Painting on kites isn’t a replacement for applique, nor is it something new. Kitemakers have been painting on kites for hundreds of years, but painting on nylon has presented problems. What makes painting on nylon in this way special is its lasting quality. A few years ago, I was seeking a method of painting on kite material would result in a more permanent kite than one made from painted paper. After several trials and errors, I came on this method that allows the acrylic paint to adhere and remain flexible on the fabric. I have since found that I am not the only artist/kitemaker that has been using this method, but it has made a big difference in the appearance of my kites.

The product that has made the difference is GAC 900, an acrylic medium made by Golden Acrylics. GAC 900 is made to produce fabric paints from acrylic paints. When this product is added to acrylic paint in a 50/50 ratio and heat set when dry, the paint remains flexible.

I have been using this method of painting on nylon for about three years, and it has allowed me to create images on kites that are paintings. I can change the value of a color within an area or even change the color itself. I can create the illusion of form and contrast. If I use the right colors and paint them in the right order, I can even create and image that is translucent and glows whether the sun is striking it from the front or the back.

Supplies

I prefer to paint on three quarter ounce ripstop fabric but on larger kites I have used one-and-a-half-ounce white ripstop nylon. I have not experimented with specific brands of fabric. Be sure that the fabric is two inches wider in both directions than the stretcher bars described below.

The GAC 900 works with any brand of acrylic, but I do advise the use of quality brands. Recently I have been using Golden fluid acrylics and have liked the results. I suggest Golden Acrylics, Liquitex Artist Color, M. Graham and Co., Winsor and Newton or Grumbacher.

I recommend selecting colors that are the most transparent; the colors will glow when light is coming through it from the back. Opaque colors will lose their intensity, as not as much light will shine through them. Most paint brands will have information on the transparency of their colors.

Colors I suggest include Cadmium Yellow Light, Hansa Yellow, Magenta, Quinacridone Crimson, Alizarin Crimson, Phthalo Blue, Prussian Blue and Dioxazine Purple.

In addition to GAC 900, the other paint additive you’ll need is a clear polymer medium varnish (matte or gloss) to make the colors more transparent and as a final varnish.
Other necessary materials or equipment:

Artist canvas stretcher frames - four are needed (two of each length) to make a rectangular frame (available at art supply stores)
Acrylic paint brushes, your choice of size
Palette or small plastic plates for paint mixing
Palette knife or plastic spoon for stirring paint
Containers for water - plastic cups, etc.
Paper towels
Hair dryer and extension cord
Iron and ironing board
Staple gun or tacks

Creating Your Image

One of the beauties of painting on a kite is that one is not limited by the type of image that can be created. One can make an image that is nothing but shapes and colors, one that is an abstracted form, one that is expressionistic, or one that is more representational or realistic. Remember that the kite will be flying 100 to 300 feet away from you. Don't get carried away with small objects or too much detail.

Think about composition when creating the image. Make sure that your image has Unity, Dominance, Balance, Movement and Contrast. When painting the image be sure that you pay attention to color harmony and value.

Draw your image actual size on paper and make corrections and additions as the image develops. After the image is completed transfer it to the fabric. To do the transfer, simply lay the white fabric over the image, tape in place to avoid movement and draw the image onto the fabric using a fine point permanent marker. The marker lines will remain when completing the preparation of the fabric.

Preparation of Fabric

Method One: Wash the fabric using a strong detergent like Oxyclean or other grease-removing agents. Run the fabric through four to six wash cycles before letting the machine run through the rinse cycle. I suggest that the fabric be run through the rinse cycle at least two times to remove the soap. This will remove not only any oils but also some of the coating on the fabric. The advantage of this method is that the pores of the fabric have been opened and the first coating of paint will permeate the fabric and create better adhesion. The disadvantage of this method is that the fabric will slightly shrink and pucker.

Method Two: In a well-ventilated area, scrub the surface of the fabric using denatured alcohol. Allow this to dry. The advantage of this method is that the fabric is not shrinking or retaining its smooth flat surface. The disadvantage of this method is that the paint does not penetrate the surface of the material as much, and you must have a well-ventilated area to use the alcohol.

