Short Film module

Lloyd Grayshon Media to Motion

LOCATIONS

THE POWER OF LOCATION

Some stories require a particular setting. If we're making a historical drama, for instance, we'll need a space that's authentic and appropriate for the time. If the story is about struggling for survival in the wilderness, we'll need something that looks barren, remote, or wild. Every location comes with a set of audience expectations, and the choice of location will directly affect the film's look and the character's actions. A survival story will be very different if it's set in the Arctic tundra rather than the Australian outback. We could even use the location to add conflict: imagine setting a scene about a corrupt business deal inside a church.

But the location is not always at the forefront of the story. For example, let's consider the differences between a story that takes place in London rather than Carmarthen. What are these places known for? What do they look like?

We could have personal or emotional reasons for choosing a location, or it could be as practical as choosing the place that gives the best tax breaks.

THINGS TO CONSIDER

Once we have an idea about the creative purpose of our location, we need to make sure it's suitable for filming.

A good place to start is by imagining where each scene would physically take place. Is
there enough room for our lighting and camera equipment? Are there any windows? If so, do they have shutters, or will we need to find a way of blocking the sunlight?

It's surprisingly easy to overlook how a space sounds. Is there a loud air-conditioner that comes on at random intervals?





Are there fridges nearby that hum constantly? At the time of filming, will there be other people disturbing our silent set?

We must get even more practical when considering the needs of our cast and crew. Are there toilets nearby? How many? Is there an area where we can safely store expensive equipment? Is there a "green room" where actors can relax when they are not needed on set? Is there a kitchen with facilities to make hot drinks? Will we have to carry our equipment up many flights of stairs? Is there free parking available? There are so many questions to ask, and we can usually get the answers by visiting the location in person.

FILMING OUTDOORS?

Depending on where we live, it's usually legal to film outdoors in public spaces so long as we're not causing a disruption. Bigger productions may require contacting the local authorities and organizing road closures, but for the rest of us, we'll need to have a light footprint.

We can use Google Street View to find streets and scenery that are appropriate for our shots, and we can use Google Earth to determine where the sun will be. We simply enter our location and the date and time to see the sun's position.

Filming outdoors can also introduce many audio issues. We should check the location's proximity to train tracks, airports and busy roads. We'll need to find the nearest public toilets and parking spaces, and also decide the best way to travel to the location. We can find lots of this information online, but it's more reliable to visit the location in person.

Ideally, we'll bring our DP and 1st AD along to consider the creative and practical sides of the location. Regardless of who's with us, we should always take photos or videos at every location for future review.

EXPOSURE & SETTINGS

I believe that what's in front of the camera deserves more of our attention than the camera itself. However, there is some fundamental technical knowledge that's worth knowing before we jump into the more creative ideas. Most of this is universal to all cameras, but if you're left with questions, I'd encourage you to look on YouTube, there are many videos tailored to each camera. The first thing to do is change the camera to manual mode, so you can control as many of the settings as possible.

FRAME RATE

Let's start with the frame rate. This is the number of pictures (we'll say "frames" from now on) our camera captures each second. Traditionally, film cameras captured 24 images per second, and cinema projectors played those images back at a speed of 24 frames per second (known as fps). Filmmakers may record at a higher frame rate such as 25fps or 30fps*, but as long as we watch our footage at the same frame rate, what's happening in our footage will be played at a regular speed. I playback nearly all of my footage at 24fps to mirror the "cinematic" look, which means I usually set the camera to 24fps too. If I wanted slow-motion footage, I'd need to film more frames, and play them back at a lower frame rate.

For example, we could film someone walking with our camera set to 60fps, and reduce the speed by 40 percent in our editing software, to get a smooth 24fps playback of our footage which would show the person walking 2.5x slower.

SHUTTER SPEED

The shutter speed (also known as shutter angle on many cinema cameras) controls how much time the camera's sensor is exposed to light while capturing each frame. If our subject moves during this time, it will be affected by motion blur. If we record someone waving their hands quickly at a faster shutter speed, such as 1/500 ("one five-hundredth of a second"), the movement looks choppy because there isn't very much motion blur in each frame.



