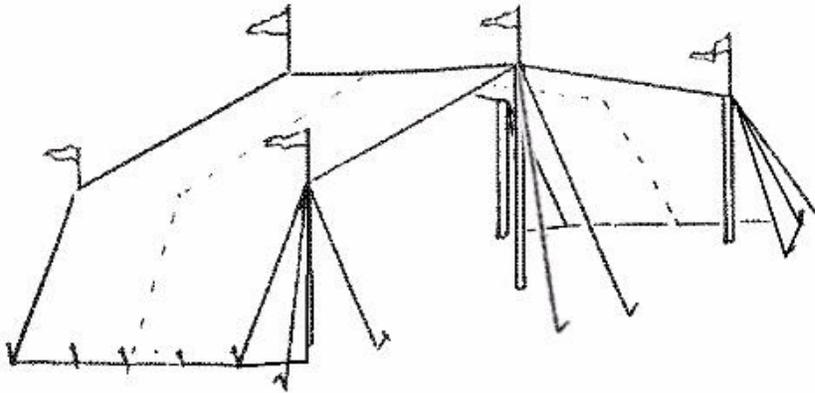


Shade Fly 101

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The image above is taken from the Dragonwing website <http://midtown.net/dragonwing/> and depicts their “BC” shade fly. This type of shade fly is available for purchase from Dragonwing but they also have detailed instructions for building your own.

<http://midtown.net/dragonwing/col0007.htm>

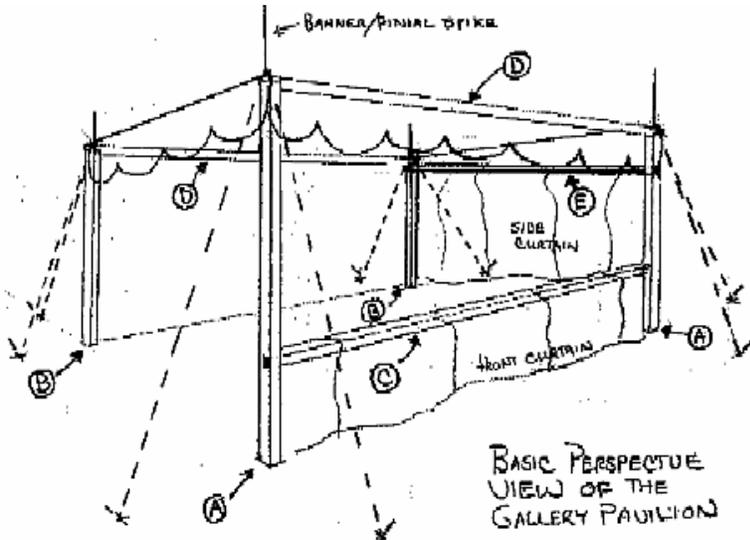
My definition of a shade fly is as follows: a piece of canvas that is suspended with wood and ropes to provide a shaded area to watch activities or gather with friends. A shade fly, in my opinion, is one of the easiest things to make to help improve the look of a camp or add decoration to the field.

The first outdoor structure that I built was a shade fly. My reason for building it was to provide a shady place for people to hang out that was not a blue plastic tarp. I used unbleached cotton duck and 2 x 2's for the posts. I was able to transport all of the wood by using a roof rack on my Saturn. I was still camping in a dome tent when I made my shade fly. I felt confident enough in my sewing skills that I figured I could make a big rectangle of fabric and if it turned out horribly wrong I would not be out a lot of time, effort or money. I used my shade fly for a couple of years until it sprouted a lovely shade of green, purple and black mold. I bleached the heck out of it and got rid of the mold but the fabric remained discolored. Despite this initial setback I went on to create shade fly Mark II, Mark III and so on. To date I have constructed several and they usually make an appearance at numerous events during the summer.



Types:

The majority of the shade flies that I have made use the pattern found in the Complete Anachronist #26 [A Survey of Pavilions of the Known World](#), a drawing of the design can be seen below. The basic structure is a rectangular canopy constructed using 2 widths of 60" canvas, the corners are then mitered and the whole thing is supported using several 2 x 2's varying from 6-8' long. I choose to omit the shorter front panel and just construct the canopy. This particular shade fly can be completed in a weekend and is easily transported to the field and erected with little time and an extra pair of hands. The current Northshield



shade fly is constructed using this pattern and I can set up the canvas canopy by myself in 15-20 minutes. This type of shade fly can be made in a variety of sizes and is very stable in windy situations. It does use a number of poles, which will add to the weight when transporting it. I personally like this design since it will provide shade for a large number of people. The disadvantage is that the sun, especially early and late in the day, can chase you.