Stretching of Fabric

Assemble the stretcher frames to make a rectangle frame and make sure that the corners are square. Lay the slightly damp fabric on a stretcher bar frame and start stapling or tacking the fabric to the outside edges of the frame. Do this by tacking the center of one side, then move to the center of the opposite side, then one of the remaining sides and then its opposite side. Continue by tacking about every four to six inches from the center to the corners and by moving from one side to the opposite side as described with the first tacking. As this is done the fabric should be pulled snug but not tight. The fabric will shrink as it dries. Be careful not to stretch it too tight as some fabrics do stretch and shrink quite a bit.

The first coat of paint is going to partially penetrate the surface of the fabric. Stretching the fabric on a frame as described above will result in fewer problems. If using method one of preparing the fabric, the fabric may be stretched right after washing. If using method two, get the fabric wet and wring it out with your hands.

If the fabric is not going to be stretched on a frame, the working surface must be prepared for a mess. As stated above, the first coat of paint is going to partially penetrate the fabric. This can result in paint going onto the surface under the fabric. Having the fabric on a glass surface...
makes clean-up easier. Drying time is also longer if the fabric is resting on a surface.

**Painting Suggestions**

The first coat of paint will penetrate the surface. If a more precise painted look is desired, or if there are problems in the colors bleeding, coat the fabric with a 50/50 mixture of GAC 900 and Clear Polymer Medium and allow it to dry. This will seal the surface of the fabric. Colors may be thinned and made more transparent either by adding a little water or by adding a 50/50 mixture of GAC 900 and Clear Polymer Medium. Each will have its own look. The water results in the paint developing spots of color. The polymer medium results in a smoother gradation of color.

Be sure to keep your layers of paint thin. Thick paint on the surface of the fabric would be less flexible and could crack or peel. Use paints thinly like would be done with watercolors. The white of the fabric, like in watercolor, is the white used to make tints of the color. To make a color lighter, paint it on thinner. Adding white to the paint will result in making it opaquer and the color may get lost when the kite is in the air. Paint from light to dark. Painting one color over another will make the first darker even if the second color is lighter. Pay attention to contrasts as the image is painted. If two connecting areas are different in color but the same in value, the image will get lost. Step back and look at the image from a distance. Does the image stand out? If not, try increasing the contrast.

**Final Coating**

When the image has been completed, you may want to give the fabric a final protective coating of a 50/50 mixture of GAC 900 and Clear Polymer Medium/Varnish and allow it to dry.

This will add more weight to the kite skin, and you may want to do this only if the painted areas are very thin. Use only Polymer Varnishes for the final coating. Some other varnishes made for acrylic paints appear to be less flexible and more brittle.

**Heat Setting**

I recommend the use the heat setting processes described in the Golden Acrylic information, available at [www.goldenpaints.com](http://www.goldenpaints.com). They advise using one of the heat setting methods if the fabric is to be washed. Although it might be unusual to wash a kite, a kite does go through a lot of abuse. I use a hot iron with a Teflon pad and iron directly on the back of the painted fabric. One should be aware of any hazards that could result in putting heat to this painted nylon surface. An iron that is too hot may melt the fabric.

Golden Acrylics advises that the heat setting process will release low levels of formaldehyde; therefore, it is imperative that adequate ventilation be provided. You can also use a household clothes dryer, set on high, for 40-50 minutes.

**After Painting**

The surface of the paint does remain somewhat tacky even when dry and wants to adhere to the table surface when face down during sewing. This is not too bad but it does help to hold the fabric up when it is going through the sewing machine. Sand also wants to stick to the surface of the painting. Carry a large soft brush when you are at the beach. Try to avoid the surface of the painting scraping against any abrasive surface. A Golden Acrylics representative advised not to fly the kite in temperature below 50 degrees as the painted surface would become more brittle. I recommend that the painted surface only be used on a kite that can be carefully rolled. A wrinkled-up skin when the kite is stored may result in damage to the image.