

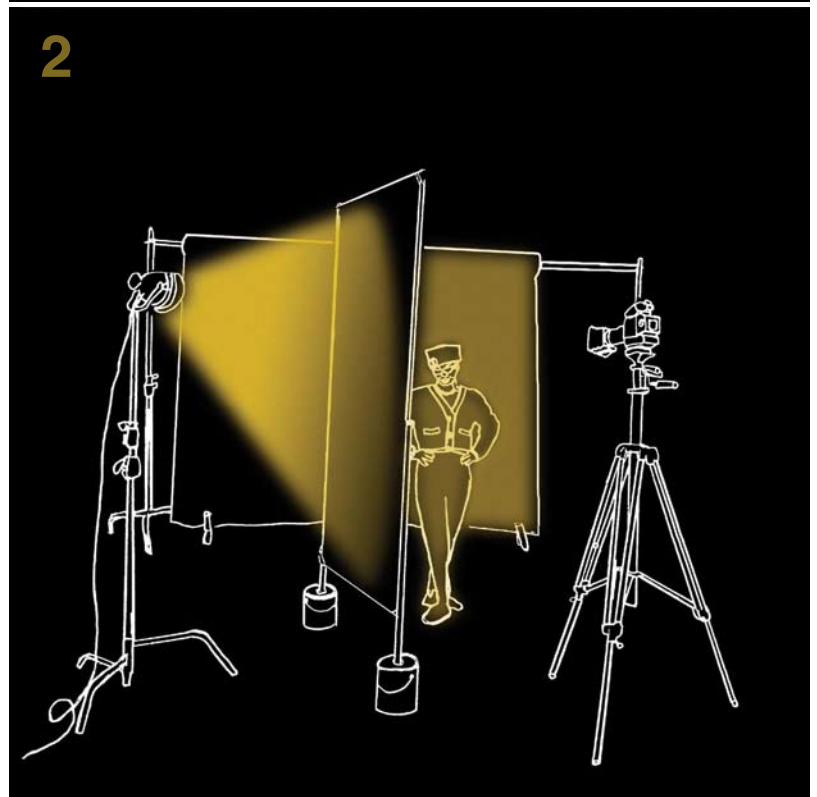
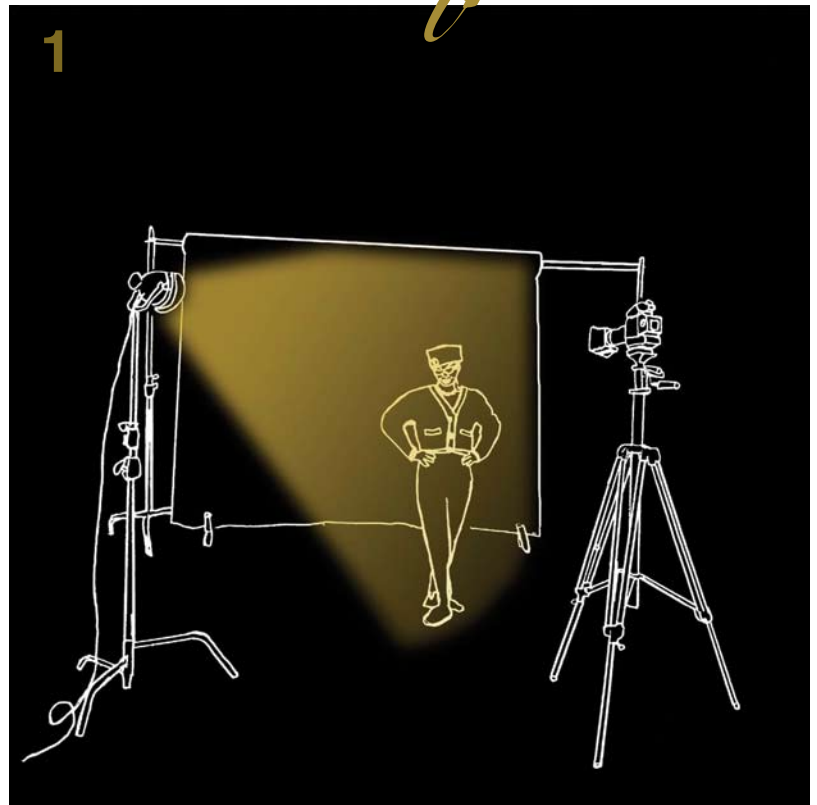
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BY DAVE MONTIZAMBERT



Not so long ago, my mentor and friend Dean Collins of Finelight and Software Cinema passed away from cancer. Dean was responsible for a huge chunk of my knowledge and success in photography, as he was for many others. As a tribute to Dean, I would like to show you a fascinating lighting technique that he taught me in the first days of studying with him back in the early 1980s. He gave me an exercise that seemed impossible—**CREATE A DRAMATIC PORTRAIT OF A PERSON AGAINST A PURE WHITE BACKGROUND.** Already a daunting task for a beginner, it got worse: I had to do it with just one light! With that one light, I was expected to create soft wraparound light on the subject, make a pure white background, control shadow density, and create a separation or hair light. This kind of image was typically done with five to seven lights. (I thought Dean was prejudiced against Canadians or that it was some kind of cruel initiation joke.) Using my muse, Sylvianne, as a model (she bounces light really nicely and she doesn't hit me up for modeling and usage fees), let's look at how to accomplish this task.



