

**Creativity and Resourcefulness**  
 +  
**Camera Competency**  
 +  
**A Basic Understanding of Light & Shadow**  
 =  
**Great Pictures**

The bulk of this book is centered on creative (right-brain) aspects of picture-taking. Still, no book on photography would be complete without addressing certain left-brain fundamentals. This section provides an overview of light, shadow and a few essential camera functions. You'll notice that the information presented in this section is offered differently than is usually the case with photography books (technical charts and diagrams being conspicuously absent here). In this book, the reader is mainly encouraged to expand their technical know-how in the same way they hone their creative instincts: through hands-on exploration, investigation and play. Consult the glossary beginning on page 352 if you are unsure about any of the technical terms used in this chapter.

**section:**

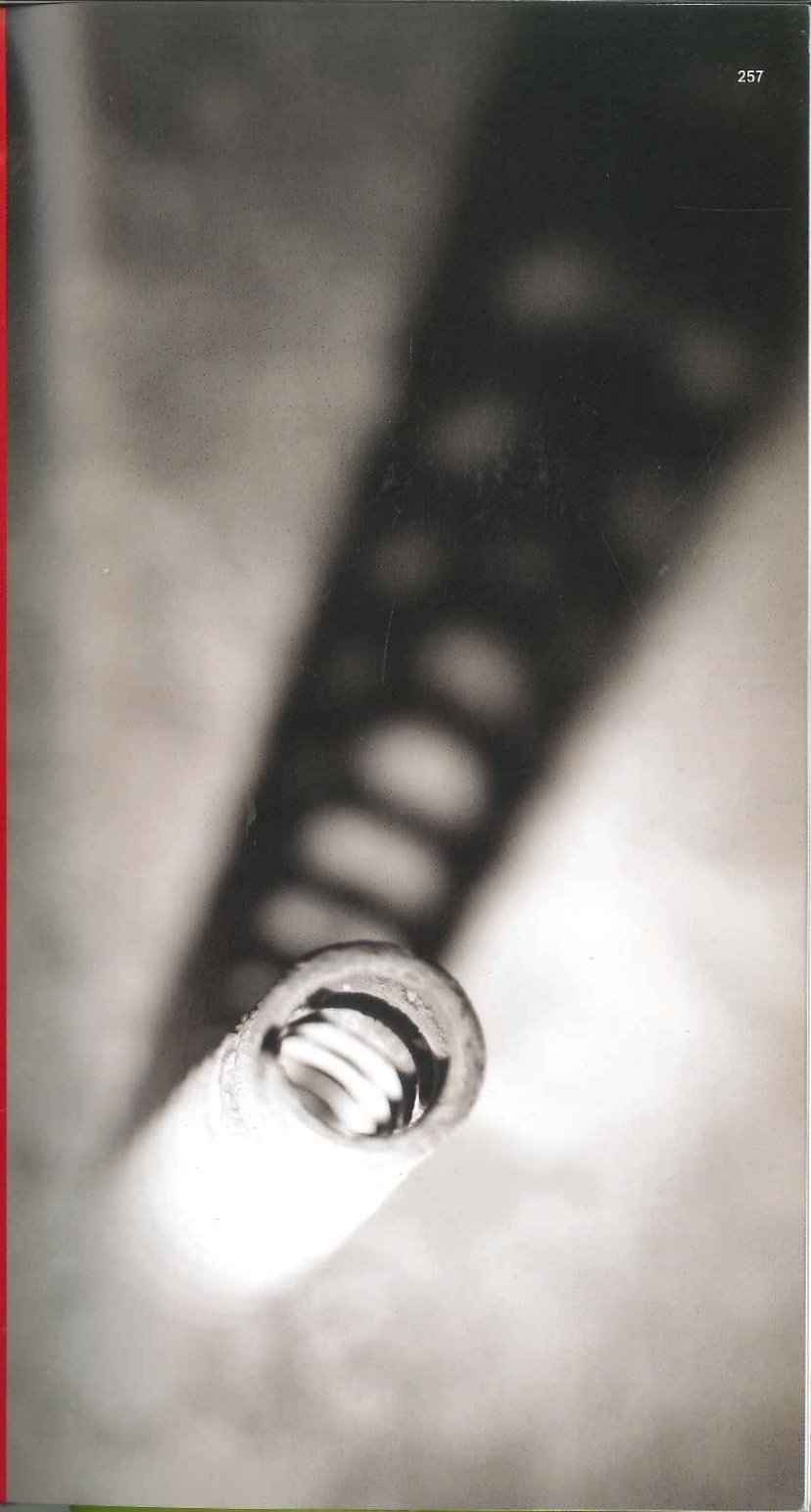
# Light, Camera

256 Light

300 Camera variables

## LIGHT

When we look at something, what we are really seeing is the light that is reflecting off its various surfaces. It is light, and light alone, that we see with our eyes, and it's light's effects that we record with our cameras. The examples on the pages ahead are lit from a variety of single, multiple, natural, colored, direct and reflected sources of light. Use these images to fuel your own exploration of the virtually endless ways of capturing the effects of light as it illuminates the subjects and scenes you photograph.

