Topic 019

Indoor lighting - basics

BOUNCE IT: Flash is a great tool, but it creates hard and contrasty light. When mounted to a hot-shoe or built into the camera, it produces flat light and dark shadows behind the subject. To create a softer look, aim the flash at a white ceiling to bounce a soft light onto the subject. If you're using a point-and-shoot with a built-in flash you can't do this, but there's a compromise. Move your subject away from the wall and turn on all the room lights. The farther away from the wall you position the model, the less the effect of the dark shadow. Having all the lights in the room switched on will help fill in surrounding shadow areas softening the contrast.

DIFFUSE IT: Bright overcast conditions are superb for photographing people. Light from the sun is softened and it creates an even and easy light with which to work. In that light from a flash is harsh and contrasty, placing "a cloud" over it softens its quality. This is accomplished with the use of an auxiliary diffuser. They attach to the front of your flash and are available at most camera stores. They come in different sizes to fit different flashes and are fairly inexpensive.

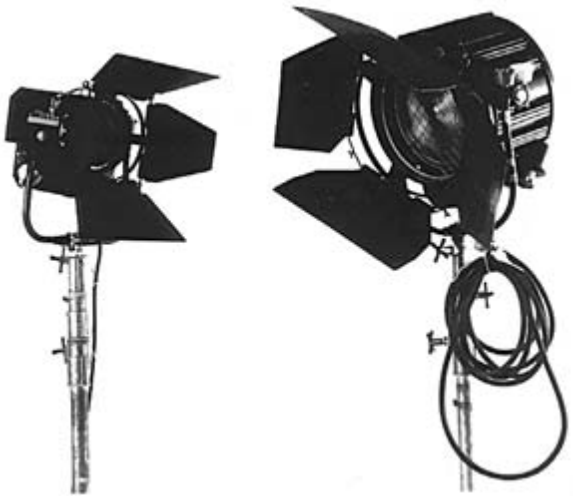
COME TO MY WINDOW: North facing windows or those not exposed to direct sun make wonderful light sources for portraits of people, flowers, or still-lifes. Although the light is soft, you can enhance or lessen the contrast a couple of ways. The closer the subject is to a window, the greater the contrast between the shadows and highlights. Move the subject away from it to soften the effect. Another way to control contrast is through the use of reflectors placed on the shadow side of the subject. A silver reflector bounces a lot of light. A white one reflects less. Gold reflectors provide a warm glow and make the image more romantic.

MIX IT UP: Window light, flash, and tungsten light each have their own characteristics. Experiment and combine any two or all three. At different ratios, the results can be quite unique. A portrait shot with window light as the primary source can be combined with light from a tungsten lamp to produce a yellow, orange fill. Play around and have fun.

Studio Lights

Studio lights tend to be bigger and more powerful than portable lights. They're less transportable. They're mounted on heavy stands, often on wheels so they can be shifted around with ease, or they're attached to a lighting grid overhead.

Some basic grids are an arrangement of fixed poles. In order to move lights around, you have to get up there on a ladder, undo them and reattach them somewhere else. Better grids allow the light-bearing poles to be moved forward and backward on tracks, and they have some diagonal movement as well. Really great grids are computer controlled and have motor driven batons which will lower the lights down so the globes can be changed from floor level.



Safety Chains

No matter what type of lighting grid you have, every single light which is attached to it should also be attached by a safety chain. Lights are very heavy; it's easy for one to slip out of the grip of someone who's trying to detach it, or move it to another spot, or reattach it. And a poorly attached light might lose its grip with no warning. A falling light could easily crack the skull of someone down below.

Adjusting the Lights

Sometimes grid-mounted lights can be adjusted from floor level using a long pole. The pole has a little hook on the end of it which slips over a thin metal bar inside each large colour-coded adjustment knob on the sides of the light fixture. One knob is for tilting the light, one is for panning it, one is for focus (spot or flood), and one is for turning the power off and on.

Changing Globes

Usually the lights are wired up so their power can be turned on from switches down below at the lighting patch bay. Still, you'd always turn the power off at the light **and** unplug the light if you were going to change the globe. Who knows—once you're up on the ladder, with your hand in the light, someone else might come along and start flipping switches at the lighting controls below, quite unmindful of your predicament. Of course, you'd use the same procedure as changing the globes of portable lights. Never touch the globe with your fingers—always handle it in its tissue wrapper. Some places only allow the technical staff to change the globes of the grid-mounted lights.

