

Production

Lighting

Everything we do with cameras and lenses is about capturing light. Light is needed to register an image on film, or a video camera's chip. No light, no image. A scene can be lit with available light (sun) or man-made light. I.e. Lights. Light can direct the viewer's attention, since the eye is naturally drawn to bright areas of the frame. Or lighting can affect the mood of a scene. So begin to explore the possibilities of lighting.

Look at a painting, photograph or a scene in a movie that you think has interesting light. How is the painter or photographer achieving that effect? Start by identifying the light source (Where is the light coming from?) and ask these questions:

1. What kind of shadow does it cast (crisp or soft)?
2. What angle is it coming from?
3. How bright is it (its intensity)?
4. How bright is it relative to other lights (the lighting contrast)?
5. What colour is it (orange, blue etc.)

Some ways to describe light are:

- Hard or Direct Light (Casts a hard shadow, sharp contrasts)
- Soft or Indirect Light (Softer shadows, smoother, diffused)

Indoor Lighting: Standard Three Point Lighting

A classic lighting technique is often called 3-point lighting because three basic lights are used to illuminate the subject: 1) the Key, 2) the Fill, 3) the Backlight.

1. Key Light

- The Key Light is the brightest and casts the primary shadow
- Often placed a little higher than the subject on a downward angle
- Also placed at a roughly 45 degree angle from line between the camera and subject

2. Fill Light

- The Fill Light fills the shadows created by the Key Light
- Fill light is often diffused using "diffusion" or using indirect light
- Often placed on the opposite side of the camera from the Key Light

3. Backlight (aka hair, rim edge, kicker)

- The Backlight creates a bright outline of the subject to separate them from

- the background
- Often placed behind and above the subject on a downwards angle

Outdoor Lighting: Shoot for Magic Hour

When shooting outdoors, Mother Nature takes over and we have much less control over the light. Although we can still shape light and add lights, we mostly have to roll with whatever the lighting situation is. Image makers all agree that sunrise and sunset hours produce very beautiful images. In the early morning there is a “cool” aesthetic and in the early evening, there is a “warm” aesthetic. Because the time when the sun begins to set produces a warm AND angled light, people have called this magic hour. So try it out, go out and compare shots during the middle of the day and during magic hour. Though it is important that the “magic hour” light meet the needs of your script and scene timing.

Painting and Sculpting Light

Think about indoor lighting as painting and sculpting light. You can really shape light in many ways. There are so many options to play with like:

Bounce Boards

- These can be anything that bounce light like foam core, a white piece of wood...get creative.
- Flex Fills
- These portable bad boys are great for bouncing and sculpting light and make more difference than you think. The white side creates a soft bounce light, and the silver/gold side creates a harder shinier light.

Diffusion

- This cloth-like material softens light so that it's not as hard
- Diffusion comes in different materials and textures and different intensities as well.
- Diffusion is often used when filming close-ups on faces

Black Wrap

- A great way to sculpt and control light. This is essential black tin-foil that doesn't melt or burn. (Lights can get VERY HOT)
- Black wrap can be shaped into a cone for a more focused light...poke a hole or holes through it, or use it to cover light leaks...again, be creative with how you use it.

Neutral Density

- Also known as ND, NDs cut light without diffusing or altering it's characteristics (like how hard or soft the light is), it just makes the light less bright.
- ND filters are also built into digital cameras because you often need an ND filter when shooting outdoors (sunlight is MUCH stronger than indoor

light)
Gels

- Gels colour light and can really make a huge difference in a scene's moods.

Training Your Eye to See the Dynamic Range of Light

In the end you really want to try and train your eye to see more details of light. What's the shape of the light? Where is it coming from? Is it Hard or Soft? What effect is it having on the mood?

As you begin to be able to read light better, you will have more possibilities to explore how to use light in your image making or recognize when a shot is beautiful. And there's nothing better than being able to trust your eyes and your instincts, because the camera is just the device you use to capture what you see with your own eyes.

Camera

The Camera is a tool to capture the images you will use to help tell your story. You can think of shooting with your camera as a way to collect different paints to eventually paint with, or different music samples to create an entire track or album with. So get to know and love your camera.

The Lens

The Lens is the eye of the camera, and to create the images you want, it's important to understand the basic characteristics of lenses and how they gather light.

1. Focal Length

- Focal length is the distance from the lense to the focal plane, which is where the image is registered on film or video chip
- The smaller the focal length (which is measured in mm) the smaller the image will appear
- So with a 25 mm lens the subject will be smaller than with a 50 mm lens

2. Perspective

- Different focal lengths also affect the perspective of space. For a digital film the 50 mm lens creates an image with true perspective, meaning that it is as you would see it with your own eyes.
- Less than 50 mm distorts perspective and keeps more of the image in focus. We call these wide lenses.
- More than 50 mm begins to compress the image and blur out whatever is not in focus.

