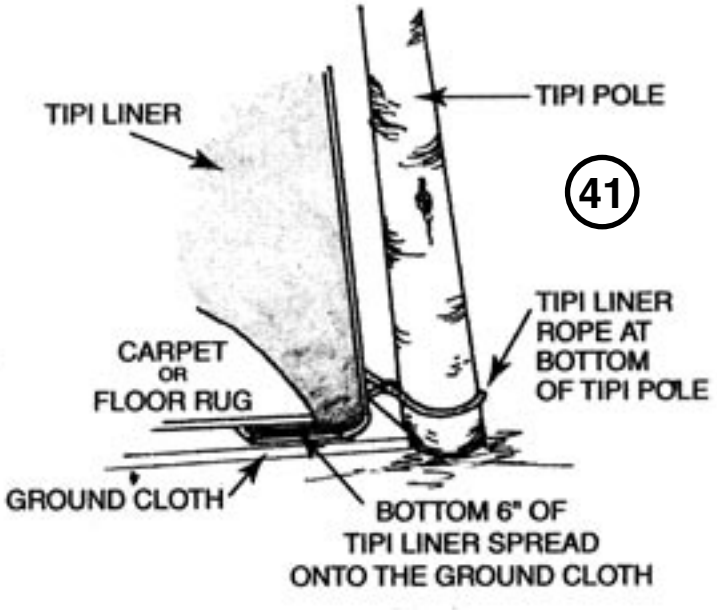
A properly staked down tipi before the tipi poles have been pushed out against the cover to their final positions. Note that the tipi is staked about 3" off the ground.

Final set up after the tipi poles have been pushed out to their final positions. Now look around the tipi and space the poles evenly but not necissarily equidistant.

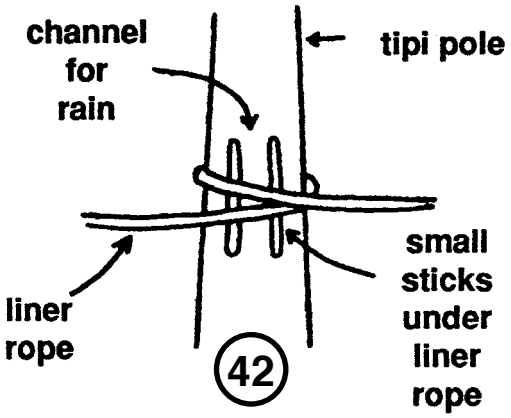
TROUBLE-SHOOTING: Most problems arise from an incorrectly positioned tripod. If your tipi is full of wrinkles at the top but has none at the bottom you have probably spread the tripod poles out too wide. It is also likely that your Lift Pole Flap has slid down the Lift Pole. Check your mark on the Lift Pole. Move all the tripod poles in about 4 to 6 inches and try again. If you have a lot of wrinkles at the bottom of the tipi but the top seems O.K. then move the tripod poles out a few inches. Remember! The tripod poles should only be moved if all else fails. Normally all the wrinkles can be easily straightened out by simply pulling on the tipi canvas and moving the other poles in and out a few inches. If your cover is wrinkle free except for the very top, your tipi poles may be too large at the point where they all cluster together.

NOMADICS TIPI LINER: Put your tipi liner up after your tipi cover is put up. Liners for all size tipis come in three sections. The liner for the 14' tipi has 3 sections of 3 panels each. The liner for a 16 ft. has 2 sections made up of 3 panels sewn together and one section made up of 4 panels. For an 18 ft. tipi all 3 sections are made up of 4 panels. A 20 ft. tipi has 2 sections of 4 panels and one section of 6 panels. The 22 ft. liner also has 2 sections of 4 panels and one section of 6 panels. A 26 ft. tipi has 3 sections, 6, 8, and 6.

HANGING THE TIPI LINER: Your 6 ft. high tipi liner has a row of liner ties at the top, at the 3 ft. mid point and 6" up from the bottom. You will put a continuous rope around each tipi pole at these three heights. Start by putting the bottom rope on first. Starting at the door pole, tie the rope as low on the poles as possible – as close to the ground as you can get it and run it around the entire tipi – i.e. to every pole. See illustration **41** and **43**. Note in **42** that the liner rope crosses on the inside side of the tipi pole.



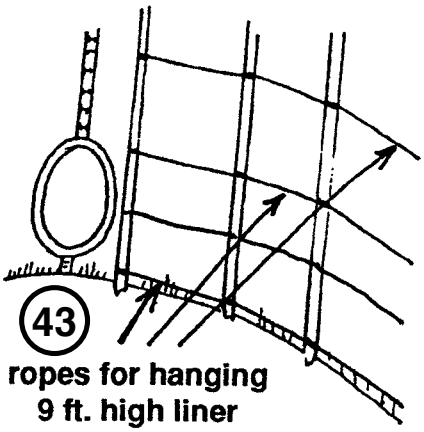
We suggest putting a ½" to ¾ " electrical staple in every other pole to keep the rope from sliding up or down. Nail the staple into the side of the pole. We do this on all three liner ropes. Pull the rope very taunt from pole to pole as you go around but do not pull so hard that you move the poles. Now you need to mark all your tipi poles at the proper height for your middle and top liner rope. To do this, first lay out a portion of your liner so that you can measure this distance from the bottom liner tie to the middle tie (approximately 30") and from the middle tie to the top tie (approximately 34"). Note that the bottom tie is approximately 6" up from the bottom of the tipi liner. This extra 6" of canvas is to provide a seal between the vertical liner "wall" and the tipi floor. The 6" fabric should go on top of your ground cloth vapor barrier and underneath your floor carpet or rugs. See **41** and **45**. Using your bottom liner rope as your measuring point, measure up each tipi pole the exact distance of the liner tie and put a mark on the pole. Keep your measuring tape flat against the pole when you measure. There is a reason for this. Since the tipi is a tilted cone, the angle of your liner will change as it goes around the tipi. This measuring system assures you that the liner will fit and hang properly.

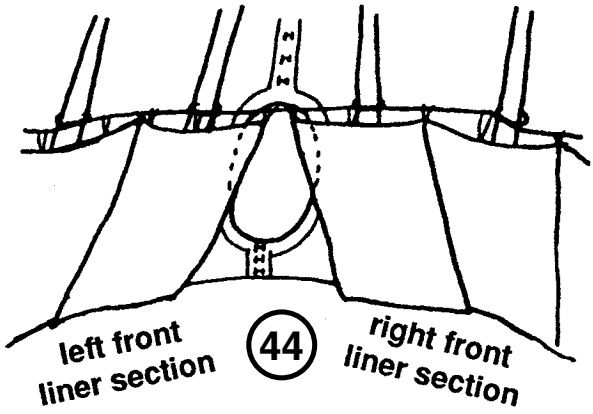


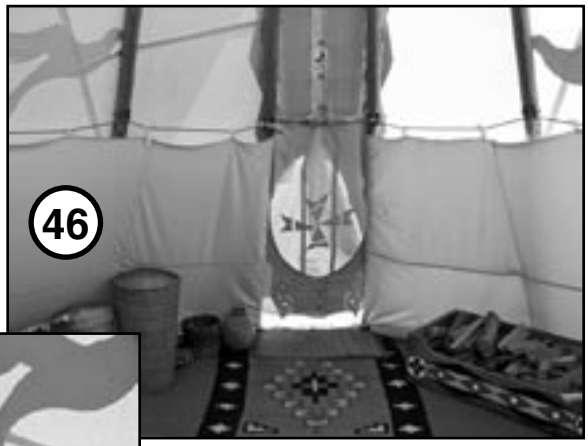
Now starting at the #1 pole and going to the #2 pole etc., tie the middle and top liner ropes around each pole in the same manner as you did with the bottom rope. End the middle rope at the door pole. Do not tie it across to the #1 pole. The top liner rope should be tied to every pole all the way around the tipi just as you did the bottom rope. If you have a 9 ft. liner, put the necessary top rope in now. See illustration **43**.

