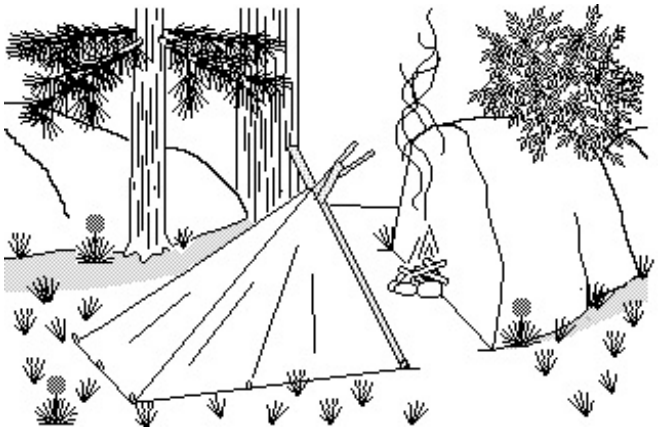
TARP SHELTERS

Several years ago on a trip we made to practice our wilderness survival skills, our friend Brian noted that, 'One way or the other, *you have to do the work*.' In other words, we *will* need a shelter, so either we will have to 'work' to gather materials and build a shelter once we get to our wilderness camp, or we will have to 'work' to carry something in for our shelter. It would be 'foolish,' (as in the 'foolish virgins' who didn't bring what they needed to get the job done), to go into the wilderness without a plan for our shelter. And realistically, many places, such as the dryer desert regions, don't have enough materials to build an adequate shelter, much less several shelters for a group Since these realizations we have started carrying tarps and experimenting with tarp shelters.

Tents are also an option. But tents are heavier. And one thing we really like about tarp shelters, is that we can have a fire in connection with them —as opposed to leaving the 'warmth' of a fire and having to go off to sleep in a 'cold' tent.

In theory , for the sake of personal responsibility and just in case one were to get separated from the group, everyone should carry all their own other equipment, including their own tarp. The exception to this rule being very young children.

Therefore, after a lot of experimentation, I would recommend a light weight 6 ft. by 8 ft. 'poly tarp' for most people. These are available rather inexpensively from outlets such as Harbor Freight. Note that this sizing is what they call the 'cut size,' so the actually size would be about 5 ft 6 in by 7 ft 6 in. If you happen to be taller, or if you have a child that is too young to carry their own gear camping with you, you may choose to carry the next size larger tarp which is an 8 ft by 10 ft, (again, the actual size is roughly 7.5 ft by 9.5 ft). Try to get tarps in 'earth-tone' colors rather than the typical blue.



One of these sized tarps, together with some cordage to tie it up, only weighs about a pound, and doesn't take up that much space in a pack. So we have found tarp shelters, together with a 8 to 12 inch / 20 to 30 centimeter thick 'debris bed,' to be less 'work,' and a more sure shelter option than having to build something completely from natural materials.

Many other bushcrafters prefer a 10 by 10 coated nylon or polyester tarps. These are considerably more expensive. But they are also large enough to shelter several people.

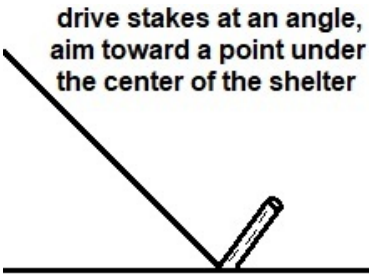
There are many ways to rig up a tarp shelter. Please do some research, as each situation is different, and the more ideas you have about how to set up your shelter the better. Here, we will share only three. Two of these we have used quite a bit. The third, and first one described here, we have only found out about more recently, but we like it's possibilities.

• **A Totally Enclosed One-Tarp Shelter**

Below are instruction for a one-tarp shelter that can be totally enclosed. To make this shelter, you will need a 'grommet' in the center of one of the long sides of the tarp. If there is not a grommet already there, one can easily be put in with a 'grommet kit' from the local hardware store. You will also need five stakes. These stakes can probably be cut and carved on location, but you may choose to make them ahead of time and carry them with you. You will also need either an overhanging branch that is in just the right spot, or a pole that is at least half as long as the longer side of the tarp. Which, depending on the size tarp you are using, may be about walking stick length.

