

Available Light

By Pieter de Vries

Photographers and cinematographers alike observe light and the way it influences things. It could be harsh summer sunlight that casts strong unappealing overhead shadows, or a ray of warm afternoon light as it rakes across the landscape after a rain shower. Light, and the way it falls, sets a mood.

The challenge for the cinematographer is to be able to see and take advantage of these naturally occurring lighting conditions.

Finding the Light

Most of the time you will be working with the lighting conditions that are dished up by nature. It could also be the existing lighting fixtures that illuminate a space or a street scene at night.

In the case of interior locations, working with the available light is a very efficient way to cover sequences. It saves time by allowing you to move about and work from a number of different angles without the restriction of having to keep within areas where you may have had to place your own lights. I would like to discuss with you some effective methods for dealing with a few of the most common lighting situations.



Sunlight - Working With Existing Light

In bright summer sunlight the shadows are hard. In early morning light long shadows invite imaginative framing options and reveal striking colours that are helpful for the inherently 'flat' medium of digital video. Video cameras respond well to this light and are capable of capturing the most extraordinary images.



Cross-light

In that early morning light, shoot from an angle where shadows fall across your frame – this is known as cross-lighting. With the sun sitting to your left or right, landscapes and city skylines have increased depth and contrast.

Tip. Adjust the iris so that you are exposing the areas in the frame that are lit by sunlight - ignore the shadow areas and just let them go black. You are adding to the natural contrast created by the long shadows and will be rewarded with beautifully sharp, saturated images.

When shooting in the early morning and late afternoon light this is a perfect time to record interviews using direct front lighting. For shooting landscapes, position yourself to use cross-light.



As the sun rises higher in the sky, the advantage fades as shadows begin to fall in a far less interesting way. It is better to use backlighting and cross-lighting at this time of the day.

Cross-light and Textures

At the very start of the day or when the last of the afternoon sunlight filters across parts of the landscape, sometimes pinpoints of light become visible and form beautiful highlighted areas in the scene. These light patches will reveal detail in the landscape not usually noticed at other times of the day. This is your chance to make some magic.



Be sure to set your aperture to only take into account the lit area of the scene then pan from the unlit areas of the scene onto the lit areas (pan to reveal), finding these highlights as you do so. There is strong contrast as the images appear out of the darkness.

You will find that beautiful textures appear on surfaces as well. The trunks of trees are also good places to see the effects of the last of the daylight.

Sunrise and Sunset

It is not always suitable to carry out a manual white balance at sunrise or sunset. White balancing at these times, will "balance out" or neutralise the warm early morning colours, correcting them back to what the camera knows is "white" which means you'll be throwing away the very early morning and sunset hues that make this time of the day so appealing. (see previous issue's video article).

Directing your video camera towards the sun as it drops towards the horizon creates striking images. This angle can also be used for those times when you would like to see silhouettes against the background.



To reduce the amount of light entering the lens, employ as many camera ND filters as you can muster, set the iris so that the background is not too light and let the main subject of the shot go dark then play against the nicely exposed background.

Tip: Place your camera on the top of your camera bag to get the camera low enough to set the subject against the sky. In general, it is almost impossible for a sunset scene to be too dark. On the other hand, if it is too bright, the atmosphere and mood of the moment will be washed out. Under-exposure is preferable to over-exposure in 'video-ville'.

Using Water Reflection

Overcast or even rainy days present fabulous opportunities when you are filming near lakes, ponds or rivers, in fact anywhere there is water. It would be hasty to walk away from a water location thinking that there is nothing to shoot. Look again, you may be surprised by what you find.

At sunrise or sunset there is usually some kick in the sky – a part of the sky where the cloud cover is brightest. That broad expanse of skylight, no matter how grey, reflects in water making it a perfect time to shoot, especially when there are boats or birdlife about. You just have to walk around to find a position where the sky reflection is brightest in the water.



Tip: Close down the iris and don't be tempted to make scenes too bright - the mood of this magical time of the day could easily be lost. Close down the iris and work with textures and silhouetted shapes on the water.

Shooting Interviews

When the sun sits low in the sky, it has a soft, warm quality that illuminates in a way that is very appealing. If you want to record an interview, arrange your subject so that the sunlight is shining almost directly onto their face. Keep in mind that a small offset from the direct sunlight is needed for the comfort of your subject.

