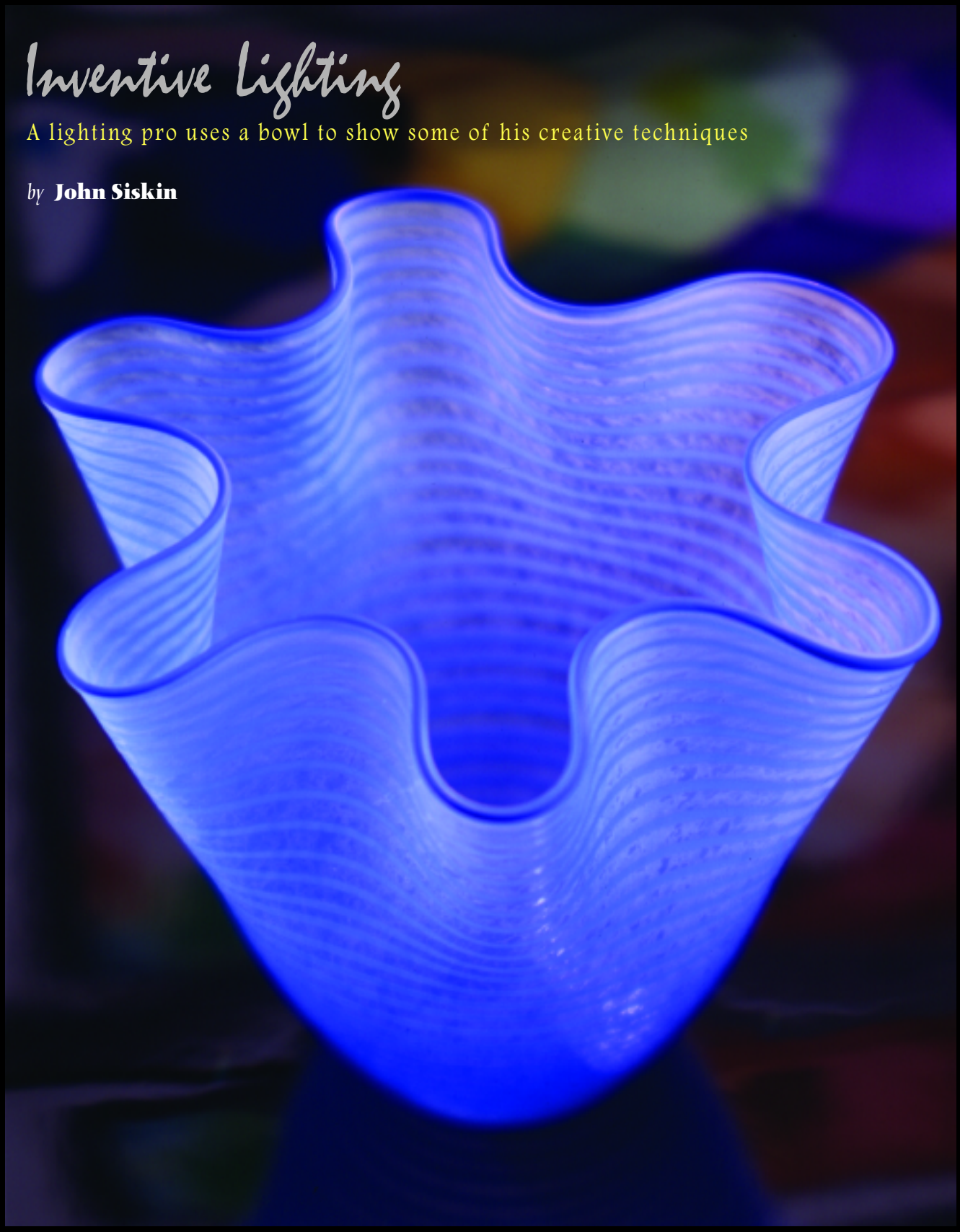
Inventive Lighting

A lighting pro uses a bowl to show some of his creative techniques

by **John Siskin**



I made this shot with a studio lighting class I've been teaching for almost 20 years. As with most demonstration images, it has multiple purposes: to be beautiful and to instruct.

I am always trying to help students understand that creativity knows no bounds. Some would like us to think that we are creative when we decide what to photograph; others want us to be creative in how we see an object or person. While I insist on these aspects of creativity in photography, I further assert that we must be creative in our approach to the problem of how to light a photograph. In this case, I was trying to help students understand how to manipulate light with bounce, shadow, and color. To this end, I did all the lighting in this shot with just one light. I directed light into the subject from both sides, behind and in front. I even had a reflector overhead. My goal was to create a sense of light and color from all directions and a glow on the vase.

The subject was a vase from the Kosta Boda Company (it was a wedding present). My first step when setting up a shot, is to arrange the relation between subject, set, lens, and camera. I chose a glossy black paper as my background. It can be used like black Plexiglas if it is kept very flat. In this case, I allowed it to be wavy, causing a more interesting reflection. One of the nice things about this paper (called Mirror Black, by Windstone Papers), is that the subject actually touches its reflection. I could have used black-painted glass, but the reflection would have been separated from the subject by the thickness of glass.

I placed the vase about one-third of the way back on the black paper—I knew that the vase needed space behind it to stay on the background. I used a Toyo C 4×5 camera with a 210mm lens (equivalent to a 70mm lens on a 35mm camera). I also decided to use a Hoya Softener filter; it helped to create a sense that the glass was glowing. The focal length of the lens enabled me to place the camera a couple of feet from the set. I used the camera's front rise to center the image and front tilt to maximize depth of field. When I had the image set-up in the camera, I locked down the camera stand and started on the lighting. I like to start with the camera-subject relationship because that way I don't end up with a light stand where my camera needs to be.