3. F-stop

- Inside the lens is an iris that controls the amount of light that come through

- the lens.
- At a low f-stop like f/2.8, the iris is wide open and letting a lot of light through
 - At a high f-stop like f/11, the iris is very closed letting very little light through
 - So if you want your image to be brighter, open the iris and set a lower f-stop

Getting Coverage

Getting coverage means getting enough shots to tell your story without gaps. In general you always want to get an:

1. Establishing Shot (ES) or Long Shot (LS)
 - A long shot that contains all of the action that will happen in the scene
2. Medium Shot (MS)
 - A Tighter shot that focuses on the action of the scene
3. Close-Up (CU)
 - A very close shot that often conveys some dramatic tension or puts emphasis on an important detail.

Camera Supports

In general, it's good to shoot with a tripod or monopod as much as possible. Unless you intentionally want a handheld effect, try and put your camera on a support so that you have a steady shot.

Handheld Camera Work

Handheld camera work is an art form in itself and there are filmmakers who train to do only handheld work...and they are in high demand and get paid very well. The key to handheld work is comfort with the camera. It's not how steady you are. It's how much of a natural extension the camera is to your body. So get really comfortable with the camera, practice different movements. Run with the camera, try it with a monopod and get on the ground or up in tough places. This will only expand the possibilities of what you can shoot and how.

In General

The most important advise with the camera is USE IT. Try it out, play with the setting, try time lapse functions, different shooting modes etc. Experimentation is the best way you can get comfortable with the camera so have fun and try out as many creative and weird ideas as possible.

Audio

Audio and sound is just as important as visuals when communicating in cinematic language. Sound should be considered at the beginning of your project and will only enrich the final film. More importantly it will make the postproduction process run smoother.

If sound is half the movie, then why is it often ignored? The obvious answer is film and video makers aren't always using their ears. The purpose of understanding audio/sound is to ensure that you get the best recording at all times. Audio is an integral element in visual storytelling. A standard piece of advice to new filmmakers is to get at least another microphone other than the on-board mic supplied with your camera. The microphone that comes with most consumer and prosumer range of cameras are omni-directional mics, meaning that they record from all directions, which is fine for ambient sound like the singing of birds in the forest or hubbub of a crowd, but not if you want to pick out more directional audio like somebody being interviewed beside a busy road. In this instance, unless the camera goes right up close, the interviewee is likely to be drowned out by traffic.

On-board omni mics also have a tendency, at least among lower-end cameras, to pick up the mechanical sounds of the camera running, like the zoom motor and even the sound of the cameraman's heavy breathing in those quiet video moments.

Choosing a microphone depends on the situation you are using it for. A lapel or lavalier mic is good for interviews and one-on-ones. These are typically omnidirectional, but give a real sense of being up close and intimate with the subject. They also are sensitive to wind noise and the rustle of clothing if not clipped on well to the subject.

Another option is a dynamic (no batteries required) handheld reporter's mic made by the likes of Electrovoice, which is good again for interview work, although the mic will usually be in shot. You could use this in combination with a MiniDisc recorder to capture the audio of a speech at close range while setting up the camera at the back of a room for a long shot. This mic is an essential component of your sound kit, for back up if nothing else.

Shot gun mics, offer much more directional control, picking up sound in a cone-area of about 50 degrees in front of the camera. This is excellent for an interview where you are dealing with background noise that you can't get rid of (like traffic) or recording sound effects. Bear in mind that you will need a foam or furry windshield to protect the mic from handling and wind noise.

Since good sound invariably relies on you getting up close, you should also consider using a boom, especially if you plan on covering group interviews or action scenes. The boom-handler has to be able to roll the boom toward the

action without creating handling noise, be careful not to cast shadows or get the mic in shot and must be in synch with the cameraman as he changes shots. Headphones with a long extension are essential for maneuverability. The final option is wireless mic, which consists of usually a lapel mic and matchbox size transmitter and a receiver that goes on the camera hot shoe. This allows you to put some distance between yourself and the subject. You could use it for that speech, or • yon- the-wall reportage where the subjects often forget they are milked up it's so unobtrusive.

If you've only got one chance to get that footage then it's safer to work with another pair of ears and hands. A good soundperson will be concentrating on not only getting a clean audio take with every shot, but will also be aware of acoustics, ambient sound, interference (like a plane • ying over) and recording sound effects that the cameraman might miss.