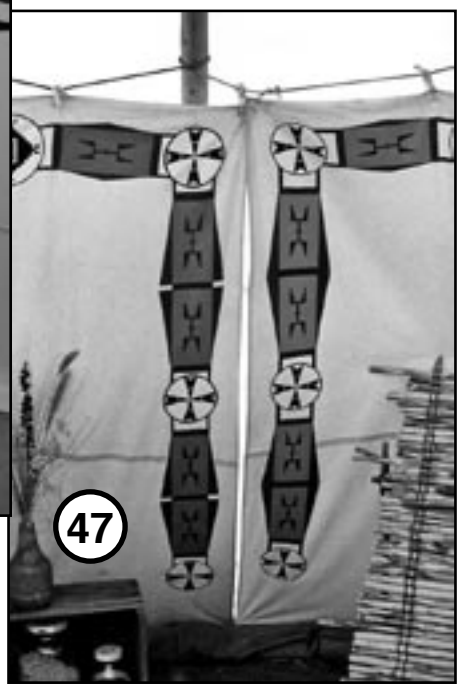
NOTE: Tie these ropes 4" above the marks that you made on the poles. This assures you that the liner ties will have adequate tension on them to keep the liner taunt and wrinkle free against the tipi poles. See **44, 45, 46** and **47.** Before hanging the liner, it is best to insert two small dowels (¼ " x 2"), small sticks or nails underneath the liner rope at every pole on the middle and top liner ropes. See **42**. This is not necessary for the bottom rope. When it rains, water will slowly begin to run down the underside of the tipi poles. If it hits a wood knot or rope or any obstruction, it will drip into the tipi. If there is nothing in its way, it will continue to run down the underside of the pole, underneath the little bridge, and on down to the ground behind the liner.

To begin hanging your liner, start with the middle section. This is the one that goes in the middle back of the tipi. If one of your three liner sections is bigger (longer) than the other two, then this is the section you begin with. Lay it down on the tipi floor and center it at the back middle with the bottom liner ties up against the bottom liner rope. Tie the bottom liner ties to the bottom rope starting in the very center at or very near to the lift pole. Moving outward from center, pull the bottom of the liner gently from tie to tie to keep the canvas smooth and wrinkle free. Do not tie the liner ties to the tipi poles even though some may align directly in front of a pole. When the bottom is finished, do the same process for the middle and top ties. When the back section is up, smooth out any wrinkles by sliding the ties outward on the rope. See **45**. Hang the remaining two sections in the same manner making sure that the edges of the liner sections are as close together as you can get them. See **47**.When you are finished, the left front liner section and the right front section should look similar to illustration **44** and **46**. Note that in **46** the liner ends have been wrapped around the poles in order to facilitate ease of entering and leaving the tipi when there is alot of constant traffic in and out. For complete instructions on weatherizing your tipi liner see the information on **SEALING THE TIPI LINER** on page 26.





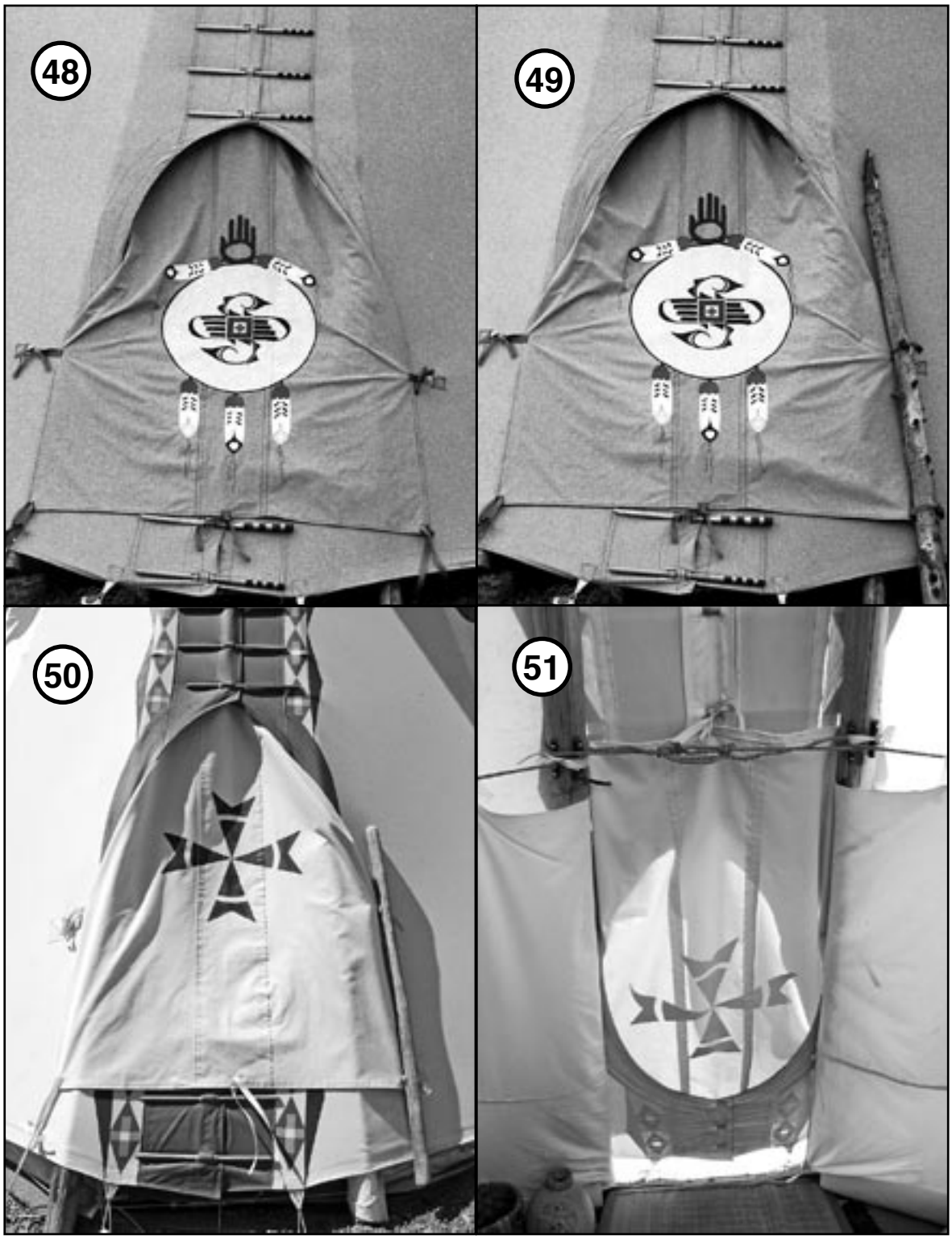


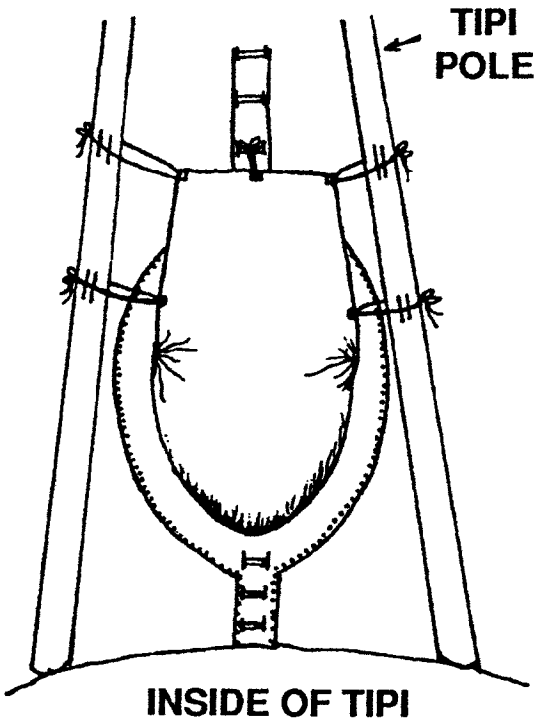


The back center section of your liner should look like this when properly hung. Notice that the top liner rope is higher than the liner ties.