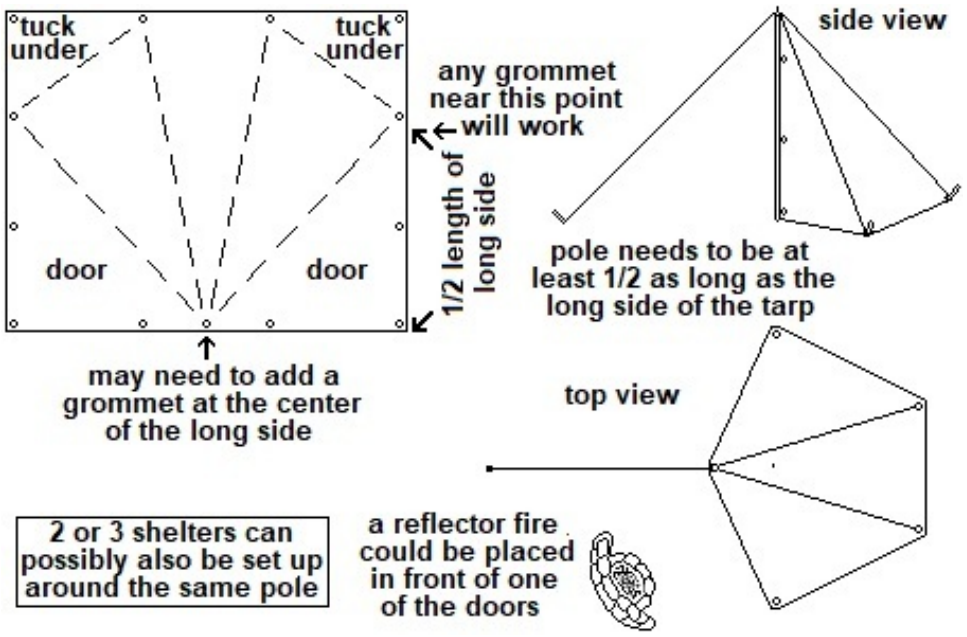
(1) Begin setting this shelter up by driving two stakes into the ground at the two grommets that are nearest to the center of the back long edge of the tarp.

You can drive stakes through the grommets, but they may be damaged by doing this. A safer way would be to tie small loops of cordage through the grommets and drive the stakes through these loops. Drive all the stakes at an angle in toward the center of the shelter. If you drive them in straight up and down, the cordage or tarp will slip off.



(2) Then, using the grommet in the center of the front long edge of the tarp, attach the tarp to the pole at the point where the corners of the long edge of the tarp the will be right at ground level. Use some cordage and a stake to tie out the pole and hold it upright.

(3) Then drive two more stakes at the grommets on each of the sides, so the vertical front edge of the 'door' lines up with the pole. Try to minimize sagging, and make everything as snug and tight as possible. Finally tuck the extra tarp material of the back



corners of the tarp, under and inside the shelter, and bring in ‘debris,’ (dried grass, leaves, pine needles, whatever is available) for bedding.

Depending on the situation, and the size of the group, two or three tarps could possibly be set up using the same pole. A reflector fire could also be placed in front of one of the open doors for additional heat.

• An Open-Faced Tarp Wicki-up

One efficient and versatile tarp shelter is patterned after the open-faced wicki-up. Gather at least four 8 to 12 foot / 3 to 4 meter long poles. Look for thickets of small trees, and collect those that are already dead. Cutting a living tree not only kills a tree, but sap would drip on you and your things inside the shelter. Choose the two shorter, stronger poles for the front of the shelter. Save the two longest poles for the back.