The image above is a viewing gallery designed by Master Charles Oakley <http://www.medievalwood.org/charles/shade.html>. It is similar in style to a number of viewing galleries that are depicted in paintings or illuminations.

I have only made this style of shade fly once and while I found the finished product pleasing, I found the design cumbersome. The amount of wood and the mortise and tendon joints made this more of an intermediate than beginner project. I also found the amount of wood unnecessary. A simpler rendition of this shade fly would omit the front curtain and the poles that run horizontal at the top of the canopy. What you are left with is a rectangular piece of fabric and 4 poles. The rear wall is staked down to the ground, two uprights are placed towards the back wall and the remaining two uprights are placed in the front two corners. Rope and stake the poles as shown in Charles's diagram and you have an instant shelter. I have seen this less complex design along the edge of numerous battlefields because it is so easy to make and requires only a few poles.

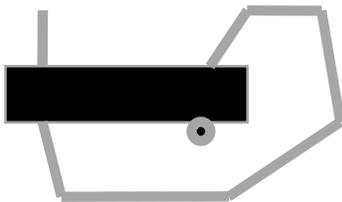
Materials:

I use 6-8 oz poly-cotton canvas, also referred to as trigger or twill, for constructing my shade fly. This fabric usually runs \$3.99 a yard and I will typically use 9-12 yards. The fabric comes in a wide variety of heraldic colors and one can easily construct a canopy that reflects their personal or group heraldry. I typically do not use natural or white canvas for a number of reasons. I have found that natural and white canvas easily mildews. It will also show dirt more readily. I have not had colored canvas mildew, perhaps this is because of the dyeing process, but I am not sure. I prefer using colored canvas for my shade flies since it adds to the visual spectacle on the battlefield. Poly-cotton twill makes an excellent sunshade, but it does not work well keeping people sheltered during a storm. If I was interested in making a shade fly that kept me and my belongings dry I would use Sunforger. I have constructed a BC shade fly using Sunforger and I use this structure for my kitchen at long wars. By using Sunforger I increased the cost of my shade fly by nearly 100% but I ended up with a product that I knew would keep me and my belongings dry, unless the whole structure blew down. The poly cotton canvas will keep out a light rain but that is about it.

I do not recommend using awning fabric. Awning fabric is almost always synthetic, it is very heavy, and it is usually expensive. This type of fabric does not breath at all and you will need to seal the seams or they will leak. Although this type of fabric is available in a variety of colors and designs my personal opinion is that it is more trouble than it is worth.

I have sewn my shade flies using everything from a portable Kenmore to a Singer sewing machine from the 50's. I believe any good quality machine should suffice for this project. I recommend using a heavy needle, size 16 or 18 (leather needles work fine) and good quality thread. I use quilting thread and sew the canvas together using flat felled seams; this is the same type of seam on your jeans. You will need to put grommets in the corners and center of your shade fly to receive the spikes on the tops of your poles. I always recommend re-enforcing any area before setting in a grommet; an extra layer or two of fabric is usually sufficient. One can also reinforce the seams on the canopy by applying cotton webbing. I did this on Shade Fly Mark II, but have omitted it on the ones that followed. I didn't feel strongly that it was necessary, but it didn't hurt either. I leave it up to you to include it or not.

My first canopy used 2 x 2's on the corners and in the center and I have found them to be sufficient to support 6-8 oz. canvas. The spike on the end of the 2 x 2's is made from 5/16" steel rod that I purchased from the home store. I cut 6" lengths with a hacksaw and drill a hole in the end of the 2 x 2. I usually leave 3-4" of the rod sticking out the top. I suggest using metal stakes and good quality rope made with natural fibers. The rope I use is the 3/8" jute, that I purchase at Home Depot. I have purchased stakes from Panther, and I was very happy with them. Currently most of my stakes are purchased from Danr at Irontree works, www.irontreeworks.com. Since Danr lives near me I can save shipping costs and get whatever size stakes I require. I tighten my ropes by using slides, also referred to as "dog bones". I buy a one-inch diameter hard wood dowel; cut it into 6 inch sections and drill two holes, then I fish the rope through. It makes adjusting the tension on the tent a lot easier than pulling the stakes up and hammering them down over and over.