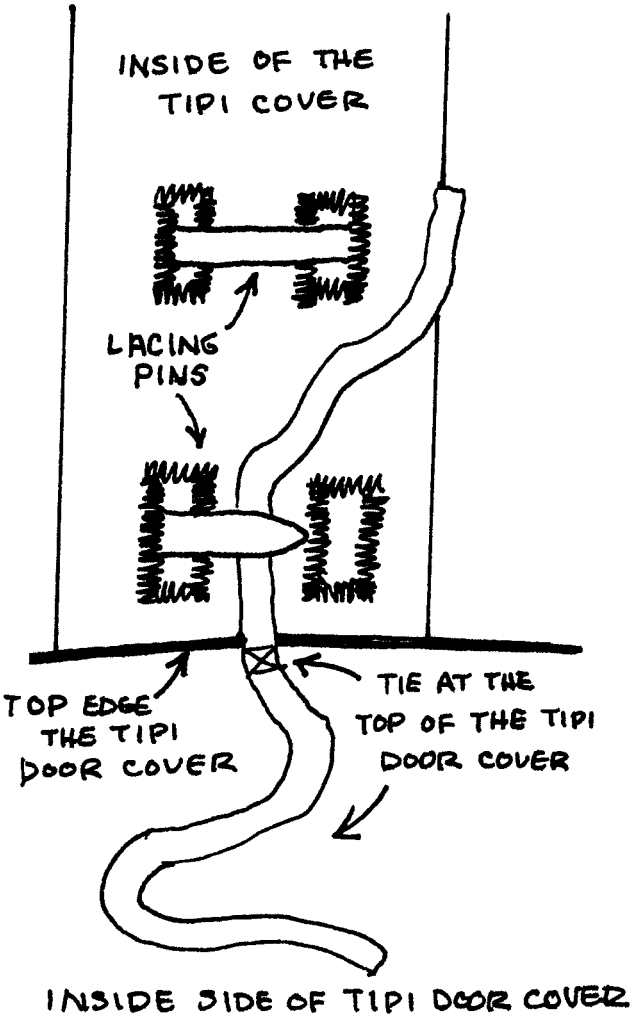
THE NOMADICS TIPI DOOR COVER

We designed this door cover after many experiences with deep snow, heavy rains, and coastal storms. The photographs here demonstrate how the door cover looks from the outside and inside of the tipi. The top of the door cover passes up *underneath* the top of the tipi door hole and is tied up *inside* the tipi as shown in the drawing at the right on page **19**. A shingle effect is created between the top of the door hole and the door cover. Any rain or melting snow that runs down the tipi cover to the top of the door hole will drop onto the door cover and continue on down to the ground. Notice that there are ties on each side of the door cover that correspond to the loops sewn onto the tipi cover itself. When the door cover is tied directly to the tipi in this way the door will remain secured to the tipi even in gale force winds. See Photo **48**.



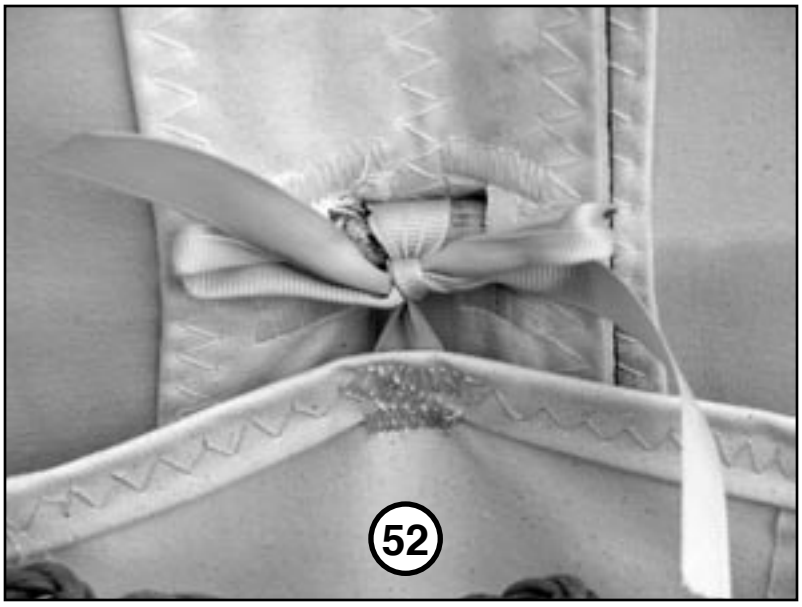


INSIDE OF TIPI



INSIDE SIDE OF TIPI DOOR COVER

The ties are also designed so that you may have either a right-hand or left-hand opening door. By tying a short stick to one side of the door cover a useful door handle is made. This helps keep animals from "nosing" their way into the tipi. Generally a right-hand door is best since the prevailing winds are from the left to right when the tipi is facing east. See **49** and **50**.



Top Door Cover Tie. Inside of tipi.

On the inside of the tipi the door cover is tied to the tipi poles that are on each side of the door hole. The door cover tie at the top of the door cover is tied to the backside of a lacing pin above the door. See the illustrations and photo 51 and 52 This is usually the second lacing pin above the door hole. It is easiest to gently pull this lacing pin out until the pointed end just reaches the gap in between the two sets of button holes. Slip one strand of the top tipi door cover tie behind the lacing pin and push the lacing pin back to the correct position. Now tie the top door tie and snug the top of the door cover up to the lacign pin. See the illustration above and **52**. Whenever door ties are tied around tipi poles be sure to place the two small sticks under the tie to allow rain to run down the pole. See illustration **42**.

USING YOUR SMOKE FLAPS

The smoke flaps are essential in eliminating smoke from the tipi. If properly used there will be no smoke in your tipi. By creating a partial vacuum between the two smoke flaps smoke is encouraged to rise to the top of the tipi cone. As smoke reaches the top of this partial vacuum between the two smoke flaps the smoke is quickly sucked out of the tipi. It is essential that the smoke flaps *always be angled down wind*. The following photographs assume that your tipi door hole is facing east. The prevailing winds are usually from the west and south. It is always best to face the tipi to the east because of these prevailing west winds.

Photograph **53** shows the smoke flaps set for a west wind. Since the tip door is facing east the wind is blowing from directly behind the tipi. Your smoke flaps will probably be in this position most of the time. Notice that the right smoke flap (as you look at the photo) is angled out to the right just a bit. This compensates for any occasional change of wind direction from the south or southwest.

Notice that the smoke flap lines help keep the smoke flaps taut, by securing them to a stake in front of the tipi. See **40**

With the smoke flaps set in this position your smoke flap poles will appear as in photo **54** as seen from behind the tipi. Notice that the poles are crossed and that they have a slight bow in them as they pass around the tipi. By using small, limber poles for your smoke flap poles you can keep a gentle tension on the smoke flap.

