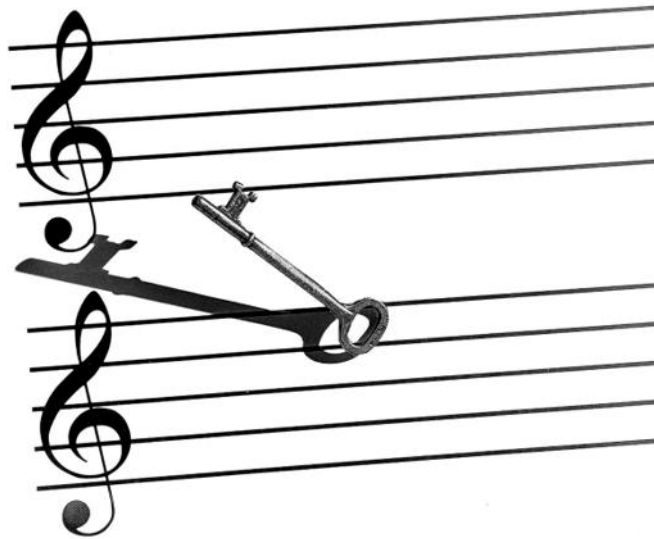


Small Subjects, Big Lessons: Hard Light or Soft Light

By David Hayden



In the previous lesson we spent time looking at the angle of light and how shadows describe shape. Once you begin paying attention to shadows, another characteristic of light starts becoming more obvious. Not just where the shadow falls, but how it transitions from light into dark.

Some shadows have a very abrupt edge. Others seem to fade gradually across the surface of the subject. That transition tells us a great deal about the nature of the light source itself.

Hard light creates shadows with well-defined edges. Soft light creates shadows with gradual transitions. The interesting part is not simply recognizing the difference but understanding why it happens.

Photographers often begin by thinking soft light comes from certain modifiers while hard light comes from others. In practice, it has much more to do with the apparent size of the light source relative to the subject.

The sun is a useful example. The sun is enormous, but because it is so far away it appears relatively small compared to the objects around us. Because of that, direct sunlight produces very crisp shadows and distinct transitions. On an overcast day the clouds scatter and diffuse that same sunlight across a much larger area of the sky. The light source effectively becomes much larger relative to the subject, and the transitions become softer.

This is easily demonstrated on a tabletop.

For lesson 3, I photographed a dried rose using a small LED studio light. With the light undiffused, the petals showed very crisp transitions. The texture stood out strongly, especially where the edges of the petals folded over one another. Every wrinkle and imperfection announced itself immediately.

Then I added a diffusion panel between the light and the flower to show how the transitions naturally soften. The shadows spread more gradually across the petals and the flower began to feel less graphic and more dimensional. This happens, not because of the diffuser itself, but because the diffuser makes the light source larger with respect to the subject.

Now if I were to move that diffused light across the room, the shadows would become sharp /hard again. Even though nothing about the equipment had changes.

Same light. Same diffusion material. Same exposure. Only the distance changes. The diffused light would once again appear smaller relative to the subject than it does when it is close.

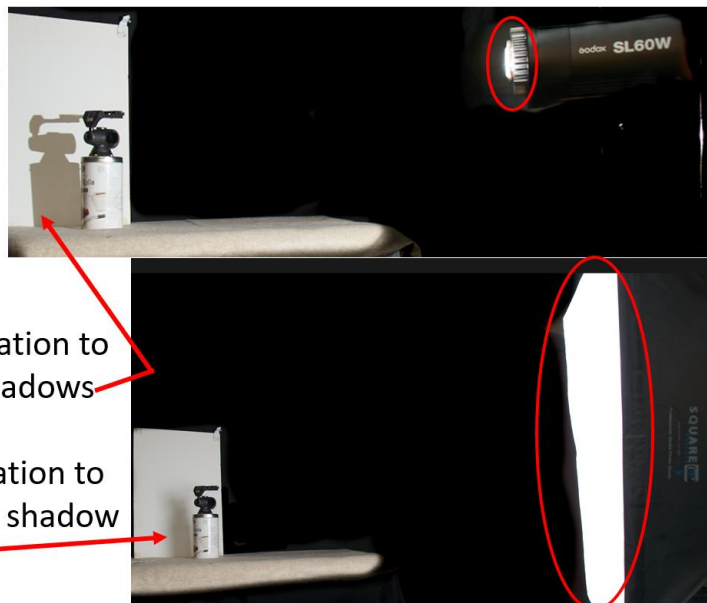
This is one reason tabletop photography is such a useful learning environment. Small movements create visible changes very quickly. Moving a light or diffuser six inches can completely alter the character of the photograph.

Hard Light vs. Soft Light

Size Matters

Light source small in relation to subject - hard edged shadows

Light source large in relation to subject - poorly defined shadow edges



Photograph a fork with a bare light source and shadows appear sharply defined while the reflection tends to appear small. Place diffusion material between the light and the fork and the highlight broadens as the transitions in the shadows get smoother. Move the diffusion closer and the reflection becomes larger and the shadows smoother still.