On the other hand, if we change the shutter speed to 1/50 (“one-fiftieth of a second”), then the motion blur looks more like our natural vision.



Some filmmakers intentionally employ the “choppy” look of a fast shutter speed, or they may slow down the shutter speed to obtain a dreamlike blur.

*The NTSC television broadcast standard is 30fps (29.97fps if we’re being precise) and is mostly found in North America, and in some South American and Asian countries. The PAL broadcast standard, which is 25fps, is much more common in the rest of the world.

However, most scenes in most films use the standard 1/48 speed, which is almost identical to 1/50. Since the shutter speed is a duration of time, we’ll need to change it if we are filming in slow-motion. To find out the shutter speed that will give us regular motion blur, here’s a simple formula:

$$\frac{1}{2 \times (\text{Frame Rate})}$$

Using this formula, we can calculate the “ideal” shutter speed for any frame rate:

24fps	1/48 (or 1/50)
30fps	1/60
60fps	1/120

If we change the shutter speed from 1/50 to 1/120, the image will get darker. This is the side- effect of changing the shutter speed. Reducing the sensor’s exposure time means less light will pass through, and the image will be darker. Once again, it sounds more complicated than it is in practice. Here’s how I think about shutter speed: I’ll film with 1/50 unless I want unnatural motion blur or if I want to film in slow-motion. If I increase the shutter speed a lot, I’ll have to think about ways of making the image brighter.

APERTURE

Changing the lens’ aperture from f/8 to f/4.5
will make the image brighter. The smaller the number, the wider the aperture (and the brighter the image), and vice versa.





The side effect of changing the aperture is that it also affects the depth of field (i.e., how blurry the background is). Without getting too mathematical, a wide aperture such as f/1.4 means we'll have a shallower depth of field than filming at f/5.6.



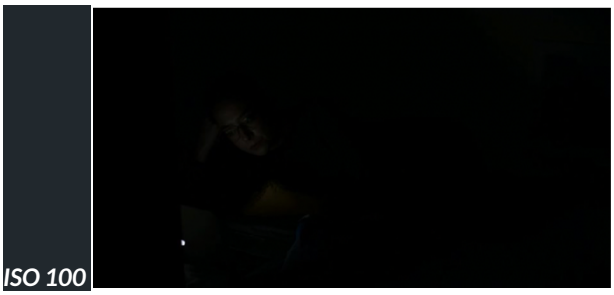
In other words, when we're filming a typical shot the background will be more blurry at f/1.8 than f/8 or f/16.



Lots of people like the shallow depth-of-field look, and the additional light from a wider aperture is often welcome. However, these benefits come at a price. Lenses capable of filming at wider apertures tend to cost more, and the narrower depth of field also makes it harder to keep a moving subject in focus.

ISO

The camera's ISO (i.e., "gain") digitally brightens the image without affecting the motion blur or depth of field. Regardless of the price of our lens or the frame rate we're using, we can increase the ISO to obtain a brighter image.

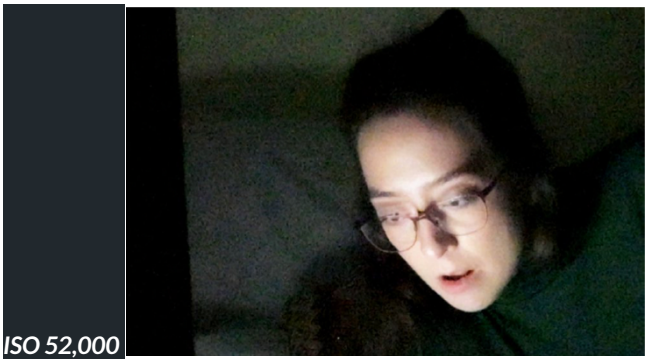

ISO 100


ISO 800

However, the ISO has potentially significant side effects. Higher ISO settings tend to make the footage grainier, while also reducing the camera's dynamic range.

In practice, increasing the ISO is usually a last resort, because if we push it too far, the image becomes mushy and grainy, and full of ugly digital noise. Some modern cameras can produce noise-free images at higher ISOs, however, so it's worth trying the different

ISO settings on your camera to see what's possible.