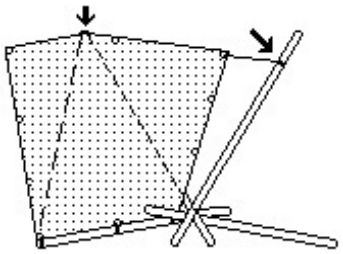
Below are directions for a 3 to 4 person open-faced tarp wicki-up using one 6' x 8' tarp, and one 8' x 10' tarp.

One rule when making tarp shelters is to make the frame to fit the tarps. Because this seems a bit backwards, we had to learn this the hard way. Hopefully you will learn from our mistakes. So, don’t just put up a frame, and try to get the tarps to fit on it somehow! This rule is especially important with this particular shelter.

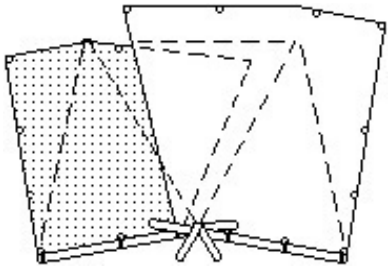
(1) Lay the two front poles together, and measure from the base of the poles up the length of the shorter, (or 6'), side of the 6' x 8' tarp. Just above this point, cross the poles and lash them together. Stand the poles up where you want the opening of the shelter to be. If possible, place the back of the shelter into the prevailing wind.

(2) Lean the front poles slightly into the shelter, and lay the two back poles roughly in position on top of them, but don’t lash them down yet.

(3) Tie the shorter 6' side, of the 6' x 8' tarp, onto the front pole that is opposite from the direction of the prevailing wind. Tie one corner as close to the ground as possible, then tie the middle and top corner of the tarp to the pole. This top corner should end up just below the place where the two front poles are lashed together.



(4) Adjust the position of the back pole on that side of the shelter so that its end is approximately at the middle of the back edge of the tarp. Place the other back pole in about this same position on the other side of the shelter. Then lash the two back poles to the front poles.



(5) Tie the back inside corner of the tarp over to the other back pole.

(6) Tie the short 8' side of the 8' x 10' tarp onto the other

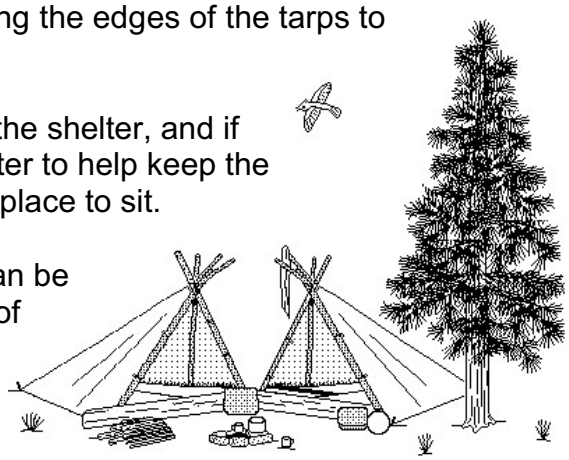
front pole. Again, begin by tying one corner of the tarp as close to the ground as possible, and work up. Since the 8' x 10' tarp is larger than the 6' x 8' tarp, it should go over the top of the shelter and cover the top edge of the 6' x 8' tarp.

(7) If they are available, add two or three additional poles to minimize the sagging of the tarps —this noticeably increases the space inside the shelter.

(8) Tuck the extra outside edges of both tarps inside the shelter, and if possible, place smooth, 'head' size stones in several places along the edges of the tarps to help keep them in place.

(9) Bring in debris to make a 'debris bed' inside the shelter, and if possible, place a log across the front of the shelter to help keep the debris in place. This log can also provide a nice place to sit.

With a reflector fire in front, this shelter can be quite warm. Also for larger groups, two or more of these shelters can be set up around a central fire. And extra tarps can be used to make doors or 'vestibules.'

