ADVENTURES IN TELEVISION

LIGHTING BASICS

Introduction

Video is a medium that requires a considerable amount of light in order to reproduce an acceptable image. You may have noticed how television images lose detail in the shadow (dark) and highlight (bright) areas in ways that film images do not. Film can faithfully reproduce images with a big difference between the darkest shadow and the brightest highlight. We call this difference the contrast ratio. Video can reproduce acceptable images only with a smaller contrast ratio.

The aim of lighting for video is to bring the darkest and brightest areas to within that range. Basically we want to provide adequate and even light to reveal detail in the shadows without causing highlights to become too bright. In the field we have to settle for relying on our eyes and our camera viewfinders to know if we have done that.

Granted, in many field productions, lighting is not even an option, but when it is, it is an important element of video making.

In this class we will present a lighting setup called 3-point lighting. It is a basic setup, admittedly not suited to all situations and not always practical in the field. But it will introduce you to the basic concepts of lighting, as well as to our lighting kits. You will have enough knowledge to adapt this set up to your needs, and to experiment.

Three-point lighting consists in providing three main light sources:

key light, fill light and back light.

•**Key light** is the principle source of directional light falling on the subject.

•**Fill light** is a secondary and usually more diffused light that is used to fill in the shadows created by the key light. It might be more direct if the fill area is small.

•**Back light** is light from behind the subject and opposite the camera. It adds dimension and depth by setting the subject apart from the background.

The purpose of 3-point lighting is to provide *baselight*:

An adequate overall illumination to the subject for an acceptable television image. It does not necessarily provide any of the creative aspects you can achieve with lighting. It is not meant to. Adjusting it and adding to it in order to establish mood and atmosphere, or time of day, is up to you. This will be learned with hands-on experience.

The Lowell Light Kit

The Lowell kits consist of two different kinds of lighting instruments, stands, AC cords and optional accessories such as gels, gel frames, diffusers, umbrellas and various mounts.

The Omni-Light:

This small round light is an adjustable spot light. As such it is recommended for use as both key light and backlight.

The Tota Light:

This is a powerful flood light suggested as a fill light. But since it is so bright and rather harsh, it is usually best to turn it away from the subject and bounce it off a wall or ceiling or reflect it with an umbrella, or other reflector.

Gels

You can change the color of the light with gels by placing a gel on a frame which attaches to the light.

Distance

Depending on factors such as the nature of the subject, the amount of available light and the space you are working in, you will have to determine the distance of the lights from the subject. Without previous experience the best indication you have of how effective your lighting will be is the viewfinder.

Remember: you are looking for unwanted shadows as well as "hot spots," areas that reflect too much light.

Other lights

In addition to the Lowell kits there are two kinds of battery-powered portable lights.

Sunpak Video Light:

The Sunpak is a small halogen light designed for news gathering purposes. It mounts on the camera and moves a little from a horizontal position to 15 degree angle beneath that. It is powered by a rechargeable battery mounted directly to the light. In the *manual* mode the light is switched on to full intensity. Like this a fully charged battery will last between 20 and 24 minutes.

In the *auto* mode the light uses a sensor to measure the subject's reflectivity and adjusts the intensity of its beam accordingly. In this mode the fully charged battery is supposed to last between 24 and 36 minutes.

Lowell VIP i-light:

The i-light is also a small halogen battery powered light, but with several advantages. It has a 4-pin electric cord to connect it to a Ni-cad battery pack, which you can wear on your waist when the light is hand-held or mounted on the camera. The light also has a mount for attaching it to a Lowell light stand. In addition the i-light has a spot/flood focusing adjustment. The light, the battery and the mounting brackets can all be carried in the light's small grip bag.