ISO 52,000

WHITE BALANCE

Next, we have white balance. If we're filming outside in daylight, and we want a grey piece of paper to look truly grey, we can set the camera's white balance to 5600K (i.e., daylight) and it will probably look natural. If we're filming indoors, the bulbs we use for lighting often have an orange hue, which means that the same piece of paper will look orange unless we compensate by changing the white balance to a lower value, such as 3200K, or by selecting the "tungsten/ incandescent" preset.





In essence, white balance allows us to calibrate the camera to the color of the light in our environment, the same way our eyes do automatically. To find the correct white balance, we can hold something gray or white in front of the lens while using the "custom" white balance feature available on most cameras. It will measure and compensate for the color of light that's bouncing into the sensor.

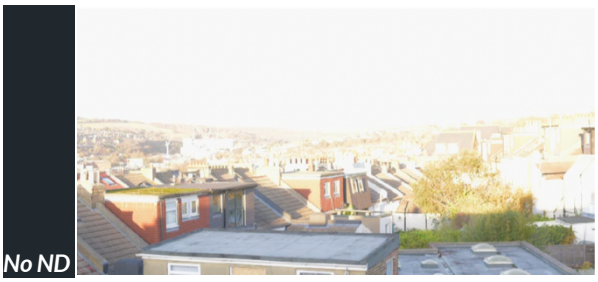
This isn't always necessary, however, especially if we need to move quickly. If we're using LED video lights, they'll usually display their color temperature (such as 5500K), and we can simply enter that value into our camera's manual white balance setting.

Or, if we're really in a rush, we can estimate the white balance by looking at the monitor and adjusting by eye. That being said, estimating the white balance is risky. If we get it wrong, we can attempt to correct blue or orange footage with our editing software, but that might take a long time. Also, major color adjustments after filming will almost certainly look worse than if we'd gotten the color right on set. If there's time, I highly recommend using a custom white balance before filming every scene unless you're certain the light's color hasn't changed.

FILTERS

There are many different kinds of filters available, but let's look at the two that I use most often. ND filters act like "sunglasses" for the lens and allow us to use our desired aperture and shutter speed settings in brighter lighting situations. For example, if I'm filming outdoors in the sunshine and I want to film with a shutter speed of 1/50 but also at an aperture f/2.8 for a shallow depth of field, then the shots would be too bright, even at our camera's lowest ISO setting.

With the correct ND filter, however, I can darken the image without affecting the motion blur or depth of field.



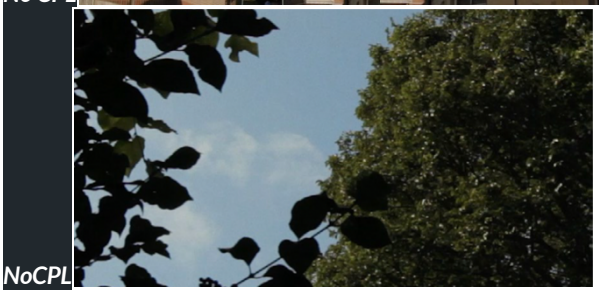


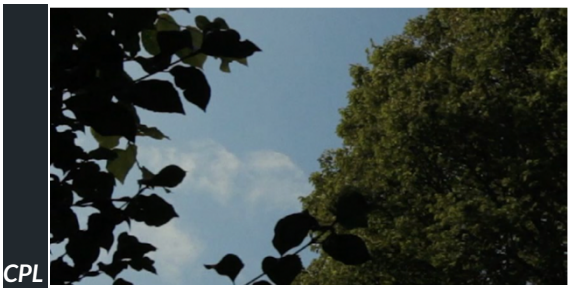
The other filter that I use regularly is a circular polarizing filter (CPL). These handy pieces of glass filter light based on its incoming angle. In practice, we attach a CPL to the lens and rotate the front element to see which angle of rotation looks best.

Since CPLs cut the light based on its angle, there are some scenarios in which it will not affect the image at all. Like any tool, it's not a perfect solution and requires practice to master. That being said, I bring one with me any time I'm filming outdoors and rarely regret it.









most professionals still prefer to focus manually. Bigger productions will employ expert focus pullers who have years of specialized experience, and these 1st ACs can ensure that every shot is in focus while following the filmmaker's precise instructions.