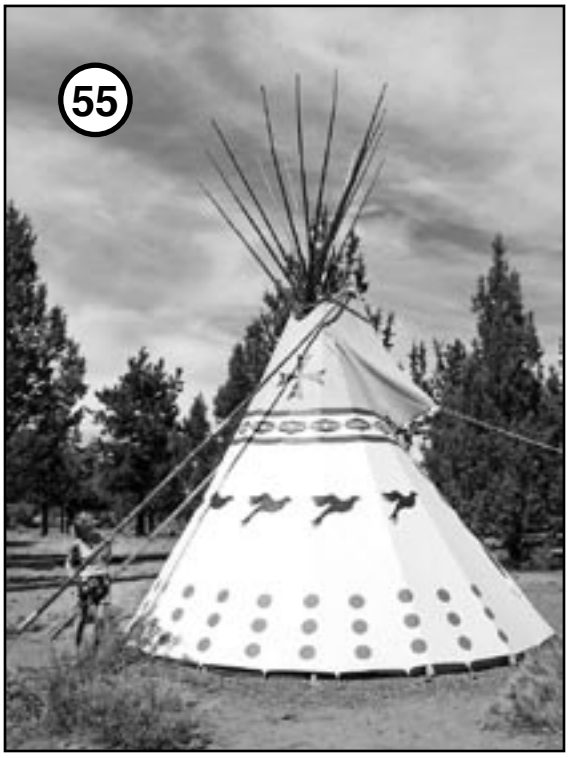
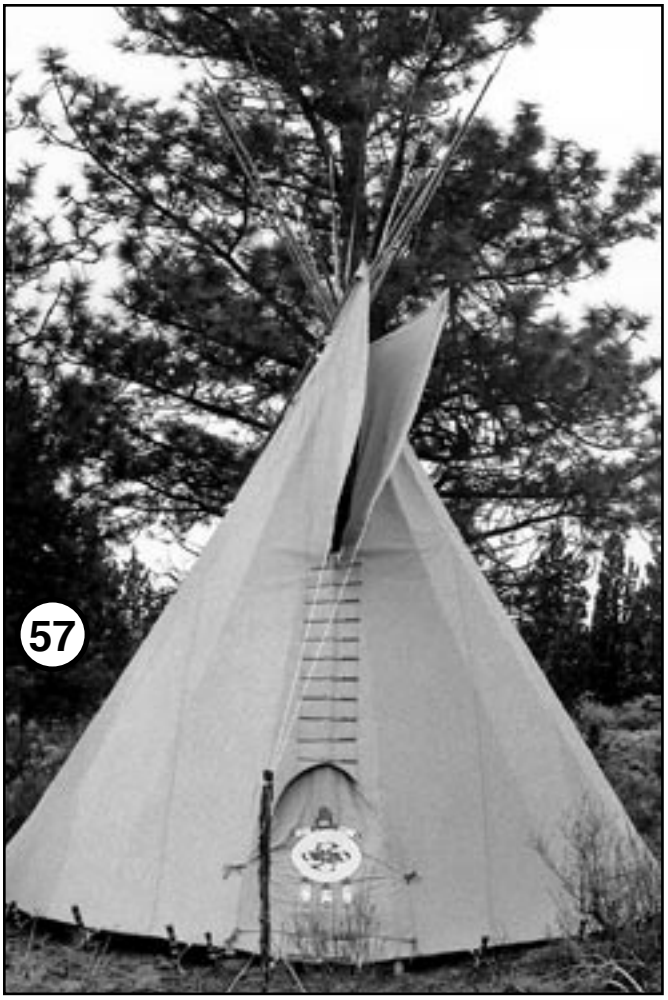
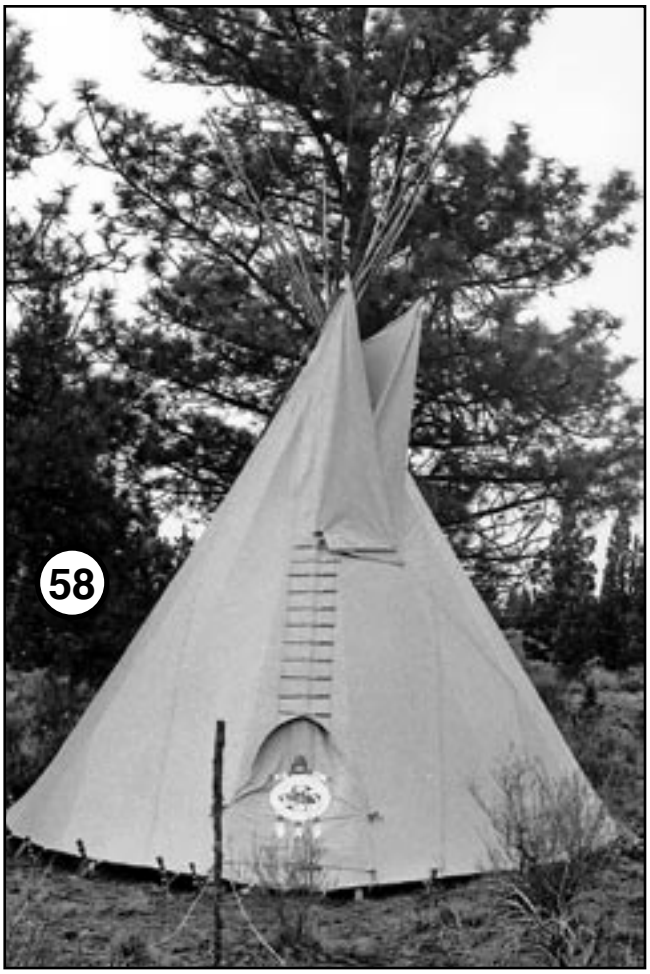


Photo **55** shows how to change the setting of the smoke flaps. By moving the butt of the smoke pole the smoke flap will change direction. Do not allow the pole to slip out of the smoke flap pocket when maneuvering the smoke flap.

By moving the smoke poles to the positions in **56** the smoke flaps will be set for a south or southwest wind. This is a very common setting. Notice that the butts of the smoke flap poles are only about 2 ft. from the edge of the tipi.



It is important that the butts of the smoke poles be about 2 ft. from the tipi. If the smoke poles are too long and the pole butts cannot be brought near the tipi edge then they will not fit properly in the smoke flaps and wrinkles will result in the smoke flaps. Your smoke flaps should always be kept taut as in **53** and **57**. When the poles are positioned as in **56** the smoke flaps are set as in photo **57**. These flaps are now in the proper position for a wind blowing from the southwest. This photo gives you a good view of how the smoke flaps eliminate smoke from the tipi. As the wind blows across the opening of the smoke flaps air is drawn out from between the two flaps. This creates a relative absence of air in this area. Air from the inside the tipi then moves upward to fill the space between the flaps and is then sucked on out through the smoke flaps. This is the primary way in which smoke is eliminated from the tipi.