Moving the Lights

Because lights are so heavy and difficult to move, studios usually have them set on the grid in an arrangement which suits their major usage patterns. It's best to think carefully about how you can use the pattern that's there before you launch into undoing the lights and rearranging them.

Sometimes you can get that one additional key light you need by setting up a redhead on a floor stand, rather than pinching lights from the back area of the lighting grid. On the other hand, sometimes you really do need to do a major rearrangement. You should have helpers to do this.
Some people don't like being up ladders. It's possible to get a ladder type structure which has a secure standing platform on the top of it, with a surrounding guard rail. If a studio has one of these it lets more people learn about lighting and contribute to it. When removing a light from a grid, it's a good idea to have a person waiting at the bottom of the ladder to grab the light from you, so you can descend safely yourself. Just make sure they're **never** standing beneath the light, in case you lose your grip on it! When you disconnect the light from the grid, detach the main connection first, always leaving the safety chain attached till you're certain you can manage the weight of the light. When you're reattaching the light, reattach the safety chain first.

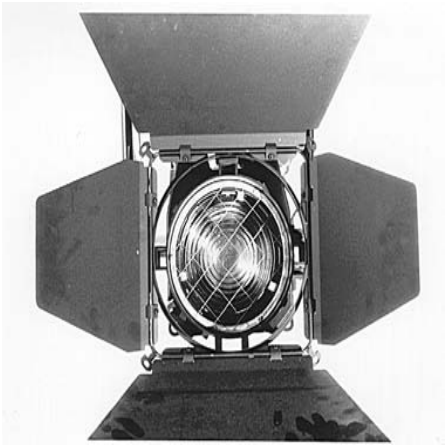
Types of Studio Lights

Soft Lights

These are large lights which use from 1000 to 5000 watts (1–5 Kw). Their globes are mounted facing giant scoop-shaped reflectors. They're good for lifting the general light level, for illuminating the background curtain or set, and for providing a soft light over a wide area. As with other soft lights, you can't spot or flood them.

Fresnel:

These are lensed lights which can be adjusted between spot and flood. Good for key lights on the subjects.



Follow Spots

These are hard light sources which provide a bright circle of light. They're used in stage and variety show performances, especially for following guest entrances, and individual dancers and singers as they move around the set.

Lighting Controls

Barn doors are hinged plates which usually come attached to a circular ring in sets of four: two rectangles and two trapezoids. They attach to the front of light heads. By moving them in and out, you can control the flow of the light beam. You can narrow it down or block it off at the top, bottom and sides. People are often puzzled about how to orient them and ask, 'Which way do they go?' It doesn't matter—do what works for your situation.

Scrim:
This is wire gauze which can be put in front of a light to reduce its intensity. It comes in different gauges of mesh, producing different results. It can make a difference of 1⁄2 to 1 *f* stop on your iris setting. It's mounted in frames to hold it straight and can be attached between the barn doors and the reflector on many lightheads.

Spun:
A soft fiberglass material which also reduces the intensity of light, and softens it somewhat

Cutter (or Black Flag)

A black piece of wooden ply with a metal stem, which is used to block light from reaching some part of the set

Gobo (or Cucaloris, or Cookie)
A cut-out stencil which can be used in front of a light to cast a desired shadow pattern, like venetian blinds and tree branches. It can also be a cut metal stencil, inserted between the globe and lens of a pattern spot.

Dingle:

Generally a leafy branch placed in front of a light, to give a broken pattern on an otherwise flat surface.

Snoot
A circular attachment which narrows the light beam for a spotlight effect. Used in place of barn doors

Dimmers:
Controls which allow lights to be gradually faded from full-on to full-off, or anywhere in between. Lights can be assigned to dimmers so they'll fade singly or in groups.

Gels:

Special coloured transparent sheets which can be placed in front of lights to change their color or their colour temperature. Unlike normal plastic, they won't melt or burn from light heat—unless they're wrongly placed so they're touching the globe.