Light source

My light source was a Smith-Victor 770 quartz light, a 600-watt continuous light balanced for tungsten film or tungsten capture in digital. The light was directed at a 60-inch white satin umbrella with a black cover to reduce light spill. I placed a shiny silver reflector into the umbrella (see figure 1) to bounce some light with a different, harsher character out of the umbrella. Now I had light with two different characteristics. As I continued to manipulate the light, I used several tools: reflectors, filters, and gobos (black cards used to block light, create shadows, and balance light and dark areas). The reflectors bounced light into the set (hopefully where I wanted it!). I mostly used mirrored Plexiglas to direct light in this set. The filters helped me change the color of the light. I used two different sorts of color-changing material in this project: a gold reflector and a multicolored filter made from a filter swatch book.

Direct light from a small light source creates hard shadows and glare spots on the subject, so most of the light we used went to the umbrella first. The umbrella diffused the light and made it act like a larger, softer light source. As the light left the umbrella, headed for the subject, it ran into two layers of white rip-stop nylon. This had two purposes. First it removed a large portion of the light going in this direction. Reducing light from the side made it much easier to balance the sides of the subject later. The nylon also further diffused the light, making it appear to come from a very even source about 4×4 feet in size. As the light left the diffuser, it encountered a small gobo, or piece of black cardboard, about 8×10 inches. This removed most of the light coming from this side of the subject. If the gobo were closer to the subject or if it were larger, it would have removed more of the light from that side of the subject.

Most of the lighting on the vase was simpler than that. As the light from the rip-stop nylon diffuser continued past the subject, it encountered a Plexiglas mirror that reflected it back into the subject. This reflected light helped balance the two side of the vase. Another mirror, a gold one this time, was placed on a C-stand that held it over the set. Note that this mirror was set up to reflect light directly from the umbrella, light that didn't go through the rip-stop nylon diffuser. As a result, the subject received relatively more light from overhead. I did much the same thing in front, placing another mirror in front of the set, below the table, to kick light back into the front of the vase. You can see how these reflectors were placed in the photo of the set (figure 2). Now the vase was illuminated from the top, both sides, and the front. Since we carefully adjusted the reflectors, the vase was evenly lit. The actual shape and position of the reflector affect and amount of light it provides and its placement.

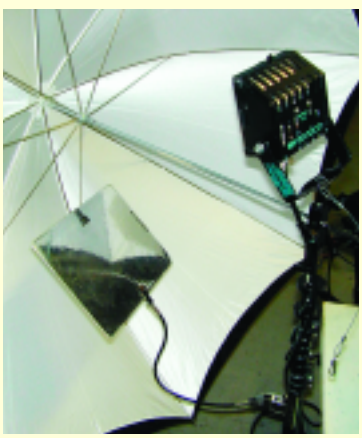


Figure 1. *This shot shows the umbrella with the Lowel Tota-flector and the Smith-Victor 770 light.*

Figure 2. This shot show the whole set. Note the front reflector just below the camera. Since it is side on to the camera it is easy to overlook.

Background light

Now we come to the light behind the subject, which also created the background for the shot. Remember that I said the subject was set-up on a piece of glossy black paper—it certainly doesn't look that way in the final shot! To make the light look this way, I sent it through a special filter—but let's start with the Smith-Victor light.

The light went from the Smith-Victor to a small reflector (made by Lowel, www.lowell.com, and called a Tota-flector) that I placed in front of part of the umbrella. The Tota-flector isn't damaged by heat the way Plexiglas is. The light that came off of this reflector was harsher and brighter than that reflected by the umbrella. The light as also directional, so it didn't spread all over the set; it went from the Tota-flector into a large Plexiglas reflector behind the set. This will finally enable us to point the light at the back of the set. If this was all I'd done, the light would have been too bright, and it might have spread in an unattractive way around the vase. I therefore placed a special multicolor filter between the Plexiglas mirror and the set.

Do-it-yourself filter

I made this filter by using spray-mount adhesive to attach the samples from a filter swatch book to a 16×20-inch piece of glass. You can see how this was set into place in figure 3. I originally made this filter because a client wanted light that seemed to come from a stained glass window. I have had a lot of fun with this "window" over the years, and it certainly makes a difference in this shot. Now the light from this bright window bounces off the glossy paper. The glossy paper reflected the image of the window with some distortion because it wasn't perfectly flat, and removed much of the brightness from the window because it was black. The paper also reflected the base of the vase in an attractive way. We needed more and harsher light to properly illuminate the window so that light would end up looking right in the camera. If you think of the glossy paper as a reflector, the light bounced off three reflectors and through one filter on its way to the lens.

The working aperture, after bellows extension, was *f*/16.5. I shot a couple of Polaroids in the class and settled on an exposure of 11 seconds with Kodak EPY film (tungsten balance, ISO 64). It helps to have a proof, of some sort, when shooting something this complex. If I wanted to do this with digital capture, I would have changed the ISO and aperture to get a shutter speed less prone to digital noise.

Figure 3. *This shot shows the filter made from a swatch book. It also shows the large Plexiglas reflector that sends light through the filter.*

Conclusion

The important idea from an exercise like this is that light sources are available to us as photographers that we don't always think about. When I reduced the light falling directly onto the subject, opportunities to do creative things with the light opened up. ■

John Siskin is a commercial and fine art photographer specializing in product images and portraiture, as well as macro and architectural photography. He has taught photography for more than 20 years. He currently teaches black-and-white photography at Los Angeles Mission College. His studio is in Reseda, California, and his web site is www.siskinphoto.com.