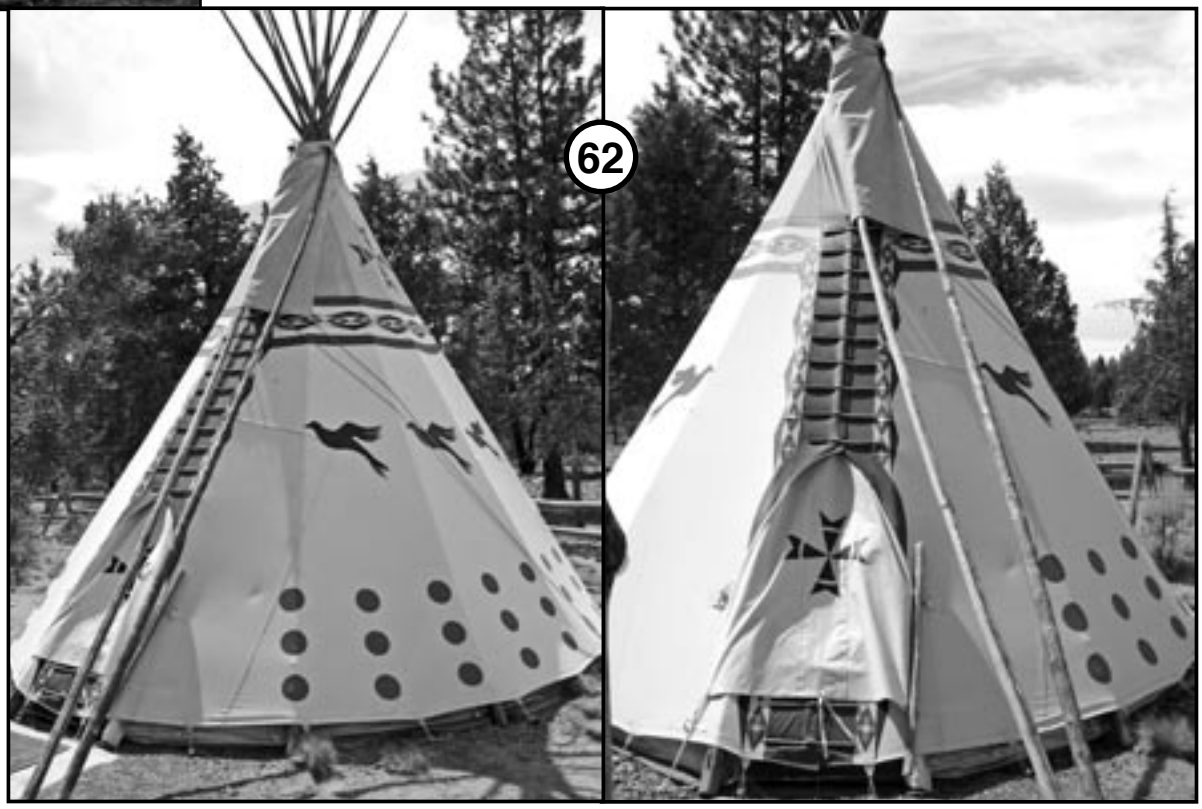


This also demonstrates how the smoke flaps prevent rain from coming in the smoke hole. Assume rain is coming from the left to right in photo **57**. The left hand smoke flaps is simply angled over the smoke hole to whatever extent is necessary to prevent rain from coming in the smoke hole. The right hand smoke flap is then angled farther to the right to maintain an adequate opening for smoke to go out. Most major storms come from the southwest. If winds get too strong you may want to tie the smoke flap lines along the north side of the tipi to prevent the lower portion of the smoke flaps from being whipped and torn by strong winds. See photo **58**. Notice that an adequate smoke hole opening still remains. For added security during storms tie your tripod rope to a long stake driven deep into the ground just behind the fire pit. See **59**. This is the same 45 ft. rope that you used to wrap around your tipi poles to hold them together. This is also a good idea if you are

leaving your tipi for a few days. If you live in coastal areas or in areas that receive strong blasting wind storms then a few additional guy wires are a good idea. See **60**. Tie ½" rope around the cluster of poles and stake it to the ground 10 or 20 ft from the tipi facing into the wind direction.

If your tipi is staked down well there is virtually no chance of it being blown over. The anchor rope and the guy wires are necessary for extreme circumstances only.

Occasionally the wind may shift and blow from the east. This is the only time smoke elimination can be a problem. Photo **61** shows how to set your smoke flaps for an east wind. The smoke flap lines are tied around the opposite sides of the tipi. As the wind blows directed into the flaps it is directled upward across the top of the crossed flaps. This creates the partial vacuum necessary for good smoke elimination from the lodge. If you are leaving home for a few days you will want to close the tipi completely as in photo **62**. Walk your smoke poles around to the front of the tipi and lay them on top of the smoke flaps. Again, do not let the smoke pole slip out of the smoke flap pocket as you are maneuvering the poles. Notice that the left flap goes on top of the right flap – just in case a south wind kicks up while you are gone. Notice the smoke flap lines tied to a tent stake on the right side of the tipi.



EXTREME WEATHER

Rain in moderate amounts is very easy to deal with. If you use your smoke flaps properly as described in the Using Smoke Flaps section then rain will not fall through the smoke hole. However, rain will hit the tipi poles that extend above the tipi cover. Rain will run down the poles to the rope that binds the poles together at the top of the tipi. The rain will soak through the coils of rope and emerge again on the poles just below the rope. From here it begins its journey down the underside of the tipi poles. Unless this tiny bead of water is interrupted by a rough spot on the tipi poles, or if excessively strong, gusty winds are shaking the tipi pole, this little flow will continue down the entire length of the pole, pass behind the liner, and disappear into the ground at the bottom of the pole. It is for this reason that your tipi poles need to be smooth. If, when rain begins, some of the rain trickles stop at some points along the poles and begin to drip into the tipi momentarily, reach up and touch them with your finger or a stick. Now guide the trickle slowly on down the pole to its destination behind the liner. Once established during the first few minutes of a rain shower the water will flow continuously down the underside of the pole for the duration of the rainfall. Note once again diagram **48** in the set up instructions. This stick bridge is essential to ensure that the rain does not drip from you liner rope.

If however you are in an extremely wet climate and would prefer to avoid rain situations altogether, then you will want to make a “rain cap” for your tipi. I saw this many years ago in an obscure little book by an 18th century mountain man named Thomas Earl Seaton. He had drawn a sketch of what he called a “Missouri Rain Cap” since he first saw it while spending time with the Missouri Indians. The cap is simply an umbrella secured over the tips of the tipi poles. See drawing above.

INSTRUCTIONS FOR PUTTING ON THE RAIN CAP: Before putting your tipi up you will need to be sure that the length of your tipi poles will properly accommodate the rain cap. The tipi poles need to be four feet longer than the stated size of your tipi in order for the rain cap to fit over the top of the poles properly. For example, if you have an 18 ft. tipi you will want to cut your poles off so that they are 22 ft. long. When cutting your poles off to accommodate the proper length for the rain cap be sure to cut off whatever is necessary from the smaller end of the poles. Do not cut the larger end of your tipi poles.

There are two different methods to fit the rain cap on top of the poles. You may build a simple frame like an umbrella using small flexible branches or twigs like those of young willow shoots, then attach the rain cap canvas to the frame as the photo **63** shows. Small flexible irrigation pipe can also be used to make an umbrella frame. The rain cap may also simply be placed over the extending poles by draping the canvas over and on top of the extending poles above the tipi. In either case the two smoke flap poles can be used to carefully hoist the rain cap up over the poles and position it over all the tips of the extending poles.

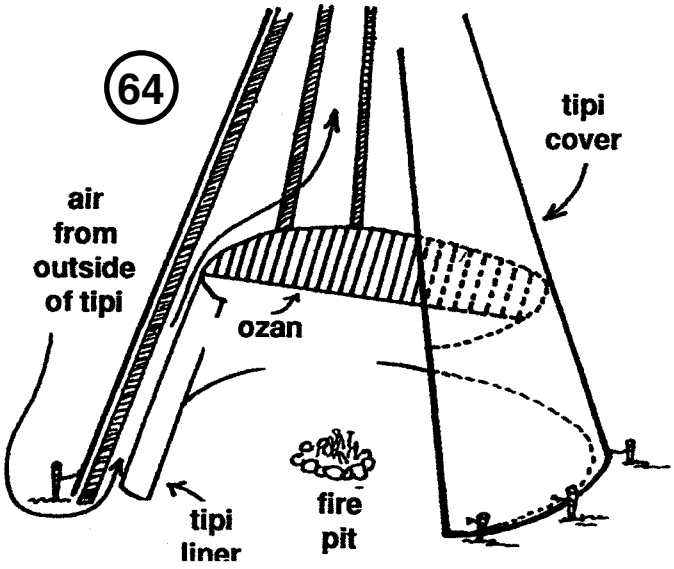
Note: Before you hoist the rain cap into place you must tie at least four long “guy wires” from the edges of the rain cap so that you can secure the cap from strong winds that might blow it off the top of the poles. These guy wires should be rope or wire and should be about 30 ft. long each. Put a stake in the ground to tie them to so they will be secure. Do not stake a guy line in a place that would prevent you from maneuvering your smoke flap poles when necessary. Tightening the lines before an expected storm would always be a good idea.

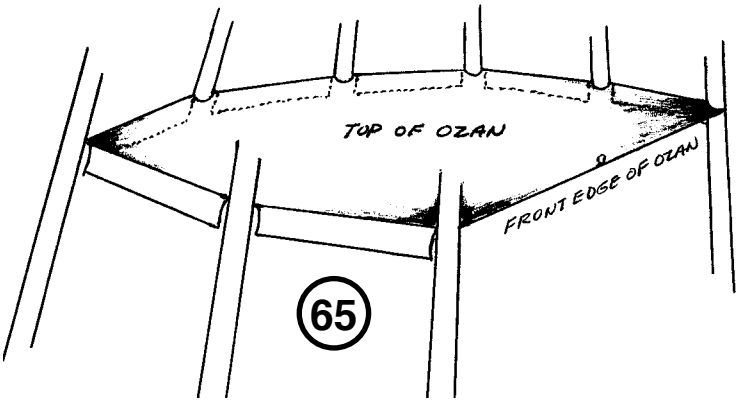
The reason for the umbrella construction is to shed large quantities of rain. In climates with a lot of rain all at one time the rain cap, if simply draped over the poles, might begin to “puddle” a large amount of water and place excessive strain on the canvas itself either tearing the fabric or possibly creating a drip point to the fabric. A tightened rain cap can prevent this. Put on the tipi rain cap only after the tipi is completely erected. See photo **63**.