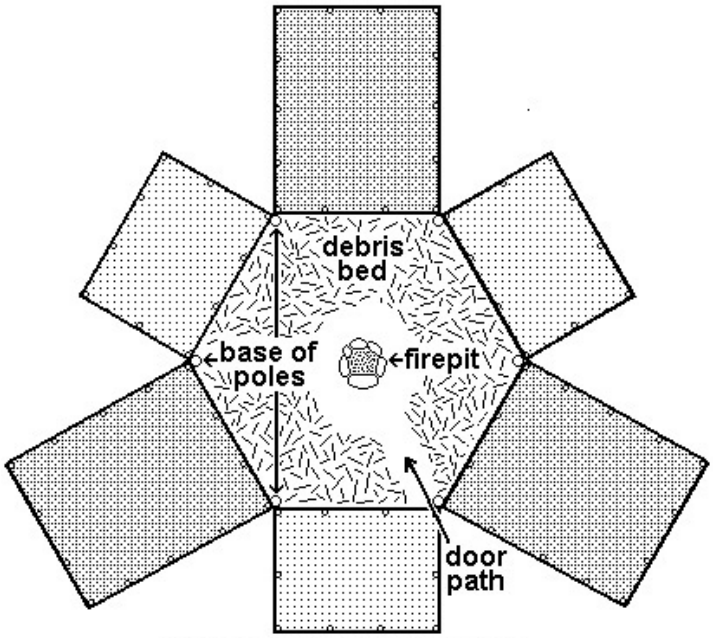


• **A Tarp Tipi**

With a good debris bed, and a small fire inside the shelter, a tarp tipi may be the warmest, most weather proof, and overall coziest shelter you can make —especially in cold or rainy weather. You will need: some cordage, four to seven tarps, and an equal number of 14 to 17 ft / 4.5 to 6 m poles. Look for thickets of small dead trees to gather the poles from, don't cut live trees unless absolutely necessary.

A four-tarp tipi with a fire inside will be rather cramped for four people, but it can be made to work. Shelters larger than seven tarps can also be made, but they will be harder to heat efficiently, and they may be more difficult to make weather-proof. A six tarp shelter laid out on a hexagonal floor plan seems to be about optimal.

Make the shelter frame to fit the tarps. This means the floor plan will be in the shape of a square, a pentagon, a hexagon or a heptagon, depending on the number of tarps being used. The lower ends of the



tarps laid out flat on ground to show floorplan layout

poles will go in the ‘corners,’ and the lower edges of the tarps will be straight and flat against the ground in-between the ends of the poles.

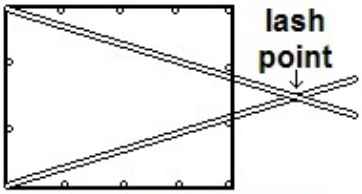
The instructions here are for a six tarp shelter using three 6 X 8 ft. tarps, and three 8 X 10 ft. tarps. It will house six to nine people.

(1) Begin by laying the tarps out on the ground in a hexagon shape. Notice that the 8 ft. side of both the 6 X 8 and the 8 X 10 ft. tarps are used to make the hexagon. The 6 X 8 ft. tarps are laid out so that one of the ‘longer,’ or 8 ft. sides will be along the ground at the edge of the shelter; and the 8 X 10 ft. tarps have one of the ‘shorter,’ or 8 ft sides making the lower edge of the shelter. This allows for the ‘longer,’ or 10 ft. length of the 8 X 10 ft. tarps to provide more coverage at the top of the shelter which will make the shelter both taller and more weather-proof.

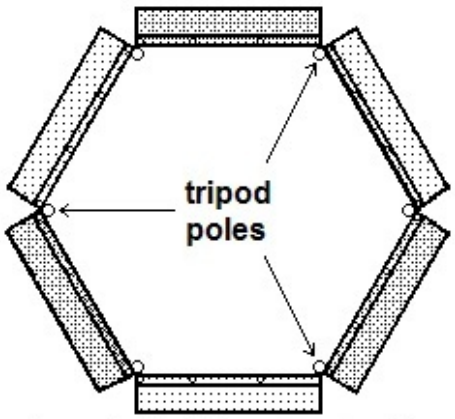
(2) Before you proceed, figure out where you are going to put the door —probably toward the East. Lay things out so that one of the smaller 6 X 8 tarps will be at the door.