Sunlight at this time of the day fills the natural folds and creases in the face, reducing the deep shadows that are usually cast. This has a substantially flattering effect. On the other hand, the shadow cast by midday sunlight falls at a higher angle and tends to exaggerate facial lines and folds. It 'adds a few years' as they say. I know which I'd prefer if I were in front of the camera!



Backlight for Interviews

There are limits to how compact digital video cameras can handle the bright light of the great outdoors. This is because the high degree of data compression means that there is a cap on the brightest white that can be recorded. I think that we have all seen interviews that have been shot in bright sunlight and as a rule they are not pretty. Video takes no prisoners when it comes to hard direct sunlight. So how do you work around this?

Here are some tips for working within these limitations. The first thing to do is head for cover!



Under the trees

Trees provide perfect sanctuary for exterior interviews as they give filtered shade. Look for trees that let dappled light filter through.



Check out the shadows of the leaves on the ground to see what the density of the light is like. Some light filtering through is better than a complete block-out. Position your subject so that they are seated or standing with their back to the sun.

Nice things now happen: your subject's face is lit by soft indirect bounced sunlight. The direct sunlight that filters

through the leaves highlights hair and shoulders, giving subtle separation from the background. The trees or any objects in the background have the same indirect sunlight that perfectly matches the indirect light on the face of your subject. Don't be tempted to position your subject under a tree cover with dappled sunlight falling directly on the face. This may look appealing to your eye, but the camera will hate it. It may work initially, but if the slightest breeze comes up, the leaves will start to move and distracting hot-spots will fall onto the face.

Shop Window Lighting

A very easy and effective way to work in urban areas at night is to use the light from shop window displays to light your subject. Positioning them close to windows lets ample key-light from the shop window spill onto the subjects as well as the street.

Key-lighting in this case, means that light spilling from the window becomes the primary lighting source and therefore forms a natural sense of light direction and that gives shape and modelling to your subject. Be sure that you are not shooting straight into the window, but along the street so that the light falls from one side.

Be sure to adjust the iris on the camera for the part of the face where the light is the brightest. The whole point is that the atmosphere of the city streetscape at night is recorded in the image.

Look for a store that has a bright window display as it will give you very nice light to work with. In the absence of adequate shop window light, check for other areas that could be illuminated by overhead shop signs. These typically have soft diffused plastic panels forming a very handy soft-box light,

however, it is wise to make a manual white balance to subtract the green colour cast commonly found in the type of tubes used in these shop signs.

Street Lighting

Street scenes at night are one of my favourite night shooting locations as a lot of the lighting work has already been done for you. Digital video cameras are capable of dealing with the varying light levels and colour mix of overhead street lights.

If you have to film a street scene where cars are passing, I find that it's a far more dynamic option to frame the shot from a position close to the side of the road where cars pass through a pool of overhead street lights and then pass back into darkness as they exit frame. It is simply a matter of finding a street-side shooting position that will let this happen.

This is so the vehicle does not always exit the frame fully illuminated by a street light. The shot will blend smoothly into a sequence of car travelling shots. Vehicles moving through pools of street light carry the night time effect so much better.

Digital video cameras fitted with small CCD sensors (rather than CMOS sensors) do not deal with extreme pinpoints of light like those from overhead street lights. This is known as Vertical Smear and is, unfortunately, a common video artefact caused by the sensor simply not dealing with extreme bright points of light. It shows as a thin white line streaking vertically through the image – a shaft of white light from the top of the image to the bottom.

It is often noticeable only at certain parts of the zoom range so it's a good idea to experiment a little to minimise this unwanted "effect". A few people are convinced that this vertical smear is a funky StarFX filter that you may have attached to the front of the lens but vertical smear is not something that you really want.

The way to avoid vertical smearing is to do your best to exclude the source of the light in the frame or use a camera that has a CMOS sensor. CMOS sensors or more expensive models with CCD sensors do not exhibit this problem. There are pros and cons to each technology, a subject for a later article maybe.

Finally

The little illustration on the box of Kodachrome slide film (Film, what's that? Ed.) was there to remind us that it's often best to take your snaps with the sun behind you, over your shoulder. As I have shown, there are certain times of the day when this is spot-on advice, but this is not always the case.

Take the time to do a quick exploration of the location before you shoot - see if there is a way to use the light as it falls naturally. It will make a huge difference to your work and you may never look at things in the same light again. As a videographer with a story to tell, it's the way that you use available light to enhance your shooting that can make or break the results.