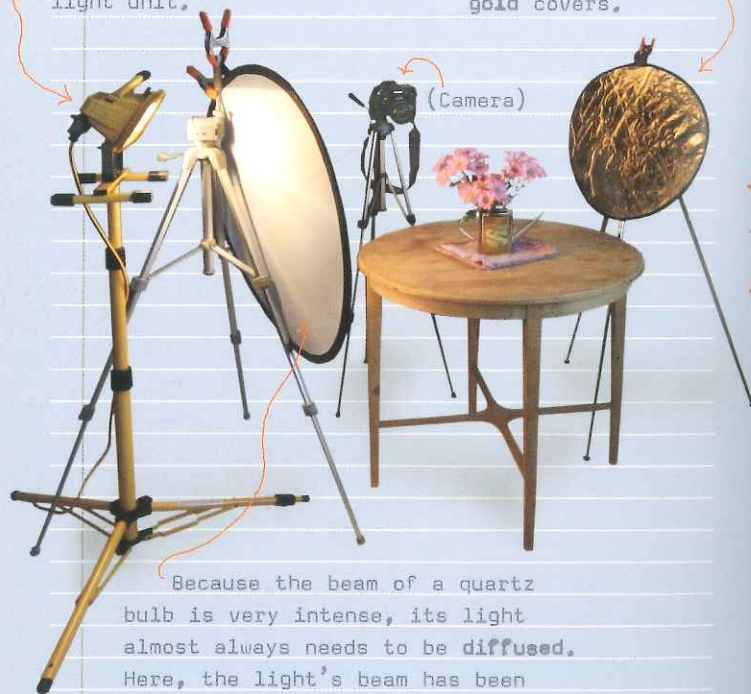


**Lights, diffusion, reflection.**

Most of the studio-type shots featured in this book were taken using either natural light or the equipment shown on this spread.

A work lamp with a 500-watt quartz bulb was used to light the majority of studio shots for this book. Positives: **Inexpensive, bright, and adjustable.** Drawbacks: **HOT (BE CAREFUL! Don't put anything flammable near the lens of these lights!); not as bright as a true photographic light unit.**

When necessary, one or more circular metallic **reflectors** were used to bounce light into a scene. This reflector came with interchangeable **white, silver and gold covers.**



Because the beam of a quartz bulb is very intense, its light almost always needs to be **diffused**. Here, the light's beam has been softened by placing a **diffusion panel** between the light and subject.

A **photographer's umbrella** was also used when diffused light was needed for a shot. The umbrella was clipped to a light which was aimed at its reflective inner-surface. Note: Sometimes it works to simply bounce light off a wall or ceiling to achieve a similar effect.



You may have noticed that the camera is not the only thing on these pages that's supported by a **tripod**. Use spare tripods (secondhand stores can be a good source for these) as stands for both diffusion and reflector panels. By clipping these panels to tripods, their position can be easily **set** and **changed** as lighting options are explored.

**Now and later.**

If you are new to photography, consider budget-sensitive equipment such as the items featured on this spread. If you become more serious about your photographic pursuits, then you might want to consider more advanced and versatile lighting equipment. Ask professionals for advice and check out online photography forums for ideas.



Note the richness and variation of both direct and reflected light that fills this scene—lit au naturale by early morning sunlight. Don't let all of the talk about studio lights and reflectors in this chapter lead you to believe that either is a requirement when it comes to capturing effective images. The lessons presented here can be applied to all kinds of photo opportunities—regardless of whether the shots are illuminated by a bulb, tube, fire or the sun.

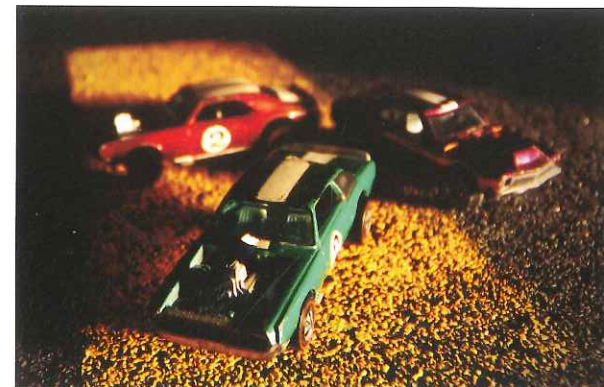
Whether you plan to take pictures in a studio environment or not, a basic understanding of studio lighting will help you work effectively with all kinds of lighting conditions—both controlled and naturally occurring.

Each of the scenes on this spread were lit by one 500-watt quartz bulb (SEE PAGE 258 FOR MORE ABOUT THE LIGHTS AND REFLECTORS USED IN THIS CHAPTER). Aside from a small amount of ambient light in the shadows, the only things lit in these photos are the surfaces that are in the direct path of the light.

Single-source lighting can result in a dramatic—though sometimes harsh—final result. This effect suits some subjects and themes, but in most cases, it is desirable to add some reflected light and/or the light from a secondary source to soften the contrast between areas of light and shadow. *Compare these images with those on the next spread where reflected light has been added.*

It is up to the photographer to decide what the “right” lighting is for a subject or scene. *How much detail needs to be included in the image? What sort of mood is being sought? How can light be used to give the best possible answers to these questions?*

Dark, hard-edged and long-reaching shadows are cast by the low placement of a quartz bulb aimed from the right. The effect suits the rough-and-ready look of the toy cars.



Most of the shadows in this photo appear “dead” (without detail). The harshness of their presentation seems contrary to the inviting and tranquil look of the image’s content and presentation. Compare the shadow areas in this example with the more enlivened ones on the next spread.



Here, strong light is cast directly on the model’s face from the right. The dramatic look of this image is perhaps better suited to contemporary works of advertising and design than its more traditional counterpart shown on the following spread.



In this series, a reflector has been used to bounce the quartz bulb's light into shadow areas of each scene. The reflector was placed out of frame and carefully angled to bounce light into previously dark areas. SEE PAGE 258 FOR MORE INFO ABOUT THE REFLECTORS USED FOR THIS SERIES.