It is essential that air flows under the edge of the tipi cover, up behind the tipi liner, and on, up and out the smoke flap hole. See the drawing below showing the air flow. If deep snow piles up around the tipi you must clear away snow from the bottom to re-establish your air flow. If big drifts continue, build a snow fence around your tipi on the snow side.

PUTTING UP THE TIPI OZAN

The ozan goes in the back middle of the tipi at the height of the top of the tipi liner. It extends about 1⁄4 to 1/3 of the way into the tipi space at this height. It should not extend so far into the tipi that it traps smoke underneath it from the fire. See illustration **64** and Photo **66**. Begin your set-up by tying the middle or center of the arc of the ozan to the liner rope at the very center back of the tipi. You will notice that there is about 6” of extra material beyond the ozan tie. Do not be concerned with this fabric at this point. Continue to tie the ozan to the liner rope around the back circumference of the tipi. When you are finished, slide the ozan ties along the liner rope as needed to assure a smooth, snug fit. The extra 6” of fabric is provided to create a shingle-like roof effect over

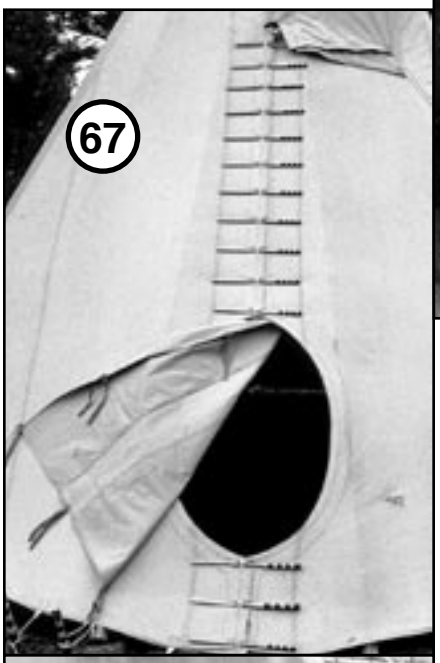


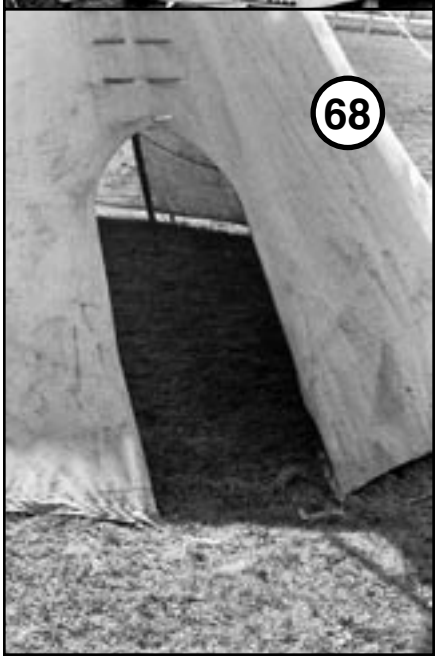


the top of the tipi liner. See illustratioin **65**. To customize this ozan function, you now need to slit or cut this 6” flap right at the center of each tipi pole. The ozan is constructed in such a way that this slit will not weaken the integrity of the ozan fabric. After you cut the slits, then drape the 6” flap sections over the top of the liner rope and down behind the tipi liner. See illustration **65**. Now go to the long straight front edge of the ozan. You will notice a tie loop in the center of the edge. Run a long rope from one side of the tipi to the other side of the tipi through this tie loop. Attach the rope to any tipi pole that seems to best accommodate this support line. Your tie points on the tipi poles must be high enough to create a slight backward angle to facilitate the flow of small amounts of rain water back to and over the top of the tipi liner. When finished, your ozan should look like photo **66**.

THE OPEN FIRE

The fire pit should be located underneath the smoke hole. This location is not the very center of the tipi. It is more toward the door hole of the tipi. To locate the correct spot for your fire pit or stove, stand in the front middle of your tipi and look up through the smoke hole. Move until you are standing directly beneath the center of the smoke hole opening. This is the center of your fire pit. It is a good idea to line your fire pit with fire bricks or stone. It will radiate more heat after the evening fire goes out and help prevent the fire pit from burning itself a larger area over time. Stumps around the fire pit are handy counters and pot stands. The open fire must be tended constantly. The smaller size wood you use the more flame your fire will have and thus

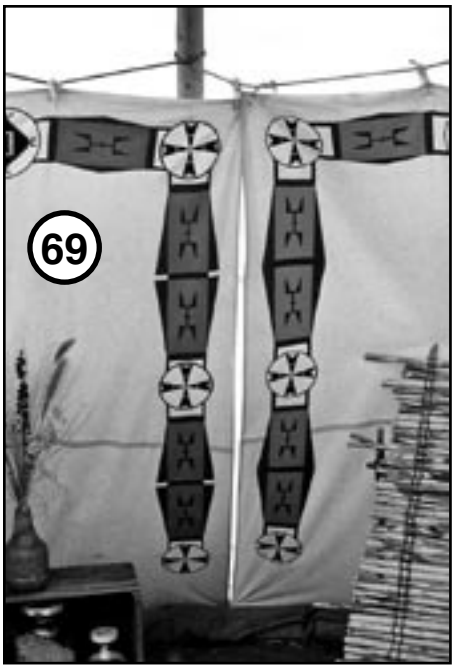




the less smoke it will give off. Pine is one of the smokiest woods. Green wood will smoke more than dry wood. So will rotten wood. Although it will vary by year and location, you will probably need at least 3 cords of wood each winter. We stash our wood just to the left of the door as you walk into the tipi. Cooking is more convenient if you use a large sturdy grill over the fire. Bread making and baking can be done in an enclosed Dutch Oven over the fire. Eliminating smoke from the fire is partly facilitated by keeping a small, hot fire that is all flames. This is best accomplished by using small pieces of wood (1" to 2" in diameter) and selecting the correct wood to burn as mentioned above. But the primary way to eliminate smoke from the lodge is accomplished in 3 different ways: 1. Use of the smoke flaps (explained earlier), 2. Maintaining constant air flow under the tipi cover, behind the liner, and up and out the top of the tipi. See the illustration **41** and **64**. A third and very useful way of encouraging the rise of smoke is to use your door hole as an air vent. By simply pulling the door cover back just a few inches, air will flow toward the fire, rise with the warm air and help carry smoke upward. Photo **67** has much too large an opening to serve as a door flew. An opening to 4" to 6" is sufficient.

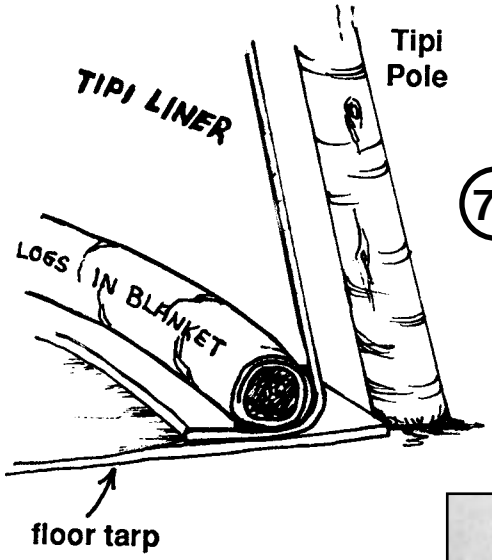
During the summer you may want to remove the lacing pins from beneath the door hole and pull back each side. This makes a more convenient door opening when snow and mud are not a problem, See photo **68**.