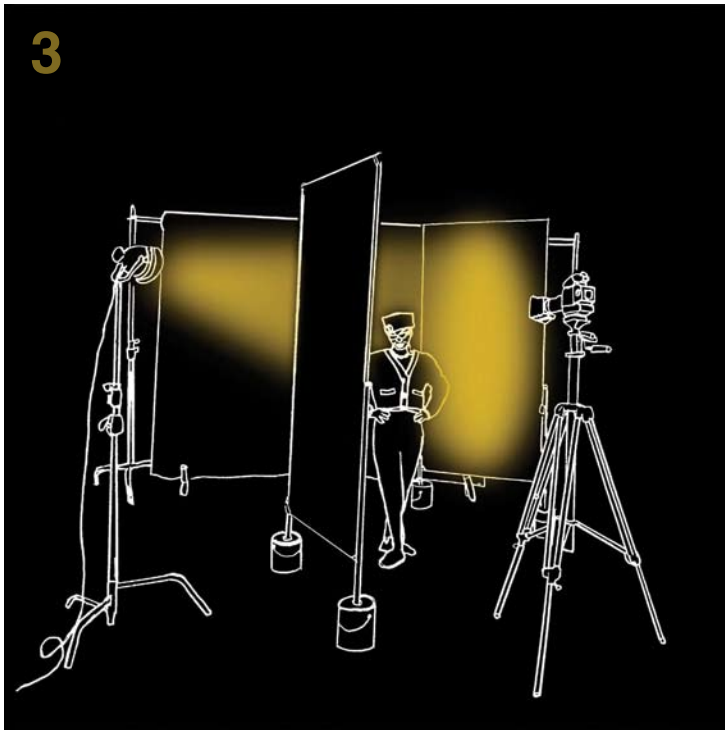
One-light Portrait



Frame One: Sylvianne is lit by a relatively small light source set approximately 5–6 feet from her. The light has a standard 7-inch parabolic reflector on it, and it has a layer of frosted acetate gel to even out the hot spots. As you can see, the light quality is hard. Some of the light is spilling past Sylvianne onto the gray background. To even out the illumination between Sylvianne and the background, the light head is feathered slightly away from her and onto the background. With the camera aperture set to $f/8.5$, both the background and the lit side of her face are illuminated to their proper tonal values, which happen to be about one stop brighter than middle gray.

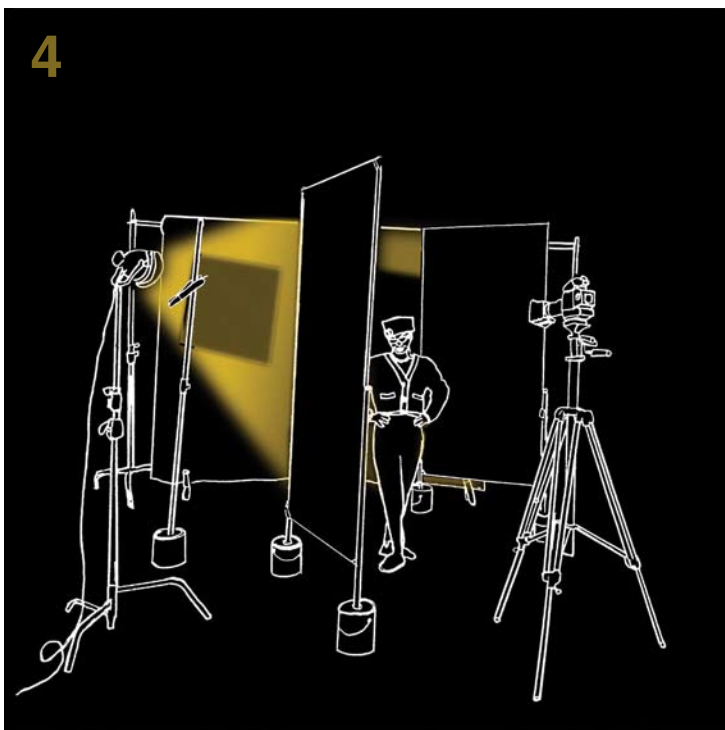
Frame Two: The addition of a 6-foot diffusion panel (a frame with white nylon stretched over it), placed between the light and Sylvianne greatly increased the effective size of this main light source. The entire panel is now considered the main source of illumination to Sylvianne, and the actual light head is now considered the origin of that source. The panel was placed close to Sylvianne (just barely out of camera frame). Increasing the size of the main-light source from a 7-inch lamp to a 6-foot panel and then placing it in close to her created a much softer wraparound light quality. Even with the addition of the panel, the background is still correctly exposed—the panel does not block any of the raw light from the backdrop; however, the panel does reduce the light intensity on Sylvianne, thus under-exposing her (below left: underexposed). Below right: After re-metering, the lens aperture is opened up to $f/5.6$ to make up for the light loss on Sylvianne. At $f/5.6$, she is once again properly exposed. At $f/5.6$ the background is over-exposed by one and a half stops, pushing it into white without detail.)