Compare these shots with those on the previous page. Note how the addition of reflected light has brought more detail to the shadow areas, and how the distinction between light and dark is now less pronounced throughout each image.

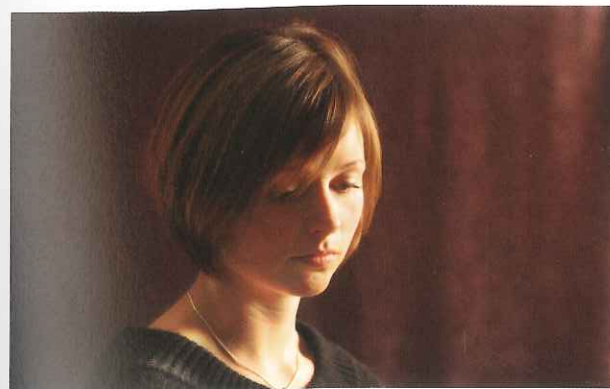
When aiming reflected light into a setting, keep checking through the camera's viewfinder to assess its effect. You may want to secure your camera to a tripod in the meantime so that your viewpoint will not change as you adjust the overall lighting for the shot. SEE STEADYING THE CAMERA, PAGE 274, AND MAKING A SCENE, PAGES 70-73.

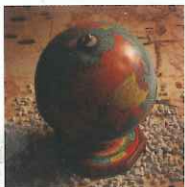
*You don't need to use specialty reflector panels to add reflected light to a subject or scene—many ordinary items will do: a sheet of paper or fabric; a book with a colored cover (see the next spread for more on reflecting colored light); a nearby wall; the ceiling.*

Placing a reflector to the right of the subjects casts light into the previously dark shadow areas. The result is a more congenial presentation than before. Is this appropriate for the given subject matter? That all depends on the look and feel being sought.

No "dead" shadows here—reflected light has brought detail to areas that may have appeared gloomy before. Now the image and content seem to be in better agreement—a gentle light evenly pervades this setting.

In this image, a reflector has been used to bounce light onto the near side of the model's face. Compare this image with the previous version: The drama of before has been exchanged for greater detail and a more portrait-like presentation.



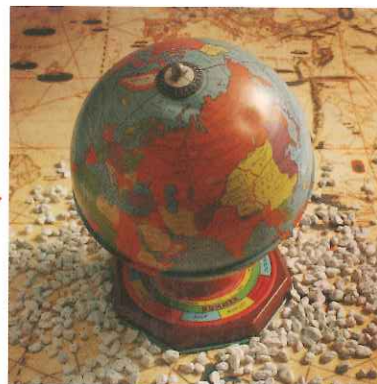


Left: The globe has been lit from one direction with no reflected light. Right: Three different colors of reflected light have been bounced onto the globe.

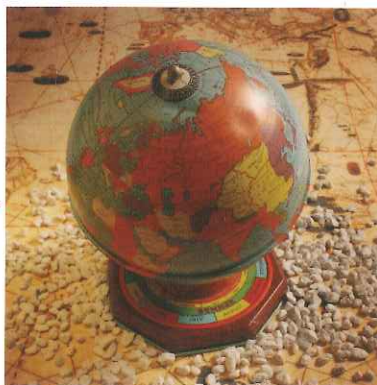
Photographers often use simple white reflectors to bounce light into a scene. If a “cooler” effect is desired, a silver reflector can be used. If a “warmer” ambience is desired, a gold reflector is often employed.

Cool light is inclined to enforce analytical, matter-of-fact themes. Warm light tends to add notes of comfort and safety to an image. When an image is infused with light from a colored reflector, it tends to look less realistic and more artistic—especially if the colored hue is pronounced or unnatural. Different colors convey different moods. When reflecting colored light onto a subject or into a scene, consider its thematic and aesthetic effect. Select a hue that amplifies the desired look and feel of the image.

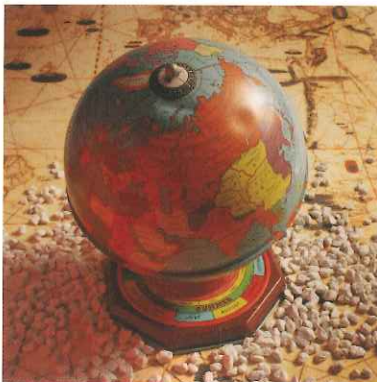
A silver reflector, placed out of frame to the left, casts cool (slightly bluish) light onto the globe and the rocks beneath. The effect could be described as “text-book,” or analytical.



Here, a gold reflector is used (note the warm hue of the stones beneath the globe). Though only subtly different than the scene before, the look is now noticeably more inviting and comfortable.



This scene gets its reflected light from a sheet of glossy red paper. Less natural than gold, silver or white, colored hues can be used to impart artistic, dreamlike, futuristic or fantastic notes to an image.



Whenever possible, thoroughly explore lighting options before deciding which set-up illuminates your subject or scene to its best thematic and visual effect. The images on this spread demonstrate some of the variables in lighting direction a photographer might explore when deciding how to present a subject most effectively.

*Seek a lighting configuration that shows off the form of your subject; one that casts shadows that are neither too dark nor too light (a judgment call depending on the effect you are after); and one that gives visual dominance to the main element(s) of your composition (SEE VISUAL HIERARCHY, PAGE 94).*

When looking for an effective lighting arrangement, be patient—this is often a time-consuming (and sometimes frustrating) process. Snap pictures whenever you achieve a successful set-up, and then experiment with other lighting configurations—after all, you're not paying for film costs and the best solutions are often those that arise after you *thought* you had a clear winner.