For indie filmmakers, autofocus can be a valuable tool as long as we don't rely on it too heavily. I like to use autofocus to "quick focus" on a subject before recording, and then switch to manual focus while the camera's rolling.

I wouldn't trust autofocus for a complex scene on a film shoot, but if I'm filming a simple wide shot with equipment

AUTO VS MANUAL FOCUS

Setting the focus on a wide stationary shot is pretty straight-forward. We simply turn the focus ring until the image looks sharp, and press record. But, once the camera starts to move,

or we introduce a moving character, we may need to adjust focus while recording. Now, our challenge is to smoothly keep the subject in focus without distracting the audience. It's a skill that takes a lot of practice to master, which might be why camera manufacturers have invested so much money into improving their autofocus systems.

Although electronic autofocus technologies have improved dramatically in recent years, that prevents me from touching the lens, autofocus can be very helpful.

OPTICAL STABILIZATION

Most modern camera systems will have one or two useful stabilizing features that can help minimize unpleasant camera shake. The first place to look is on the lens. Some lenses will have "IS" in their product name and come with an extra switch on the lens that turns the stabilizer on. Depending on the camera manufacturer, the acronym could be IS, VR, OIS, OS or OSS, but for the most part, they all do the same thing.



Basically, optical lens stabilization moves part of the lens slightly to compensate for shakes. It's not a magic solution, mind you, so if the camera moves too much, no amount of lens stabilization will keep it steady. Under the right circumstances, however, it can make a big difference.

The second kind of stabilization is In-Body- Image-Stabilization (IBIS). This stabilizes the camera's sensor, regardless of the lens we're using, and it too has varying results depending on the camera we're using and how much we shake it.

Like autofocus, lens/sensor stabilization is not something found in the high-end professional's gear. If we use a tripod or other stabilizing equipment, we can get buttery smooth movements with any camera system, but on an indie production, that extra equipment isn't always available, so optical stabilization can be very useful.

TECHNICAL CREATIVITY

This area of filmmaking is very technical. The numbers can be intimidating at first, but once we've got the camera in our hands and start to play around with different shutter speeds, apertures, frame rates and filters, it becomes intuitive.

CAMERAWORK

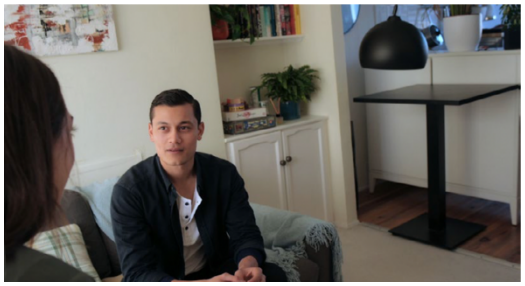
THE BASICS

Most people who have grown up watching movies and television will have an instinctive understanding of how to use a camera to tell a story.

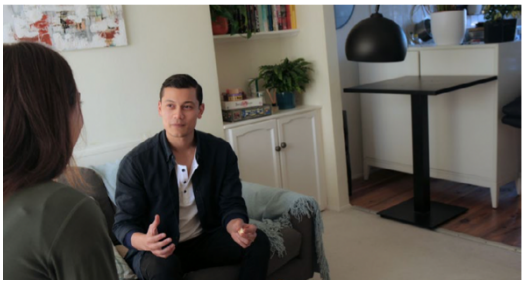
But even with this innate sense, there are still some guidelines we should consider when we're deciding where to put the camera or how to frame a shot.

The "rule of thirds" is a popular guideline for beginner filmmakers, which encourages us to position our subject on the intersection between the horizontal and vertical lines that would appear if we split the frame into thirds.

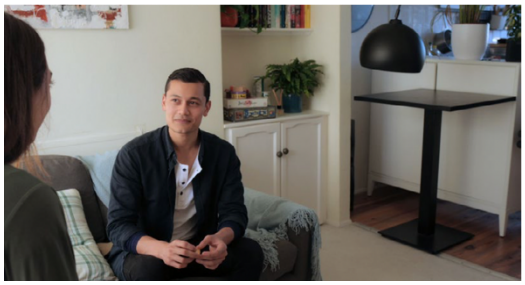
But, there are plenty more framing conventions we might choose to follow. See the images below for some examples:



"Cutting off" our subject's wrists or the tops of their head can look strange on wider shots.