The diagram on the left shows a method for fishing the rope through the slide that I learned from Viscount Tristan. With the slide facing you and the drilled holes running north/ south you fish the rope up through the hole on the right, loop it around to the hole on the left and up through that hole. You tie a knot on one end of the rope and a loop at the other. The loop goes over the top of the spike on your vertical supports and the length of rope before the slide goes over your stake.

You can easily make a 12' x 20' canopy for \$50-\$75, including the cost of the canvas, wood and rope. A commercial carport of similar size will cost over \$100.

Decoration:

Most of my shade flies consist of a solid color canopy and a valence in a contrasting color. Many times I have painted the valence with a motto or design. For paint I use exterior grade house paint. You can use fabric paint, but this does require heat setting and house paint does not. Another item that can be added are pennants. A small pennant can be tied onto a short piece of dowel or PVC, which is then slipped over the spike in the top of the 2 x 2.

You can also paint your poles a variety of colors. I recommend sealing your wood in some manner since it will add to the life of your structure.

A Note about Carports:

I know I am going to insult someone by saying this, but I do not like carports. The frames are heavy to transport, they take up just as much room in a vehicle as a canvas and wood fly, they are expensive, and there is nothing about them that is period. They can also be dangerous. I have frequently seen carports set up and not staked down. These same carports turn into sails when the wind picks up and I have seen them tumble across a field and land on people, injuring them. I have seen flying carports rip holes in the roofs or walls of canvas tents. I have also seen the twisted wreckage of carports piled by a dumpster next to a ripped and mangled plastic tarp. Fabric can be patched and mended and new 2 x 2's can be purchased if a shade fly gets destroyed in a storm, it's not that easy to repair a metal frame or plastic tarp. Some people have chosen to hide their carport under a fabric canopy. My personal opinion on this is you might as well just make a shade fly since you are going to use just as much fabric and it will be just as complex a sewing job. I will admit that carports come in handy in interior spaces since they can be set up without having to use ropes and stakes. The bottom line is no matter what you do they will always scream "modern".

Sources:

A Survey of Pavilions of the Known World, Alexandre le BonHomme, ed. *Compleat Anachronist* (<http://www.sca.org/ca/>) Number 26, July 1986. (Individual articles by Susannah Griffon, Rognvaldr Buask, Briony Blaaslagen, Seosaidh mac Seosaidh, Ceridwen Dafydd, Kathryn of Iveragh, Hans von Steinhaus, and Luciana della Ridolfi.)

Dragonwing Home Page <http://midtown.net/dragonwing/>

West Kingdom Pavilion Company. Creators of the BC shade fly, includes instructions on their website for making the same.

Pattern for the viewing gallery designed by **Master Charles Oakley**

<http://www.medievalwood.org/charles/shade.html>.

Irontree Works: Stakes and ironwork www.irontreeworks.com

Glossary:

Canopy: The roof of the tent.

Finial: Refers to an item that is placed on top of the spike on a center or perimeter pole. Usually fashioned out of wood, finials can help add extra decoration to a tent.

Grommet: Round metal attachments consisting of two pieces. They are placed on either side of the fabric and are pounded together to reinforce a hole in which to insert a steel spike.

Guy line: The ropes on a tent. Guy lines can be used to support perimeter poles or center poles. Guy lines that support center poles can also be referred to as "High Wind lines".

Ridgepole: Refers to the horizontal board that is placed between the two uprights in the center of a marquee. This item is frequently used to keep the top of the roof from sagging.

Rope sliders/ Dog bones: Wooden pulls attached to guy lines, used to tighten the ropes.

Spike: the metal tip on the top of an upright. Usually fashioned out of lengths of steel rod.

Stakes: usually forged of iron, stakes secure the ropes or the edge of the walls to the ground.

Sunforger: Sunforger is not the name of a fabric, instead it refers to the chemical treatment applied to a pre-shrunk (also called “boat-shrunk”) 100% cotton canvas. This treatment makes the canvas water tight and mildew resistant. Sunforger can also come with a flame retardant applied: CPAI-84 rating is standard and required by some state fire marshals.

Upright/ Center pole/ Perimeter poles: All of these terms apply to the wooden supports that run vertically in a pavilion. Center poles are found in the center of the tent, perimeter/ side poles are found at the edge.

Valence: A strip of fabric that hangs down from the edge of the roof canopy. This strip can measure between 10-12” and can be painted or decorated with various motifs. The valence is typically used to guide water to the ground and away from the tent.