SEE PAGE 288 FOR ANOTHER DEMONSTRATION OF LIGHT, MULTI-LIGHT AND REFLECTOR EXPLORATION.

Light is bounced off the ceiling directly above the figure. A clean and sharp image, though not particularly dramatic.

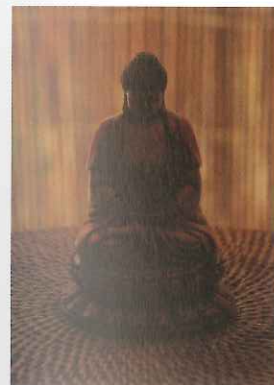
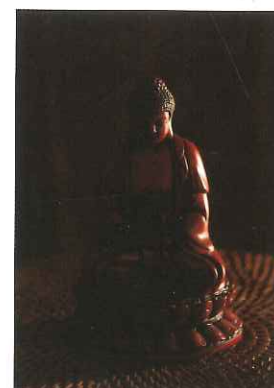
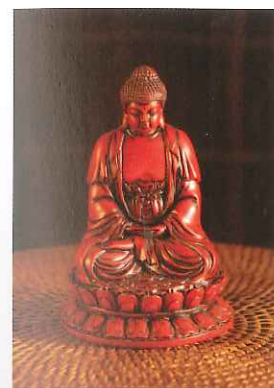
Here, light is aimed from next to the camera. More stark than beautiful; more contemporary than classic.

Light is aimed at the side of the figure and away from the backdrop. The strikingly lit subject now stands out boldly against its surroundings.

Drama is heightened by the extreme angle of this side-lighting arrangement. Note that no reflected light has been added.

Light is aimed at the backdrop rather than the figure. The result is meditative and mysterious.

How about trying something completely different? Here, a candle provides the only source of illumination for the scene.





One light plus a reflector is often adequate to effectively illuminate a studio shot. Additional lights may be called for if a subject is too large for one light to adequately cover, or if reflectors cannot redirect light to certain areas of a scene.

When using two lights, try aiming one at the subject and one at the backdrop; see what happens when one light is aimed directly at one side of the subject while another is aimed toward the other side; experiment with different levels of diffusion for each light (SEE DIFFUSED LIGHT, PAGE 272); change the hue being cast by one or both lights by applying a colored gel or a piece of colored glass to the light(s); try employing different types of lights—consider using a spotlight or even a flashlight as a secondary source of light (SEE THE TOPMOST IMAGE ON PAGE 53 FOR AN EXAMPLE OF FLASHLIGHT USE).

As with any lighting set-up, explore options thoroughly before settling on a favorite. Pay attention to the shadows being cast (*Too light? Too dark? Getting in the way of other subjects?*) and the degree to which the main subject stands out from its backdrop and other elements in the scene.

One light is shone directly at the backdrop while a diffused light is aimed from the right of the subject. A solution that shows off the bike's form nicely and neatly separates it from the backdrop.

Same set up as before, except that a note of drama has been added by placing an orange gel over the backdrop light. I swept water onto the floor to add reflections and a measure of richness to this set of images.

One light is aimed directly at the backdrop, and the other at the floor in front of the subject. Direct light casts harsher shadows than reflected or diffused light. Note the contrast between the relatively "soft" look of the motorcycle and its starkly lit backdrop.

And why not explore a few off-beat solutions while you've got your camera out of its bag? Here, a light itself has been given center stage. SEE DEPTH OF FIELD, PAGE 306.



Light that is aimed straight at a subject is known as *direct* light.

Light that is shone through a diffusion panel is called *diffused* light. Light that is bounced off a reflective panel or a photographer's umbrella is also considered diffused. SEE AFFORDABLE LIGHT, PAGE 258, FOR EXAMPLES OF A DIFFUSION PANEL, REFLECTOR AND A PHOTOGRAPHER'S UMBRELLA.

Diffusion lessens the contrast between lit and unlit areas of a scene—softening the edges of shadows and decreasing the strength of highlights throughout the image.

*A comparison between the effects of direct and diffused light are featured on this spread. Look closely at each of the samples: The differences between them are subtle but significant. Each of the images could be considered “right” or “wrong”—it all depends on the look and feel being sought.*

Direct light. Here, a single 500-watt quartz bulb has been aimed directly at the subjects. Notice the stark shadows on the front of the wooden crate.



In this shot, a diffusion panel was positioned near the light. The shadows are noticeably softer in this image than before.



And here, the diffusion panel was positioned farther from the light source and nearer to the subjects. The resulting shadows are now quite subtle.



**Avoiding blur.**

The amount of time that a shutter has to be open to capture a specific image depends on several factors: the type of lens being used; the quality and quantity of light bouncing off the subject; the camera's aperture setting; the relative stillness of the subject; and the stillness of the camera itself.

Most digital cameras do a good job of automatically evaluating the amount of exposure that will be needed to properly capture a shot. Sometimes, however, this means that the shutter will need to be open for longer than it is possible to hold the camera perfectly still. When this happens, the result is usually a blurred image. To achieve a crisp shot under conditions such as these, the photographer needs to find a way of steadying the camera.

**'Pods.**

**Tripods** are the most common devices used to steady cameras and they come in all kinds of sizes and configurations. Sturdy, highly adjustable models are often used in the studio; lighter versions are designed to be collapsed and carried; mini-tripods are small enough for tabletop use with a pocket camera.

A monopod (not shown) is like a single collapsible leg from a tripod that has a



mini-tripod

camera mount on top. Monopods are not as stable as their three-legged cousins, but they do provide a footing that enables the camera to capture shots that would be impossible without some sort of steadying device. The extremely portable nature of monopods makes them a favorite of many photographers who do a lot of shooting on-the-go.