Another consideration is what do you record to - camera or a separate recording device like DAT or, if you are on a budget, the Sony MiniDisc recorder? The recordings on the MiniDisc are slightly under 16-bit, so there is a small quality pay-off compared to the digital stereo sound of DAT or new cameras. Recording sound on a separate audio recorder gives you more control at the recording stage of the process. "A separate recording system is almost always better than a camera. Because in a camera the video heads are close to the sound heads.

Filmmakers who have their own DV editing system then synch the audio and video At the editing process. You will probably be editing with at least two layers of audio - one ambient and one for dialogue—and possibly adding other audio tracks for sound effects or music. The cleaner the audio, the better for mixing, whatever the source of the recording is.

How Do You Record Good Sound?

Sound is a part of any presentation but is often overlooked. One of the most powerful ways to enhance your message is to get crystal clear sound with your images. Think how much money Hollywood spends re-recording all the sound for their films, including dialogue, in a studio. They think it is money well spent and they've been doing it for years (most Hollywood sound, including dialogue, is re-recorded in a sound studio and the original taken off). Using a separate microphone to the one built into your camera will make your film far more professional, with little effort. Here are some other things to consider.
Choose a good location

Research it first! There is nothing worse than finding out your planned shoot is under the main flight path for Manchester Airport!
Background noise

There is very little background noise, which isn't distracting for the viewer. If you have to have it then make it part of the film, if there is a racetrack nearby, get a shot of it and even refer to it in the interview. You could even use it as a background to stop the audience wondering, "what is that noise?"
Isolating your subject

If at all possible, get your subject somewhere quiet; a studio is ideal. If you can't find a studio, find a quiet room, ideally one with carpets and soft furnishings. However, your interview should be held in a suitable location. Sometimes a quiet front room will be right, but when interviewing a farmer about farming methods, a field or barn is best!

The best place for a microphone is as close to the sound source as possible to get clear sound. This can conflict with the camera if the camera operator wants to get a wide shot. This is why you often see lapel mics used (difficult to hide without hearing clothes rustle though) and mics on long poles (booms).

Handling your mic

It is a good idea to do some sound tests before filming. Your lapel mic might work really well until you realize your interviewee is wearing a shell suit or squeaky leather! Rifle mics on a boom pole work really well and you can mount any sort of mic on them. Ideally your mic will have some kind of rubber mounting to separate out any shakes or noise the boom operator (op) makes. The boom op should however be aware of not fidgeting especially with hands and not swinging the mic around too much in case of wind noise. One way of stopping wind noise, which can be distracting, if not downright annoying, is a furry cover called a windshield.

Recording sound using a handheld interview microphone.

Headphones

Wearing headphones is a must if sound is to be used. It is surprising what your mind will filter out which, when you watch your rushes, will ruin your sequence. Even computer fans or fridges or a crew member with annoying breathing habits can make your footage unusable.

Good voice recording

Keep the microphone close to, but not directly in front of your subject and ask the speaker to talk in their normal voice. Beware of speakers who stress their "s" or "p's", try and angle the mic so it doesn't pick these up too much. Don't be frightened to ask them to speak clearly in a noisy environment. Ask them to repeat something if you don't feel it was clear either because of the speaker mumbling, stuttering or a background noise. After all, they want to be heard clearly.

Recording an atmosphere

If you choose to cut at a point when a background noise is prominent, even in a quiet room, it will seem odd. Getting a separate recording of the room or location means you can add this separate layer in the edit and smooth over the cut. It will also mean you can add it when you have someone talking or coughing in a "silent" shot of a scene. If you collect these you will realise how many different sounds a "silent" environment has and how it alters your film. Think of the low rumble of engines in a ship and the power that conveys.

Use good equipment

You can use your camera or a minidisc recorder. The microphone is the first consideration, it is worthwhile considering hiring one (they can be a few pounds a day) if you really want good sound and can record it in a day or two. Make sure the mic you buy is compatible with your recorder.

Find a good place to do it

Whatever sound you want to catch you need it isolated from background noise or "clean", choose the best location for this and get as close to the source as possible whether recording a train or the sound of a kiss.

In a way that makes your film better

It may be that the sound you got for that slamming door had someone speaking over it when filming, or it was distorted, maybe it just doesn't sound like you wanted it to. Go out, get a "clean" version and then paste it over the top of the old sound!

Know about copyright

There are music and sound FX libraries available but there may be copyright issues with these, meaning you have to pay to use them. This can be expensive so consider what you are going to use when planning and try and source it yourself or get a free copy! (For more information see chapter 6.)

Get good location sound

You may need to go back to a location when things are quieter if there was too much noise during filming. Alternatively you could find a similar sounding location with cleaner sound.

Find good times to do it

This often means at night! Between 3am and 5am is about the time when traffic and planes are most absent, it's a tough job but someone has to do it!