(3) Overlap the corners grommets of the tarps where they come together at the ‘corners’ of the hexagon, and tie them together, except for the ‘door corner.’

(4) Choose the three strongest poles to make a tripod. Measure the poles on one of the 8 X 10 tarps, to determine the lash point so as to be sure to leave a smoke-hole, (see illustration). Before raising the frame, it is a good idea to fold the tarps to minimize the risk of them being stepped on and getting holes poked in them. Then raise the tripod and place the lower ends of the poles in every-other ‘corner’ of the hexagon. Lean the other three poles onto the tripod, placing their ends in the three empty ‘corners’ to finish the frame. Check the poles, and cut off any sharp branches that may poke holes in you or the tarps.



measure pole length on a 8 X 10 ft. tarp

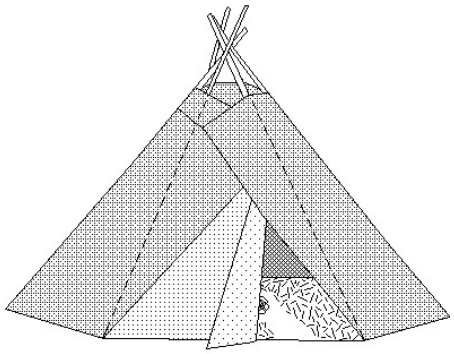


tarps folded to minimize the risk of being stepped on while setting up the frame

(5) Tie the corners of the tarps to the base of the poles as close to the ground as possible. And adjust the position of the poles so the tarps are snug and straight along the ground.

(5a) To allow for a door flap: instead of tying one of the corners of one of the 6 X 8 ft. tarps to the pole, tie a length of cordage to a grommets in the middle of the lower edge of that tarp, and run it along the ground across what will become the doorway, tying it to the pole instead of the tarp. (Be careful not to trip over this cord when going in or out of the door after the shelter is set up.) Tie the lower corner of the 8 X 10 tarp at this ‘corner’ directly to the pole.

(6) Raise the 6 X 8 ft. tarps, and tie them to each other and/or the poles to keep them in place. You may choose to fasten the top edge of the door tarp to the pole similar to what was done with the bottom edge. Once the 6 X 8 ft. tarps are all tied in position, raise the 8 X 10 ft tarps over the top of the 6 X 8 ft. tarps, and tie them in place. For the best weatherproofing, raise and tie the two 8 X 10 ft. tarps on either side of the door first, and the tarp at the back of the shelter last. If you didn't make your tripod too tall, the tops of the 8 X10 ft. tarps should cover the top edges of the 6 X 8 ft. tarps without leaving any gaps or 'window' holes.



(7) Bring in debris for 'debris beds' around the inside of the walls, and if desired, make a small fire-pit in the center.

These instructions may seem a bit complicated. But this shelter really comes together quite nicely. The different 'pieces' falling into their obvious places once you start raising the tarps. Even so, it is strongly recommend that you practice setting up one of these shelters before you really need it on a rainy evening with darkness rapidly coming on!

Frequently, the question gets asked about rain coming in the smoke hole. What we have found is that the fire creates an updraft with a drying effect which probably takes care of most of the raindrops. Also, since the smoke hole is directly over the fire-pit, drops that do get past this drying updraft, fall into the fire-pit area. So it is only the odd drop that falls into the sleeping area, and in our experience, this hasn't been a problem.