**Improvisation.**

If you find yourself in a situation where you want to take a low-light, non-flash picture, and have no tripod or monopod on hand, try methods such as these to capture a sharp image: **Brace** the camera and your shooting hand against a wall or sturdy object as you take the picture; **press** your elbows down on a table as you hold and aim the camera; **set** the camera on something solid like a rock, table, book or drinking glass and use the camera's **delayed shooting function**. (This will avoid any shaking that might occur if the shutter button is manually pressed as the picture is taken.)

lightweight tripod



Unless you are using special equipment, your low-light images are likely to come out as blurred, abstract representations. Take heart: This is not necessarily a bad thing. The semi-abstract look of this kind of semi-accidental shot often works nicely to convey the essence of darkness and late hours.

Nighttime is a great time to explore non-traditional photography techniques. It can be difficult to predict what the outcome of low-light shooting will be, so review your images on the camera's LCD as you work and keep your eyes and mind open to unexpected and pleasant surprises.

Also, learn to see the potential of imperfect photos taken under difficult conditions such as these: Image-enhancement software might be able to save the day (or night).

*Cameras vary in their ability to capture low-light images. If you are unsure about what yours can and cannot do, check out the manual to see if certain settings can be utilized to maximize its capabilities and/or to achieve special nighttime effects. SEE ABSTRACTION, PAGES 230-233; LIGHTPLAY, PAGES 226-229; AND SHAKE IT, PAGE 242.*

The photographic "imperfections" that occur in dim light can work to your advantage—resulting in photographs of intriguing obscurity. Amplify contrast and colors using software if your nighttime images need a post-shooting tune-up.

*I enjoy using the "nightshot" mode on my old Sony pocket digital camera. The resulting images are similar to the view through a pair of night-vision goggles and convey a gritty quality of after-hours voyeurism.*

*I chanced upon this contemplative scene while waiting for a stage performance to begin. The shot was taken under conditions of very low light using a digital camera with a "fast lens"—one that is able to take in light very efficiently. FOR MORE INFORMATION ON LENSES, SEE PAGE 322.*



Most of the time, photographers use light that comes from in front, or the side, of the subject they are shooting.

Be sure to consider backlighting alternatives as well when you are looking for distinctive ways of lighting images of people, places or things—the results can be refreshingly unique.

*Backlighting is any lighting arrangement that puts the subject between the camera and the light source.*

When using backlight as the primary source of illumination for a scene, you may need to reflect or shine a small amount of light onto the front of your subject as well—unless you want the subject to appear as a silhouette.

Keep your eyes open to examples of backlighting in the photographs you see. Mentally catalog the visual effects of these images so that you can apply them to your own backlit shots in the future.

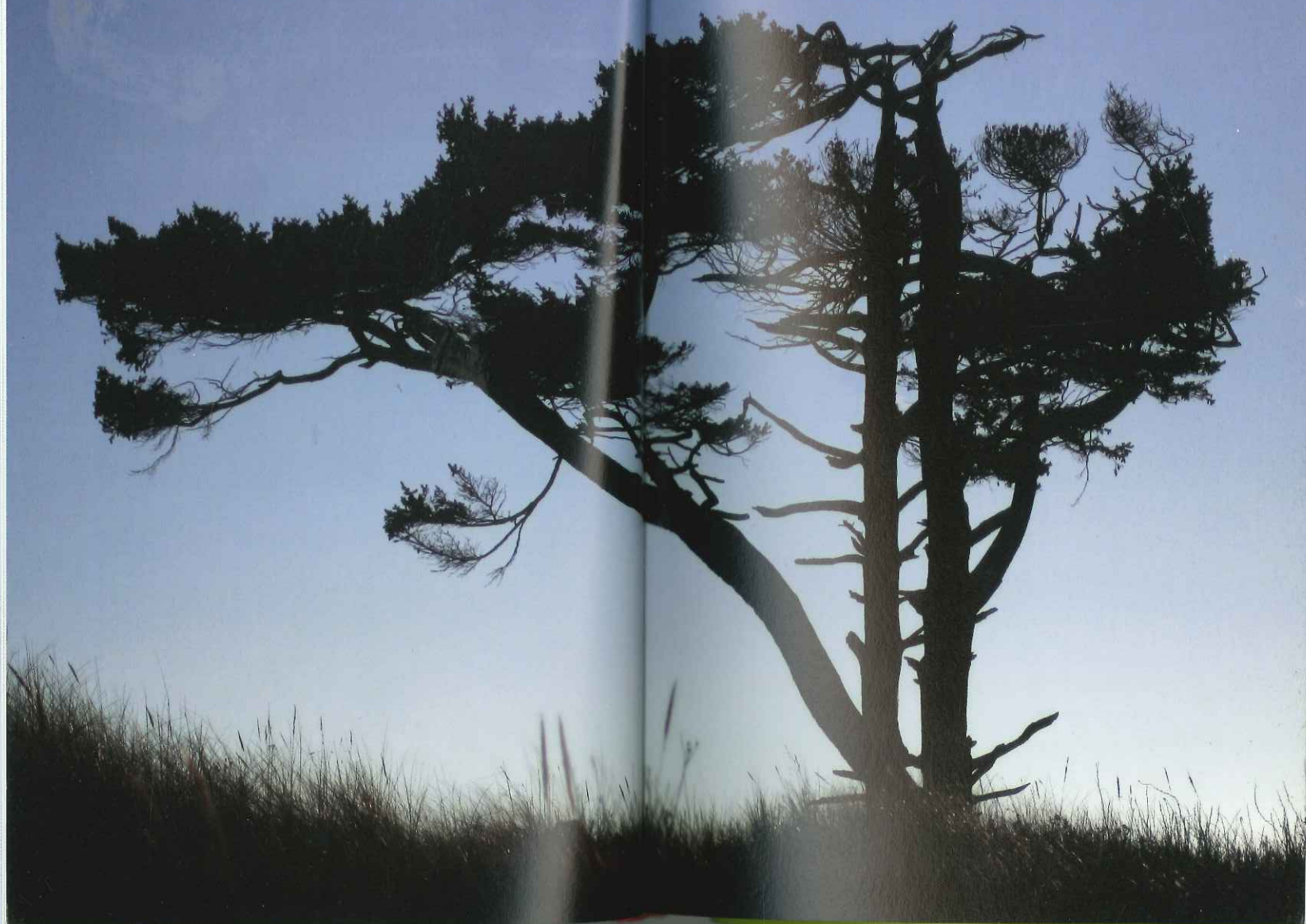
*I chanced upon this dramatic example of backlighting at an Italian restaurant. An unseen candle shines through a bottle of olive oil while casting direct light on the wall behind.*