The fork is not reacting to the brand of modifier being used. It is responding to the apparent size and position of the light source from the fork's perspective.

This is also why a large softbox can still create relatively hard light if it is placed far enough away, while a small diffuser close to the subject can create surprisingly soft light.

The transition between light and shadow affects more than just the shadows themselves. Texture changes as well. Hard light tends to accentuate texture because the shadows it creates are more abrupt. Wood grain, wrinkles, scratches, and rough surfaces become more pronounced. Soft light diminishes some

of that texture because the transitions are more gradual and light is able to reach areas that would otherwise fall into deeper shadow.

Neither is correct or incorrect. They simply describe the subject differently.

Hard light is often useful when you want shape, texture, or drama. Soft light is often useful when you want smoother tonal transitions and a gentler rendering of surfaces. Portrait photographers frequently use softer frontal light because it reduces the appearance of skin texture and imperfections. Harder light, meanwhile, can create striking character and structure.



One thing that helps people understand this more quickly is to stop evaluating whether the photograph itself is “good” and instead study only the transition between highlight and shadow.

A coffee mug works well for this exercise because the curved surface reveals gradual tonal changes very clearly. Fabric is useful because folds and texture react differently under hard and soft light. Pottery, tools, wood, chrome, glass, and dried flowers all reveal different aspects of the light source.

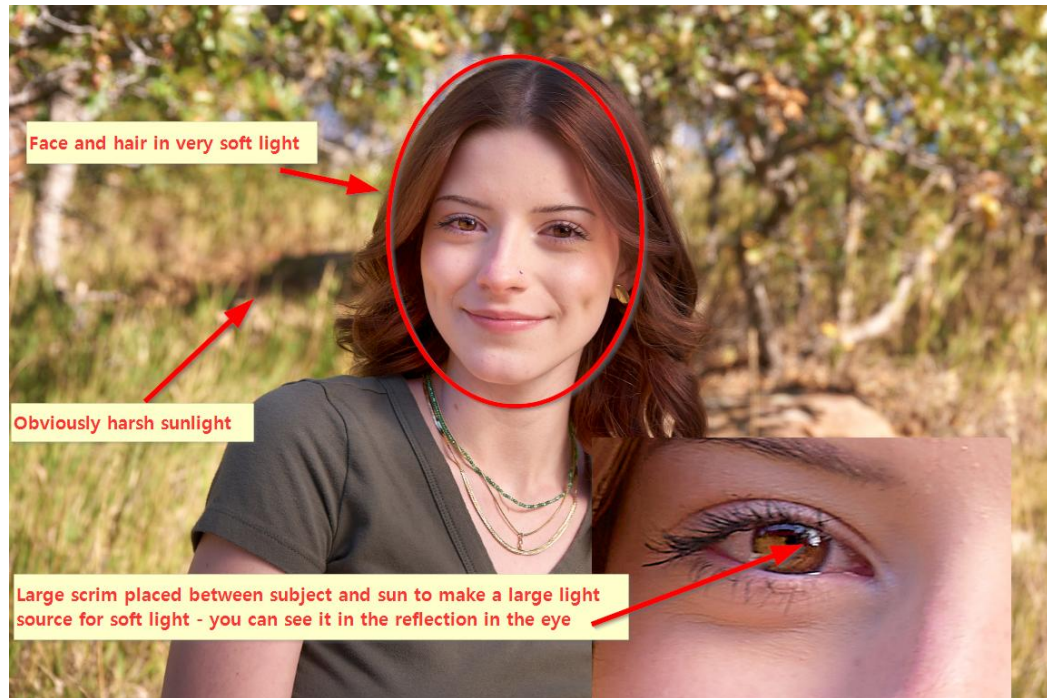
Try photographing the same object four ways:

- small light close to the subject
- small light farther away
- diffused (larger) light close
- diffused (larger) light farther away

You are not creating masterpieces, you are observing what changes. Pay particular attention to the edges of the shadows. Watch how reflections behave. Watch what happens to texture and surface detail. Pay attention to how the same object can feel entirely different depending on how the light transitions from light to shadow.

At some point you begin noticing these things outside the tabletop environment as well. Window light on an overcast day. Direct sunlight late in the afternoon. A lamp in a restaurant. Shadows underneath a car.

You begin recognizing not just where the light is coming from, but how the light presents itself to the subject. That awareness changes photography in a very practical way because lighting stops being a mystery as you begin to realize it always behaves the same. It always follows the same rules.



The scrim in the above photo was actually a 5-in-1 with the reflectors off so light could shine through the translucent material.

Photographers often describe soft light as wrapping around the subject. That is a misnomer. Light does not wrap; it travels in straight lines. What is really happening is the light source is so large compared to the subject, there are a lot of opportunities for light traveling in straight lines to get to more areas of the subject.

Moving a light farther away from your subject always makes the light source smaller in relation to the subject, but it does something else really cool. It changes the tonal range between the light and the shadows. This is what is referred to as light fall-off and will be the topic of the next lesson.

David Hayden is a Southern Colorado photographer and writer whose work focuses on light, observation, and photographic craft.