Our framing looks more natural now that we've moved the camera back, but the vast majority of movies use a flat horizon, so it can look unprofessional or uncomfortable if our camera isn't level.



Now our horizon is flat, but since our subject is facing right, we'll pan the camera right so there is space on the side they are facing. This is referred to as "looking room".



There's our conventionally framed shot following basic composition guidelines, but these guidelines are only a starting point, as there are plenty of excellent movies that break one or many of these "rules" for creative effect.

Once we are aware of these fundamental guidelines, the next step is to practice and experiment. My framing and composition improved greatly after I spent a few years taking at least one photo every day. The more time I spend looking for images and capturing them, the more I raise my standards for what I consider to be a good image.

DEPTH

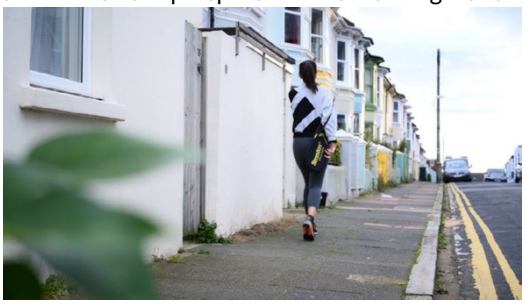
Most of the basic composition guides are pretty instinctive but adding depth to our frames requires a little more practice. If there's no distinction between the foreground and background, our images might look a little flat. When a shot has "depth", it can look three dimensional, which helps the audience believe they're looking into a real-world rather than watching a flat screen.



We could add a foreground layer by positioning a character or prop in front of our camera.



Sometimes all it takes is rotating our camera (and our actors) so that we aren't filming perpendicular to a wall. Any time we can see perspective lines reaching into the distance, it's likely that our image will have depth.



Another simple trick to avoid flat images is to leave some space between the character and the scene's back wall, rather than filming them with their back against a wall.



This is one of many instances when a good location helps our cinematography. Ensuring that we have a large enough room for our scene, with extra space for our equipment, will give us a lot more freedom with our camerawork.

Now, of course, we may choose to avoid depth on purpose. One example might be if we need the audience to empathize with a character who feels trapped. In these scenarios, we can do the opposite by making the room feel small and the space claustrophobic.

CAMERA ANGLES

Let's imagine that we're filming a dialog scene between two of our characters. One approach would be to show both of them in the frame in a wide shot to connect them. Or we could move the camera until it's closer to one character's point of view. Or we could go for a close-up, so the audience is forced to look at that character alone. There are so many options, and each will give the audience a different perspective of our scene and the dialog that's taking place. That said, we'd never have time to film all of them,

so how do we decide which angles to use in our film?

Alfred Hitchcock said, *"The size of any object in your frame should be proportional to its importance to the story at that moment."*



That school of thought could inspire us to use a close-up of a phone when our character is anxiously awaiting an important phone call. It could inspire us to film a character in extreme close-ups during a pivotal scene, which provides a new intimacy with that character, but if we use.

Too many close-ups in one film, their impact could be diluted. Instead, our camerawork-like any part of a film-serves the story best when we consider every shot in its greater context.

Perhaps there are lots of close-ups at the beginning of a story, but then the character makes a decision that distances the viewer from them, so in the later scenes the camera isn't as close.

Or, we could introduce our main character with a low-angle shot, where the camera is looking up at them, like the awe of a young child looking up at their oldest sibling. But then, when the villain enters the scene and takes control, we raise the camera and look down on our character, who now looks weaker than ever. Any of these techniques can be used to help the audience empathize with our characters, to display the power dynamics in a scene, or simply to show the audience what we'd like them to look at.

We could come up with these examples all day long, studying our favourite films to see how camera angles are used to represent different scenes and characters, but at the end of the day, film is a subjective medium. Any type of shot can take on a new meaning when it's combined with an actor's performance, the music, or the editing. Our role as the filmmaker is to make a call based on our intuition and our understanding of cinematic language to determine what's best for the story.