**Natural backlighting:** The embroidered flowers within the folds of these lace curtains are illuminated from outside the window. The resulting effect is subdued and contemplative—the viewer seems to be placed inside the room from which the picture was taken.

Here, a quartz light was aimed at the back of a thin sheet of handmade paper hung behind a stack of jars. The lighting in this scene does little to reveal the jars' contents—images such as this can be used as “visual bait” for a text that gives more information. SEE **IMPLYING STORY**, PAGE 244.



Backlighting on a larger scale: The beautifully complex form of this oceanside tree is put into silhouette by the evening sky.



If you have access to a light table, you might want to investigate its potential as a photographic light.

*Experiment by placing transparent, translucent and opaque objects on the light table. See what happens when the light table is the only source of illumination for your subject. Explore the effects of simultaneously using a light table beneath your subject, and a regular source of light above it.*

Sometimes a photographer or artist needs to capture an image of a complex subject without any shadows or background present. “Knock-out” images such as this are often seen as graphic elements in designs or layered digital compositions. It would be very difficult to digitally remove the background and shadows from a subject as complex as this decayed leaf if the original photo was taken using a traditional overhead light. To make the job of background and shadow removal *much* easier, the leaf was lit from beneath using a light table and from above with an ordinary incandescent light. ▶

These halogen bulbs were placed on top of a textured glass block, which was then set on a light table. The light table provided the only source of illumination for these subjects—the highly reflective surfaces of the bulbs themselves distributed the light throughout the scene. The effect is modern and eye-catching and only took a few minutes to set up. ▶

Note: If the light table you are using has fluorescent tubes, you might want to adjust the WHITE BALANCE setting on your camera to compensate for the cool hue cast by this type of light. SEE **WHITE BALANCE**, PAGE 320.



*An excellent and versatile way to add light to a scene or subject (especially if it is a tiny one) is to use a flashlight or a keychain-style (piezoelectric) light. These light-sources are cheap, portable and a lot of fun to experiment with.*

Flashlights can be used as the only source of light in a scene—as with each of the examples on this spread. They can also be used in addition to other lights to fill in dark areas of a setting or to add accent highlights to a subject (SEE THE IMAGE OF THE WASP ON PAGES 28-29; NOTE THE BLUE HIGHLIGHTS ON ITS WINGS).

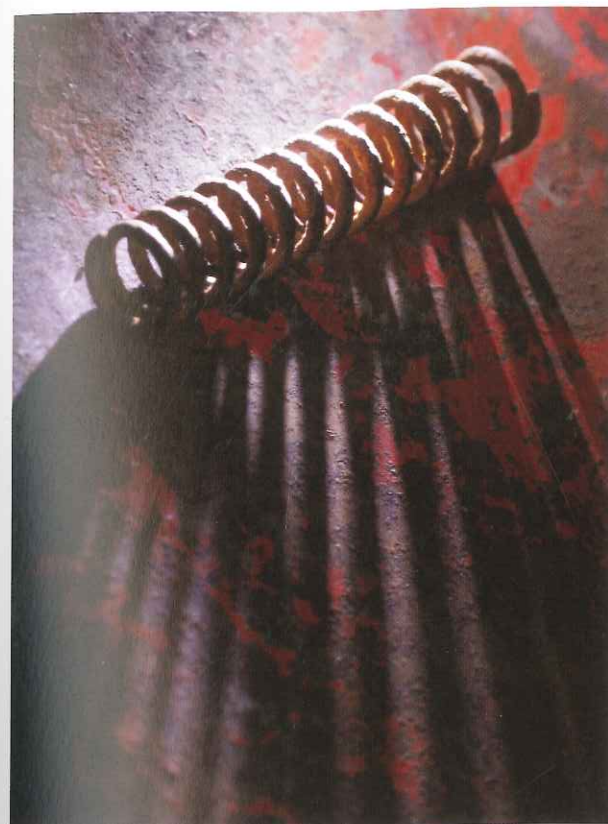
The light produced by most flashlights is relatively weak; you will probably need to secure your camera to something solid when shooting—otherwise your photos might be blurred. SEE STEADYING THE CAMERA, PAGE 274.

An intriguing composition of form and light is created simply by aiming a keychain light from surface-level at an old metal spring. I used a tripod to steady the camera for this low-light shot.

