Digital Photography Tips

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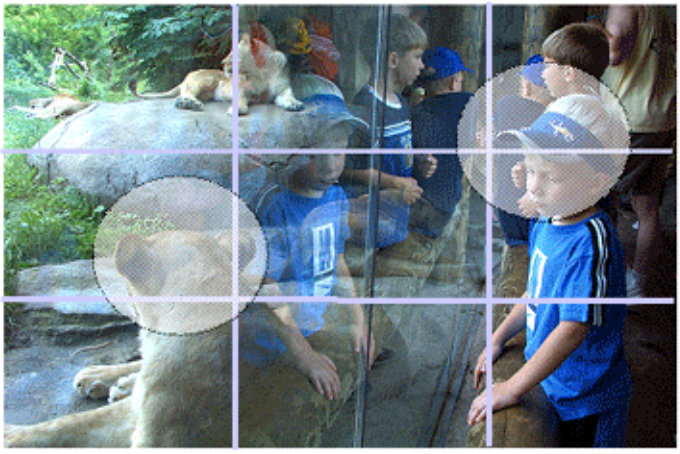
Rule of Thirds

Divide the frame into thirds by imagining lines across the photo. Place the subject or diagonal lines at these points.

Notice the boy's head in the upper right, the lion's head in the lower left and the peacock's head in the upper left.

Framing

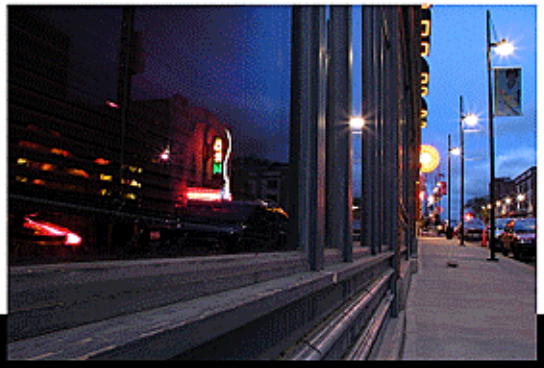
In most cases, photos will be more interesting if the subject is NOT in the center



Diagonal Lines

Diagonal Lines

Diagonal lines can help provide perspective giving the illusion of depth to two dimensional images.



Foreground

Foreground

Foreground helps provide perspective to two dimensional images. Try placing the foreground using the rule of thirds.

Notice the blurred backgrounds.

Depth of Field

Aperture settings affect the depth of field of the photograph. The higher the number, the more items are in focus.

These photos were shot with a smaller f-stop number. The smaller the number, the more open the aperture and the less depth of field.

Filters

A *polarizing filter* helps remove glare from reflective surfaces like water and water vapor in the sky. In the left photo, the result is less glare from ripples in the water. Other benefits include bluer skies and brighter colors.

A *graduated neutral density filer* is darker at the top fading to lighter at the bottom. This allows the foreground to come through when the sky is bright (see right).

How low can you go with ISO?

Film speed (also known as ISO) describes the film's sensitivity to light.

For digital camera's, the ISO setting (using a film camera metaphor) provides the user with the ability to adjust the image sensor's sensitivity to light.

As a general rule, shoot the lowest speed film (or use the lowest ISO speed on your digital camera) as you can.

Lower ISOs are less prone to grain/noise and are capable of making much nicer large prints.

Shooting objects that might move will likely require a higher ISO choice if you want to maximize depth of field.

Shutter Speed, Aperture and ISO

High ISO = less light needed

Less light is required to properly expose the picture as ISO increases (given that aperture and shutter speed stay the same). Higher noise and grain is present at higher ISOs so it is usually preferable to shoot at as low an ISO setting as possible. For example, 1000 speed film can be used in dim light; but will likely appear grainy.

Small aperture (high f-stop #) = more depth of field = more light needed

The amount of light required and the depth of field increases as the aperture gets smaller (higher f-stop #).

High shutter speed = moving objects in focus = more light needed

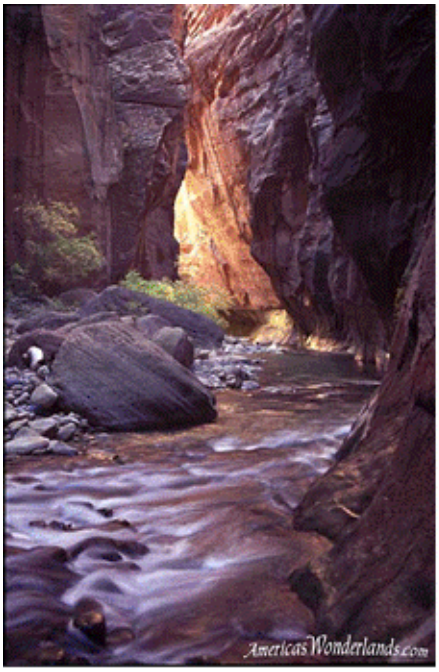
As the shutter speed gets faster, the more items in motion will be in focus. Faster shutter speeds require more light thus requiring the user to open up the aperture (lower f-stop # which reduces the depth of field) or shoot at higher ISO settings (which increases noise/grain).

Shutter Speed, Aperture and ISO

The relationship between shutter speed and the amount of light reaching the film/ccd is linear. If the shutter speed is increased by two times, it will cut the light in half.

For each full-stop change in aperture, the light is roughly doubled or halved. Some cameras allow for incremental aperture adjustments resulting in less than a full doubling or halving of the light. Common f-stop #'s include: f3.9, f5.6, f8, f11, f16, f22. Changes in one of these settings to another is a full stop.

Common ISO choices include 64, 100, 200, 400, 1000. Each change is roughly a doubling or halving of the needed light.



Using A Tripod

Using A Tripod

A tripod is critical to quality, low light photography. It also enables the use of low ISO settings and extended exposure times to create effects.

Top: dimly lit canyon.
Far left: falling water blurred.
Left: shot under full moonlight.

The downside of slides:
-not as easy to view or handle as prints.
-Not as many places print from slides
-More expensive per print; but not as many prints are made.

If using film, try slides.

Tired of inconsistent results from the lab?

Slide films such as Provia 100f, Velvia (iso 50), Kodak Elite Chrome, Kodak Elite Chrome Extra Color, Kodak E100vs are all saturated color transparency films that produce very nice results.

Photographers using slides will know exactly what the print is supposed to look like and get consistently better results than with print films (especially if using a photo lab).

Digital or film?

Anyone considering the purchase of a new camera should consider going digital.

Digital Benefits:

lower ongoing cost (no film cost, print only what you want)

Immediate feedback and correction (increases chances of coming home with a good shot)

Tendency to take more photos (resulting in more good photos) and enjoy it (not worried about waste). Tendency to go out picture taking more often.

Flexibility with the images (e.g. make corrections, build panoramics, etc)

The digital darkroom opens up a whole new world of opportunities. The film camera will still come in handy for specialized work; but favor is rapidly giving way to digital.

Digital or film?

Anyone considering the purchase of a new camera should strongly consider a digital.

Digital Drawbacks:

noise (equivalent of film grain) is more apparent with some models

a relatively high mega-pixel count is needed for big prints (see Interpolation page for comparison to film)

Digital SLRs are very expensive. Film SLR users may not see features they're used to on affordable digital cameras or the quality of lenses and accessories.

Users will want to buy more computer equipment and software to support their new abilities (I.e. printer, cd burner for storage, editing and specialized software).