FOCAL LENGTH

While considering the camera's orientation in a scene, we should think about how zoomed in we are, which is determined by the focal length of the lens.

Martin Scorsese, Orson Wells, and Steven Spielberg have all said that the 28mm lens is one of their most frequently used focal lengths, while prolific cinematographer Roger Deakins says he uses a 32mm most often. This is our approximate "midpoint" for a neutral look that's similar to human eyesight. If we zoom in, using a telephoto focal length of 85mm or 135mm, or zoom out to a wide focal length of, for example, 18 or 24mm, we'll get a very different look.

Let's demonstrate with a simple shot. When we change the focal length, the field of view changes. If we use a wider lens, then the camera can see more of our scene, and vice versa.







However, moving further away from our subject can also change the field of view, but in a different manner.





We can see the difference if we set up the camera far away from our subject and use a telephoto lens. This will look dramatically different from being close with a wide lens.





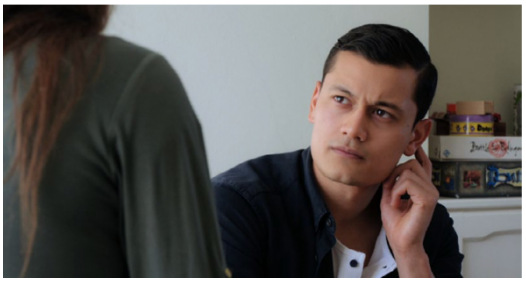
Filming with a wide lens close to our character will expand the distances, stretching out our subject's face. Filming with a telephoto lens from a distance flattens the subject and makes the background appear closer, which is an effect called "compression". We could film all of our wide shots on a 24mm and all of our close-ups on an 85mm, and we'd get a pretty typical cinematic look.

That being said, filmmakers often use compression as a creative tool. We could use a wide lens close to our actor during a scene where the character is using drugs, as this lens choice would help show how their mind has been altered and how they are seeing the world in a new way.



People often describe the distant, zoomed-in look as voyeuristic, maybe because the compression is similar to what we'd see through binoculars. Filming a dialog scene from a distance with telephoto lenses could give a subtle feeling of paranoia, as if the characters are being watched.

Whenever I'm choosing my focal length, I try to think about the lens's compression before I think about the field of view. I don't want to accidentally create a compressed look just because I was too lazy to move the camera. If we experiment with different lenses, we can learn to estimate what lenses were used in our favorite movies and use that as inspiration for our own work.



FILMS ARE SUBJECTIVE

I want to wrap up this chapter by reiterating how subjective all these techniques are. Low- angle shots don't always make characters look powerful, as; that depends on many factors other than the height of our camera. We could read every cinematography book and analyse every film, but we'll never find a formula that tells us exactly what to do with the camera. We don't need creative justification for every decision we make. Some of the best filmmakers rely heavily on their intuition, simply imagining what the audience needs to see at a given moment.

We can be inspired by the way filmmakers use the camera and how that makes us feel, but at the end of the day, it's our story that will inform our cinematography decisions.

LIGHTING

Lighting can highlight the subtleties of our story. We can use light to accentuate, to reveal, to heighten, or to downplay a particular shot. I believe that filmmakers who don't consider lighting are missing out on one of the easiest ways of improving the look of their films.

NATURAL LIGHT

Let's start with the light that's naturally available to us. It's completely free and can be just as effective as the most complex lighting that uses hundreds of bulbs, wires, and stands. However, to harness the full potential of natural light, we'll need to give it some thought. Instead of setting up lights and cables, our main job should be finding the best places to film.



If we're filming indoors, we could set up the camera and actors next to a window for a beautifully soft but naturalistic look.



We can move further from the windows, or film at night, but we risk getting grainy footage if our camera isn't capable of filming in low light.

With natural light, our focus is usually on blocking and removing light rather than adding it. We may hang up black cardboard flags, hang thick fabric over some windows, or turn off various light switches at the filming location.