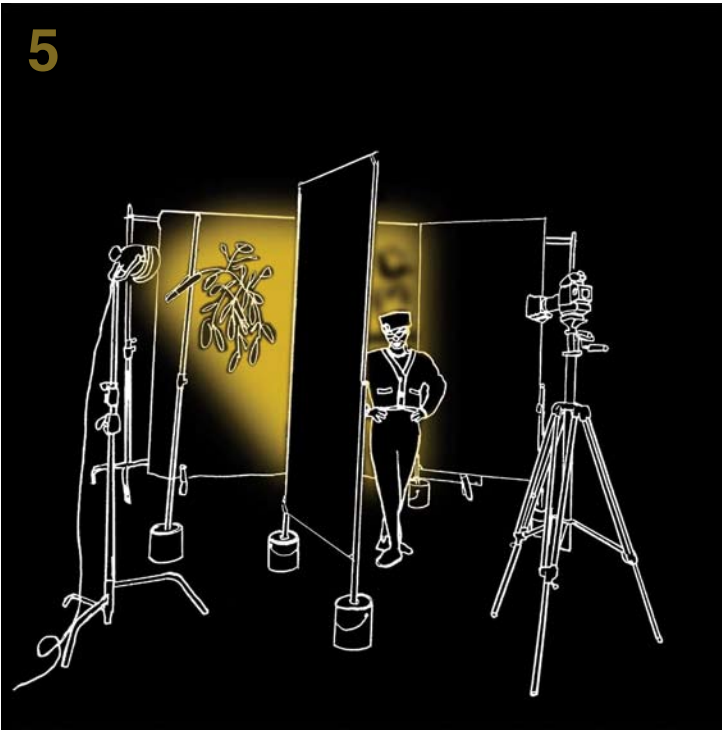


Frame Three: The addition of another panel with silver lamé stretched over it creates subtle separation lighting on her dark hat. For a stronger effect (obviously not necessary on a white background), use a full-length mirror—mirrored Plexiglas is the most durable. This lamé-covered 6-foot panel reflected some of the raw light spilling past Sylvianne onto the rear edge of her body and hat. The light striking Sylvianne from this source reads (incident meter reading) one stop below the camera setting. No fill panel was used because enough light from the main-light panel bounced off the opposite wall onto Sylvianne's shadow side.

Frame Four: For a “quick-change” background variation, a piece of cardboard was placed to block only the light from the background. A reflective meter reading ($f/2.8$) off the background read two stops darker than the camera setting, creating a dark gray (minus-2) background.



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Frame Five: To create a surreal skyscape, a tree branch full of leaves was carefully placed to cast soft-edged shadows onto the background.

Okay, cod liver oil time: here is some of the lighting theory that makes this image work. Looking back at Frame One and Frame Two or Three, the source that lights your subject, called the source of illumination, is critical. Its relative size and its relative distance to the subject have a profound effect on the light quality we see on the subject—how hard or soft it appears. The main source of illumination to Sylvianne in Frame One is the light head. The light head is also the origin of the source. It is where the energy originates.

In Frame Two or Three, notice how the light quality has changed by adding the panel. The light head is no longer lighting Sylvianne, because the fabric blocks it. However, a lot of the light is still transmitting through the fabric onto Sylvianne. In this image, the fabric is the main source of illumination—it lights Sylvianne to her correct exposure value—and the light head is the origin of that source.

It is important to differentiate between source and origin because it is the actual source that affects how the light looks on your subject. Using a panel instead of a softbox or umbrella makes it possible to separate the source from the origin. Separating origin from source allows you to create the effect of many lights with just one light and still control the brightness individually. For example, if you find that the background is not going to pure white, simply add another layer of fabric over the panel. In fact, add as many layers as you need to drop the brightness on the subject relative to the brightness of the back-

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ground, then increase your exposure with either aperture or shutter speed (if you are not using strobes) to once again correctly expose the subject, which will result in an overexposed background.

In theory, you could create a pure white background from a black backdrop. Think about it: If you give black enough overexposure, it too can be rendered as pure white. Keep in mind that when you add more layers of fabric to the main light panel, the light on your subject will become warmer in color balance.

This lighting setup used on Sylvianne solves a lot of problems. It allows us to create pleasing lighting on a subject against a pure white background with minimal equipment; it reduces retouching; and it allows us to change backgrounds really fast. I still use this setup today. Originally when I was a starving disciple of Dean Collins, I would use white bed sheets for panels, iron plumbing pipe set in an empty paint can full of concrete for stands, an inexpensive 500-watt work light, and 400 ISO film with a long exposure ($f/5.6$ at $1/15$). However, I must say it is a lot easier with Chimera light panels and a White Lightning X1600 strobe head—and my clients don't think they have shown up on laundry day.

One Light Portrait is adapted from Dave Montizambert's lighting book Creative Lighting Techniques, published by Amherst Media of Buffalo, NY. For Photoshop tutorials by Dave, check out www.software-cinema.com. Dave can be reached at montizam@axionnet.com and www.montizambert.com.