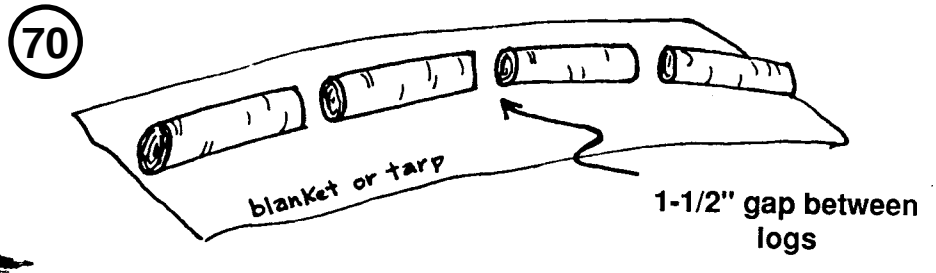
SEALING THE TIPI LINER



There are a few extra things that you can do to add to the insulation value of your tipi liner. If you aren't going to be moving your tipi too frequently then sewing your liner sections together will make your liner one solid insulator. Just sew the edges together by hand after you have put the liner up. Sewing ½" wide Velcro on each side works very well also. Photograph **69** shows this junction where two liner section meet.

It is very important to seal the area where the liner meets the tipi floor. As explained on page **16** and **17** of the Set-up Instructions, the bottom of the liner has 6" extra fabric intended to be used to make this seal. Be sure that this seal is a permanent, snug "weather-stripping". We have discovered a method that works well. We place log rounds end-to-end on an old blanket or tarp and roll the logs up inside the blanket. The logs are only 3" to 4" in diameter and are about 14" long each. They are placed about 1½" apart on the blanket. This long wooden snake is then placed down on top of the joint where the floor tarp meets the bottom of the liner. See illustration **70** and photo **71**. Blue jean pants legs make great "log tubes" for this purpose. NOTE: Be sure your floor tarp





does not act as a "gutter" that collects rain that drips off the bottom edge of the tipi cover. Check to be sure the floor tarp does not extend outside the tipi onto the ground. Also, if you do not close your smoke flaps properly and tightly when you leave the tipi, a sudden rain can create a small puddle on your tarp floor just behind your fire pit. This can cause rugs and beds to be wet upon your return. See the section on the proper use of your smoke flaps. Specifically **62**, page **22**.

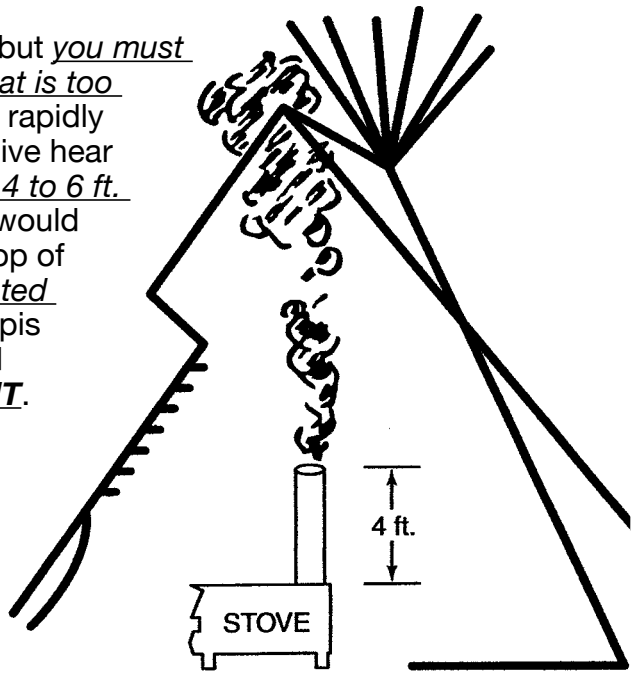
AT HOME IN THE TIPI

Our kitchen is to the right of the door as you enter the tipi. A series of custom made shelves make a nice kitchen pantry. For keeping fruits and vegetables from freezing in the winter we bury a storage cooler near the door hole. With the top of the cooler at ground level (or with an inch or two of insulation on top in very cold climates) the cooler used the earth's warmth to keep veggies from freezing. Water and other liquids can be stored in this manner also. Likewise, in summer the buried cooler will keep foods and liquids cool. Grains etc. Should be kept in glass jars. If you leave a small stash of grains and loose cloth in a cubby hold somewhere you can usually discourage any small rodents from raiding other food supplies or clothing.

For the tipi floor we use a layering effect. On the ground we put a waterproof tarp as a vapor barrier. Next we put down a large piece of carpet that is cut to fit the entire tipi. A 3 ft. diameter hole is then cut in the tarp and carpet for the fire and fire ring. Then we put our nice indian rugs down on the carpet as the final layer. This "layer" system offers excellent insulation. Putting this layer system on top of a bed of small rock or gravel makes an excellent floor foundation.

PAINTING DESIGNS: Either oils or acrylics are fine for paining designs we recommend exterior house paint for your tipi cover. To achieve our "antique wash" look use semi transparent stains. To create the ultimate look for panted liner designs use artists oil base paint from the tube, to achieve this dee, rich look in your colors you must first paint your entire design in gesso. This is an artists preparation material that is similar to a very thing plaster. It can be purchased at any art store. A beautiful stained glass effect can be achieved by painting designs on the inside of the tipi cover above the tipi liner. For these designs you must use inks. Use only high quality artists drawing ink. Ink designs will not soak through the canvas.

WOOD STOVES may be desirable in very cold climates but *you must not run the smoke stack up between the smoke flaps. That is too much heat near the canvas*. If you do this the canvas will rapidly dry out, become brittle and may ignite due to the excessive hear near the top of the tipi. *Your smoke stack should only be 4 to 6 ft. high above the stove*. This way the smoke goes up as it would from an open fire and is cool by the time it reaches the top of the tipi. *All smoke stack pipes should be triple wall insulated pipe that is approved by your local building codes*. Our tipis are designed for a two food diameter open fire at ground level. ***USE COMMON SENSE AND GOOD JUDGEMENT***. Do not build an excessively large fire and do not leave it unattended.



MOLD AND MILDEW PROBLEMS

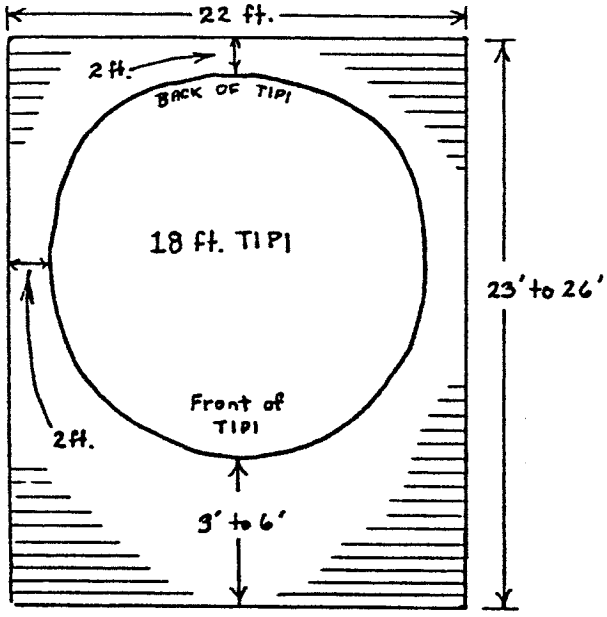
With the exception of our 15 oz. untreated canvas, all of our fabrics are treated with chemical solutions that are specifically designed to resist mold and mildew growth. Although highly effective, they can only "resist" the inevitable. You cannot make any fabric mold and mildew proof. If their habitat is provided, mold and mildew will show up. It will even grow on plastic and metal as well as on cotton. Our mold and mildew resistant treatments are excellent and are effective in all but excessive conditions of rain or high humidity. Mold and Mildew are organisms that feed off of microorganisms associated with warm moisture. They do not "eat" canvas. Although rare, sometimes a tipi cover will get excessively moldy after only being up a few months. This can occasionally happen in the South and Southeastern U.S., the Pacific Northwest Coast and Hawaii.

