May 2011 **4-H/Photography/2011-02pr**

Indoor Photography

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Photography is the science of recording light in an artistic way to create a pleasing image. Indoor photography requires a photographer to become familiar with some of the built in functions of a camera. It also requires additional knowledge of the properties of light, both natural and artificial light. Indoor photography can allow for more control of the light in many instances; however, management of light becomes vital.

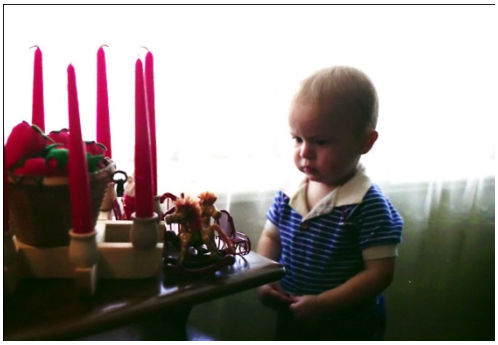
Lighting Options

Natural Light

Indirect, natural light has the potential to provide excellent artistic opportunities. Some buildings are designed to let in a lot of light. This can sometimes create a very good artistic setting as the light is high quality, and doesn't create harsh shadows. If the photographer is steady, the subject is relatively calm, and the shutter speed is no slower than 1/30 of a second then sharp photo images are possible.

When shooting photographs with slower shutter speeds the photographer and the subject must hold still or blurring may occur. A tripod may be necessary. However, it is also possible for blurring to add to the overall effect of the photo.

In a dimly lit room, placing the subject near an exterior window can help to create an interesting effect. The soft shadows and subdued light may provide just the right lighting. Using the window as a backlight may also create an interesting effect. Look for those opportunities.



Figures 1 & 2. These photos show ways light from windows can enhance the picture.

Artificial Light

Artificial light, or man-made light, does not typically have the broad spectrum of natural light.

This can unbalance the colors in a picture. It is possible to correct color problems with filters or a good quality flash.

Nearly all cameras have a built-in flash. A flash provides a brief artificial light source that is used to illuminate dark areas when the camera takes a photograph. Many cameras have several functions that regulate the flash to improve the photo.

Though a dimly lit room may not seem out of the ordinary to the human eye, it can cause underexposure of a photo and the colors will not be very vibrant. The flash is the easiest way to compensate for the lack of light in a dark setting. When used properly, it enhances the subject and makes objects more recognizable. It also makes it possible to shoot at a higher shutter speed in a dim environment, which reduces the likelihood of a blurred subject.

Figures 3 & 4 illustrate the difference a flash will make when shooting in a dark environment. Both photos were shot at the same time in automatic mode.

Figure 3. This picture was taken in a dark environment without the flash.

Figure 4. This picture was taken in a dark environment with the flash.

The first rule of flash photography to remember is that if the subject is not within 15 to 25 feet of the camera, the built-in flash on most cameras will have no effect on the photo. It only works at close range. Some cameras do have the ability to do a slow flash which can help to illuminate subjects that are farther away.

Another important point to remember with flash photography is that the harsh light can flatten the image, making the photograph less appealing.

The remainder of this fact sheet will discuss some of the problems you may run into with flash photography.

- red eyes
- shadows
- glares on photos

Red Eyes

Often a flash will produce unattractive “red eyes” in human and animal subjects. This occurs when pupils are dilated and the light reflects directly off the retina of the subject. The back of the human pupil contains cones that when hit with a bright light, reflect a red color. An external flash directed into the pupil leads to the “red eye” effect.

Figure 5. This image shows a subject with red eyes due to a flash hitting directly into his pupils.

The most effective way of reducing the red eye effect is to increase the light in a room. It is almost always better to solve the “red eye” problem while shooting the picture, rather than adjusting after the picture is downloaded to a computer.

When it is not possible to adjust the light in a room and a flash is necessary, there are several options to consider. Some cameras have “red-eye reduction” modes. The flash shoots prior to the camera taking an image so the iris can adjust, and later alters the photo internally if red-eye is detected.

Figure 6. This camera has a mode designed to reduce the “red eye” effect when using a flash.

Another option can be used when a flash is mounted to the camera. Most external flashes are capable of tilting up and reflecting off a ceiling or other surface. This ensures that the light does not shine directly into the eyes. Artificial lights around the person also can be used to achieve this, but they usually are bulky and cannot be used in places other than a studio.

Figure 7. Many mountable flashes can tilt up and can reflect light so it appears much softer.

A third option is to take the picture of the subject with his or her face turned slightly. Since the light is not reflecting off the back of the pupil, “red eye” will not appear, such as shown in Figure 8.

Figure 8. Turning the eyes away from a flash helps eliminate “red eye” in photos.

Most basic photo editing software programs also have a “red eye” reducing function. However, the pictures will almost always be better quality if the problem is avoided while shooting the photo.

Shadows

Shadows can add to the desired effect of a photo, but they can also be a major distraction. Shadows are typically a problem when there is only one light source, especially from a flash mounted on the camera.

Figure 9. The light from the flash causes shadows to form behind this man.

To help solve the shadow problem you might consider adding another light source at a different angle from the primary light source. Bouncing the flash off a ceiling or wall, putting an extension cable on an external flash may be another solution. A diffuser on the flash can also help to soften the shadows.

Glares on Photos

There are times when a glare can be used to enhance a photograph. However, this is typically more the exception than the rule. When it is possible, don't use a flash in a way that it becomes a direct line of light. It is better to adjust the light to come from an angle onto a subject like the sun does from the sky in the morning or evening. This can be done by rotating the flash up and reflecting it down with a white attachment or card if the flash has this capability. (See Figure 4.) A reflected flash creates a soft glow rather than a harsh glare that will cause an unattractive look such as in the photo below.

Figure 10. The direct light onto a shiny surface gives this photo an unattractive glare.

Conclusion

Indoor photography is often hindered because of a lack of enough lighting to bring out the brilliant colors in subjects. Using a nearby window can help improve light quantity and quality. Usually, the flash is the easiest way to compensate for the lack of light if a subject is within 15 to 25 feet. However, if it is not used correctly it can lead to unattractive "red eye," shadows or glares.

Studio lights are also helpful, but can be bulky and not practical for every occasion. Most modern cameras have settings to increase indoor lighting flexibility. When possible a flash should not shine directly onto a subject. An external flash may provide the capability of bouncing the light off of ceilings, walls, or other reflective surfaces.

References

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