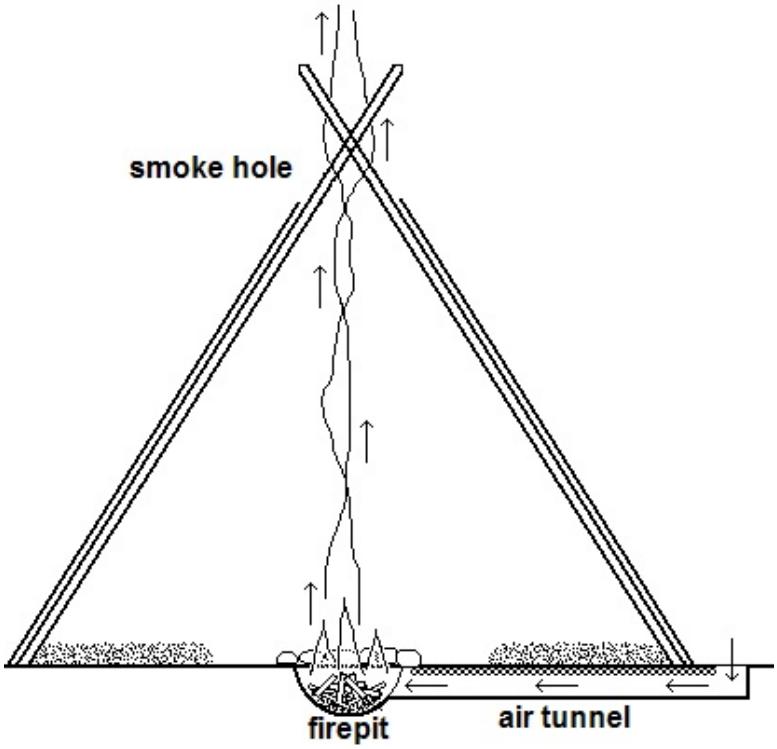
Dealing With Smoke Inside the Shelter —the Dakota Fire-Pit

For a fire to burn properly, it needs a good supply of fresh air. One of the results of insufficient oxygen will be lots of smoke. When a fire is built inside a shelter that can be 'sealed off' to prevent cold drafts, such as is possible with this tarp tipi, smoke can become a major problem.

This problem is actually threefold. Not only is there insufficient air coming in for the fire to burn well, but neither is there enough air flow to carry the smoke up and out of the shelter. What's more this would create a risk of carbon monoxide poisoning.

So if the lower edges of the tarps are sealed off against the ground all the way around the shelter, say with a small mound of dirt, and the door is closed, even with an adequate smoke hole, the shelter can still fill with smoke. When the lower edges of the tarps are not sealed off against the ground, and there is a fire going inside the shelter, there will be a constant cold draft coming in under the edges of the tarps. If the weather isn't too cold, and there is an adequate amount of debris for bedding, this cold draft may be 'filtered' and dispersed by the debris enough so that it may not be much of a problem. But in really cold weather, these drafts are quite noticeable and can make for an uncomfortable night.

So in cold conditions, it would be desirable to seal off the shelter from drafts. But then what can be done about all the smoke, and the risk of carbon monoxide poisoning that would be created? One option would be to open the door a bit to bring in fresh air. This will eliminate the risk of carbon monoxide poisoning, let the fire burn better, and provide airflow to carry the smoke up and out of the shelter —but the people sleeping next to the door will definitely feel the cold draft!



The best solution however, is dig a tunnel to bring in fresh air in below the floor of the shelter that goes directly into the fire pit. This is known as a Dakota Fire. The cold air coming in gets warmed by the fire, and if the tunnel is adequately sized, this method provides sufficient fresh air to keep the fire burning well, carry the smoke up and out of the shelter, and eliminate the carbon monoxide poisoning risk. Make the tunnel about as big around as an average persons thigh. Line it with sticks or rocks if necessary to keep it from caving in, and, roof it over with flat rocks, bark, sticks, or whatever is available that will work. Add a layer of dirt to seal off the top of the tunnel and for insulation, and then just place the bedding debris on top of that.

Keep the fire relatively small. It doesn't take a very large fire to warm this type of shelter. If you are going to keep it going through the night, set up 'fire watches,' and take turns sleeping and tending the fire. If at all possible, use wood that doesn't throw sparks. Remember, the debris bed you are sleeping on is essentially a huge tinder-bundle, and you don't want a stray spark to send your bed and shelter up in flames in the middle of the night with you in it!

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