What to do: First dry the canvas out completely. This will kill the mold and mildew. Next you will want to scrub out the stains left by the pigments in the organisms. We do not recommend using any regular cleaning product that contain chlorine. Chorine not only can potentially weaken the fabric but it can remove the weatherization finishes that we have put on the canvas for ultravilolet radiation protection and longevity. Some folks tell us that Lysol or similar products do a good job. We suggest a product called NAS-12 Cleaning Solution from National Allergy Supply, Inc. (phone: 800-522-1448). This product is safe, non-toxic, biodegradable and odorless. One quart is $8.00, one gallon is $19.00. If NAS-12 does not do the cleaning sufficiently then the product you will need is called "GLEE". It can be purchased from the manufacturer, L.H. Taylor Inc. The phone is 301-990-6376 in Germantown, Maryland. To check into the product you can take a look at their website. www.atlintl.com. "GLEE" is and oxidant similar in performance to that of pure clorine but is a sodium hypercloride instead. It does not damage the structural integrity of the cotton fibers.

If your tipi has becomes moldy in less than a year, then you are in an excessively wet and humid climate. For this situation we recommend that you treat your tipi with National Allergy supplys' Mildew Protective coating. The product is called No More Mildew, it is non-toxic and effective for up to two years. 1⁄2 gallon is $10, 1 gallon is $20. (ph: 800-522-1448 / www.natlallergy.com)

BUILDING A TIPI DECK

The deck should be larger than the tipi. This illustration uses an 18 ft. tipi as an example. The deck should be 2 ft. larger than the tipi on the sides and at the back of the tipi. You should allow a 3 to 6 ft. "front porch" in front of the door hole.

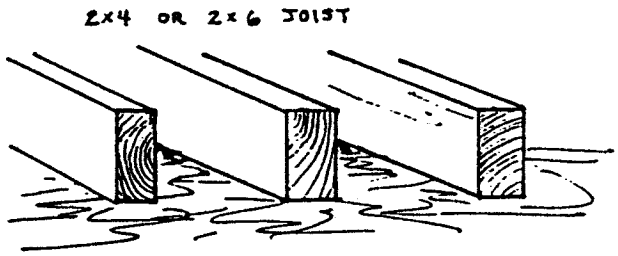


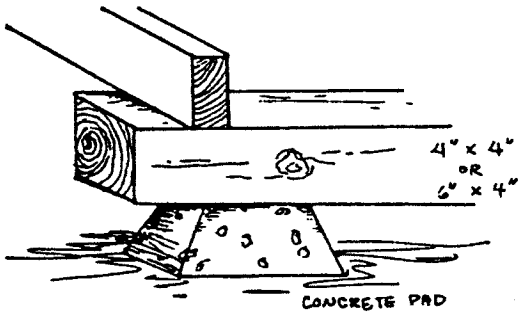
In dry climates pressure treated 2x4 or 2x6 can be used as floor joist and be placed directly on the ground. In damp climates or for permanent locations it is best to elevate the joist using concrete blocks or concrete pads. The supporting beams under the joist should be 4x4 or 4x6 depending upon the distance between concrete supports. Consult a builder for suggestions on joist size and joist spacing ratios.

Cover the joist with plywood or 1" or 2" decking. Decking thickness depends upon the distance between joists.

The deck must slope outward from the middle so that rain will run off of the deck. Only a slight outward slope is necessary. The surface of the deck should slope down 1/8" for every 1 ft. of horizontal distance.

To prevent the tipi poles from sliding on the deck, place wooden stop-blocks against each pole. Nail the clock into the deck one the final pole position has been established.

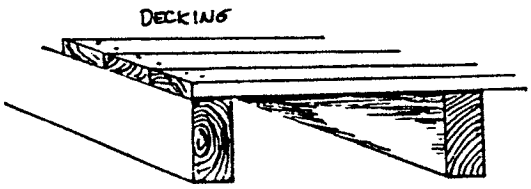


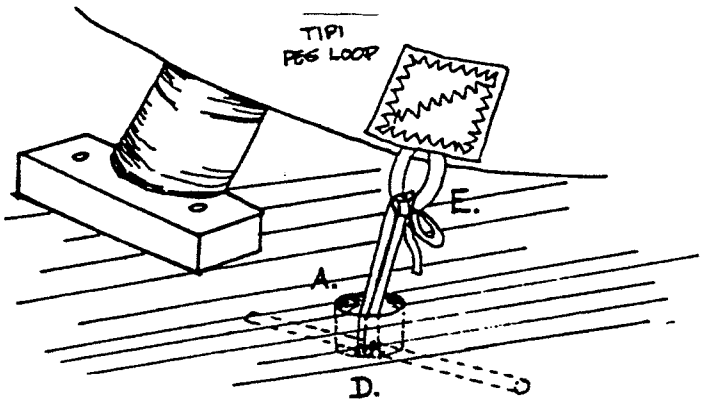


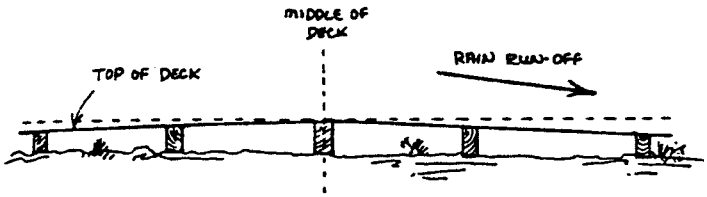
To Secure The Tipi To The Deck:

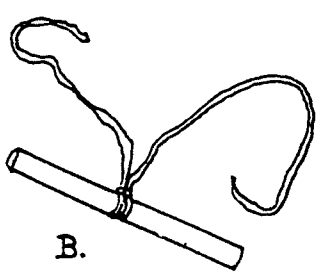
Drill a 3⁄4” hole in the deck about 3” from the bottom of the tipi cover at each peg loop position.
Tie a 20” piece of cord in the middle of a 6” long dowel or metal rod.
Holding onto the cord, drop the dowel down through the hole.
Pull up on the cord securing the dowel firmly across the underneath side of the decking.
Tie the cord tauntly to the peg loop securing the tipi to the deck.

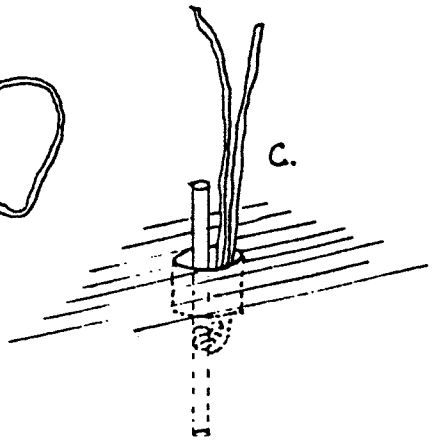
A metal eyelet on a lag screw works very well as a peg loop tie stake also.

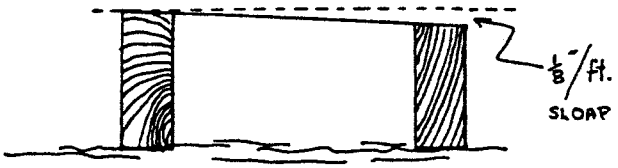


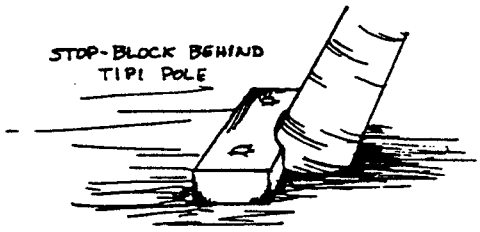


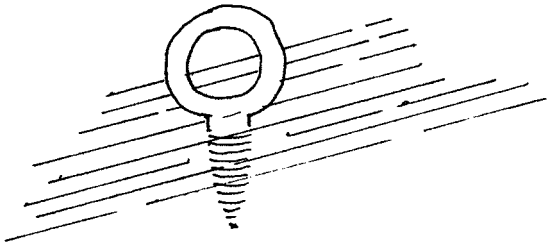












NOMADICS TIPI MAKERS
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Bend, Oregon 97701
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