*This old spring (and the weathered sheet of painted metal beneath it) both came from a secondhand building materials store. I get a lot of my props at outlets such as this: The goods are inexpensive and they come with a built-in history of wear-and-tear.*

A tiny flashlight was aimed through the middle of the small metal spring to produce this effect. A digital SLR fitted with a macro lens captured the micro-detail of this tiny subject. FOR MORE ABOUT MACRO LENSES, SEE PAGE 323.

This contemporary-looking effect was achieved using a technique known as “painting with light.” To paint with light, you need a subject, a flashlight, a camera whose aperture and shutter speed can be manually controlled, and a tripod. Aim the camera, atop a tripod, at the subject; darken the room; close the aperture as far as possible (its highest f-stop number) and set the exposure for about 10 seconds. Now press the shutter button and then use the flashlight to freely illuminate the subject/scene until the shutter closes. The results—though impossible to accurately predict—often contain beautiful surprises. Review your images as you work and make adjustments to the exposure time and your flashlight technique until you start seeing results you like.





A flashlight can be used to put tiny subject matter into a spotlight that matches its scale.

Try this exercise sometime: Choose a favorite small subject such as a toy or keepsake and set it up in a room where you can shut off the lights. Secure your camera to something solid so that it will hold perfectly still while shooting and aim it at your subject (make sure that the flash on your camera is turned off so that it won't automatically fire under these low-light conditions). Use a flashlight as a mini-spotlight to illuminate the subject—try varying the height and angle of the light to see how it affects the scene. To avoid shaking the camera when the shutter is pressed, you may want to use your camera's timer mode when shooting (this also gives you a few seconds after pressing the trigger to fine-tune the aim of your flashlight). SEE FLASHLIGHTS, PAGE 284, AND STEADYING THE CAMERA, PAGE 274.

*A friend's glass-mounted collection of bugs made perfect models for my own mini-spotlight series.*

Here, the spotlight is shone from beneath the glass to highlight the beautifully translucent wings of one subject.

In this photo, the flashlight is aimed from a low angle to spotlight the featured insect and cast dramatic shadows all around.

Extreme light, extreme shadows. Here, a striking effect is achieved by directing the flashlight's beam harshly upon the central subject—intentionally overexposing the insect's shell while casting a gigantic shadow on the sheet of paper below. SEE INTENTIONAL OVEREXPOSURE, PAGE 312.



When setting up the lighting for a shot, be prepared to spend ample time exploring options before you settle on a favorite solution. *A subject is not ready to be photographed until it is properly lit.*

This spread demonstrates some of the lighting and reflection variables a photographer might explore while preparing to photograph a scene.

If the lighting for a shot is complicated, you may want to take photos of the set-up itself while you work. You can then refer to these images later on if you want to return to an earlier light/reflector configuration.

Indirect, ambient light coming from many directions results in a “flat” image. This effect is not usually your best bet, but might be appropriate if the final result is meant to be low-key or intentionally bland.

A direct source of light, aimed at the subjects from above, adds dimension and drama to the scene.

Lowering the light source lengthens the shadows dramatically. Light is bounced onto the subjects from an (unseen) white reflector placed to the left of the scene. The reflected light helps define the shape of the jacks and softens the shadows slightly.

The center-of-interest is moved forward by concentrating the light in the foreground. An artistic touch is added by reflecting light from a sheet of red paper onto the subjects.

The blue hue cast by a keychain light (aimed from near the camera) further amplifies the artistic effect of the image. The unseen sheet of colored paper continues to provide red accents from the left.

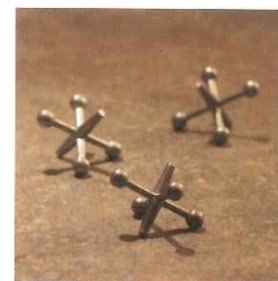
A bold effect is created by removing the reflector and aiming a single source of light directly at the subjects.

Here, another low angle of light is explored; this time with the red reflector back in place. This is a strong effect that presents the jacks in a clear and striking manner.

This image was “painted with light” to achieve a contemporary effect unlike any of the others.

SEE **FLASHLIGHTS**, PAGE 284, FOR MORE ON THIS TECHNIQUE OF LIGHTING A SCENE. ALSO SEE **INTEN-**

**TIONAL OVEREXPOSURE**, PAGE 312.



It is almost always best to avoid the kind of “flat” lighting seen in this photograph. Here, one light was aimed from next to the camera, and the other was directed from behind the egg. Together, the two lights cancel out most of the form-defining shadows that could have given this image the feeling of dimension and depth it lacks.



*Go on, try it for yourself. Place an egg on a white sheet of paper and take its portrait. Use whatever light and reflector sources you have at your disposal. Be patient and learn some lessons about illumination and form as you experiment with solutions—lessons that can be applied to all kinds of real-world subjects and scenes.*



An off-topic suggestion: Play with your props once you are done taking the pictures you were supposed to take. Often, this is when the really interesting photos are taken.

This image of a smashed egg also serves as a reminder to collect your own stockpile of visual metaphors for use in various projects (commercial or otherwise). SEE **BEYOND THE OBVIOUS**, PAGE 202-205, AND **METAPHOR**, PAGE 246.



Your on-camera flash can be a useful—though limited—picture taking aid.

In reality, most experienced photographers rarely use their on-camera flash. One reason for this is that the color of light added by the flash is rarely in-sync with the prevailing light in a scene—flash images tend to have an unnatural look. (Hint: One way to compensate for this color-related issue is to convert your flash images to monochromatic color schemes—as seen in the samples on this spread. SEE GRAYSCALE ALTERNATIVES, PAGE 340.)

Another downfall of on-camera flash units is that the flash itself is positioned near the lens and is aimed straight at whatever you are shooting. This tends to overexpose the main subject, cast harsh shadows, and eliminate the naturally occurring shadows that would otherwise describe the subject's form. When experienced photographers take flash photos, they generally use an auxiliary flash unit whose head can be aimed at the ceiling or a wall. This “bounce-flash” technique eliminates or reduces the problems described above.

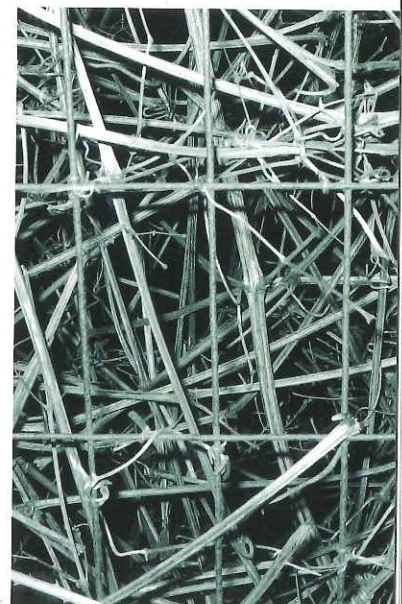
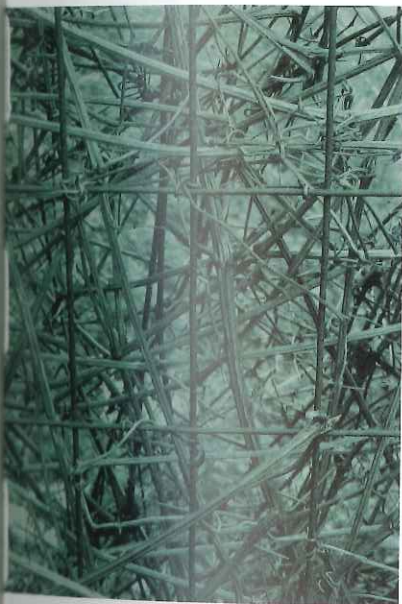
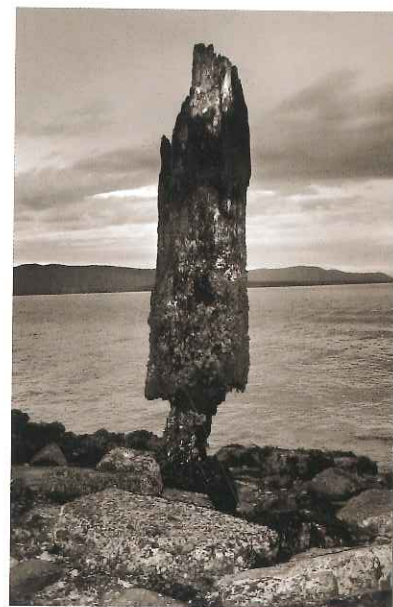
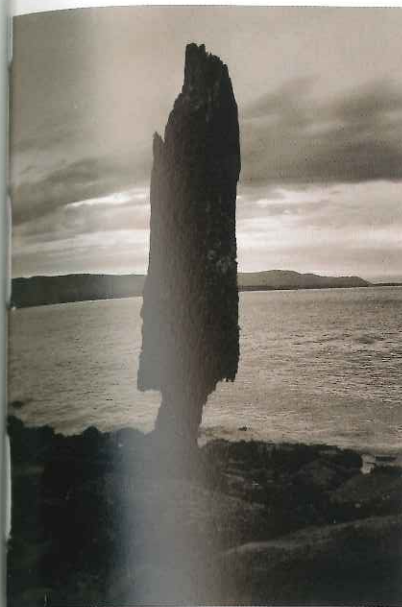
*Still, all of this does not mean that your on-camera flash needs to go to waste. This spread and the next suggest a few practical uses for it.*

Fill-in flash. *When I first tried to photograph this decaying seaside post, the subject came out as a dark silhouette. This is because the camera was automatically selecting an exposure that would properly record the bright sky in the background (at the expense of the darker forms in the foreground).*

*By using the on-camera flash, I was able to illuminate the post without affecting the appearance of the sky or water behind it.*

If you are a fan of visual texture, your on-camera flash can be a useful tool. The near-image of these fenced-in brambles was taken without flash. The far image (taken with the flash turned on) shows what can happen when the flash is used at close range in dim light. In this case, the intensity of the flash caused the camera to restrict its intake of light—thus, only the brambles within range of the flash were lit.

The result was an intriguing, “flattened” visual texture.





- Your camera's flash can be used to freeze time in spectacular ways. Here, a dart has just passed through a water balloon whose pink remnants can still be seen inside the disintegrating ball of liquid (which, amazingly, has not yet completely lost the shape of the balloon). This image was captured by selecting a fast shutter speed (1/8000 of a sec.) on a digital SLR and using the on-camera flash.

This chapter concludes where it began: with natural light.

Don't let the potential complexity and expense of photographic lighting equipment overshadow the fact that many of the best photos are taken using exactly whatever light is available.

*Keep your eyes and mind open to beautiful convergences of light and subject, whether they occur naturally or are studio-derived.*

Opposite: Two unplanned images that were each lit using available window light. One was shot from inside a window; the other, from outside.

*A cozy portrait of early morning stillness: Light from the newly risen sun is just able to make it through the thick and translucent arms of a window plant.*

*Who knows what the story is in this scene—I chanced upon this devil's head on the dashboard of an old VW van parked at a trailhead. The light and reflections throughout the scene could not have been more perfectly composed and varied if they had been planned in a studio.*