Outdoors, we've got to consider the direction of the sun when deciding where to place our cameras and actors. Setting up a large dark sheet on one side of the actor can bring real depth to the shadows, and is much easier than trying to add a light that's bright enough to compete with the sun. Every outdoor film shoot can be halted by the weather, so if we need consistent sunshine or clouds throughout the scene, we'll have to leave time and flexibility in our schedule.

Typically, the sun will be high in the sky at noon in the summer, which can create some unflattering shadows when compared to the photogenic beauty of a sunset. The softer, golden light before dusk is very popular with filmmakers, but that golden-hour look doesn't suit every scene. We've should consider what kind of lighting best represents our characters and our story.

MOTIVATION

I love filming in natural light, but sometimes we want a specific look that's simply not possible without adding our own lights. With practice, we can learn to transform a room by changing the direction, quality, and color of the light. But this freedom comes at a cost. It's all too easy to get carried away with artificial lighting, which can lead to an unnatural or "overlit" look.

My favourite way of combatting this is by using what's called "motivated" light. Lots of the best lighting decisions are motivated by the kind of light that would exist if our film wasn't fictional. In the real world, light comes from windows, through doorways, and from other "practical's" such as table lamps. When we're setting up

our lights, we might start by simulating the kind of light that we'd expect to find in the scene's location. Some projects call for entirely unrealistic lighting, but a typical scene in a typical film tends to have plenty of realism in the lighting. Hopefully, the audience won't notice that the scene has been lit, which can further immerse them in the fictional world of the film.

When I'm lighting a scene, I'll start by thinking about the kind of light that would be there in reality. We might choose to use soft light if we're filming a day interior where there is likely to be a window nearby.

For a night scene, we might set up a blue light to simulate moonlight coming through an open window. After that, we're can take liberties to make sure we have the right look for the scene, but logical light is an excellent foundation.

LIGHT DIRECTION

The first element of lighting we can control is
its direction. My favorite means of learning about this is by pointing a flashlight at someone from different angles. If we pay attention to the shadow that the nose casts, we'll see how much someone's face can be changed with nothing but light.

With the light's "motivation" in mind, we might set our lights at eye level and off to one side if we're simulating window light. If we're filming in a parking garage at night, we'd probably expect the light to come from above, like fluorescent ceiling fittings. Once we learn to recognize what a face looks like under different angles

of light, it removes a lot of the mystery from cinematography. We'll be able to set up lights and anticipate the results before seeing our camera's monitor. With practice, we'll even be able to look at an image and make an educated guess as to where the light is coming from, allowing us to reverse engineer the lighting from our favorite movies. We can then consider how these different kinds of light might impact a film. How does it feel to see someone who's side-lit with one eye hidden in shadow?



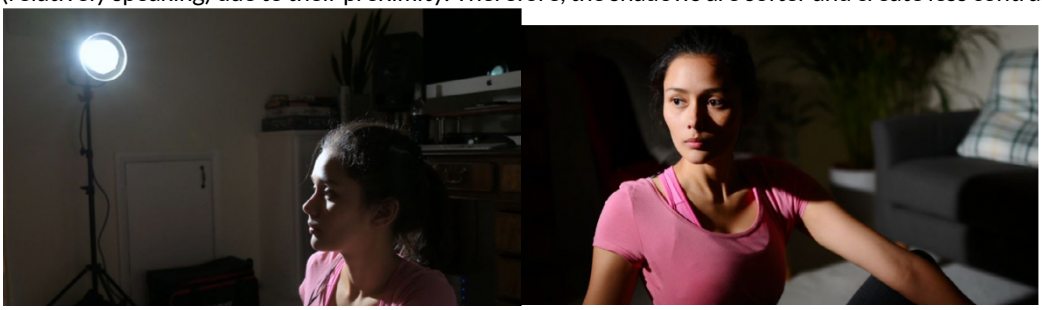
Does this remind us of anything? How do we feel when we see someone lit from underneath?



LIGHT QUALITY

The quality of light is determined by the size of the light source relative to the subject. We can use the sun to demonstrate this. On a clear day, the shadows are crisp and clear because there's a single source of light that's relatively small. This quality of light is called "hard light", and it creates sharp shadows and lots of contrast. The sun is gigantic, but because it's so far away it casts similar shadows to a small bulb that is much, much closer. On a cloudy day, the sun is still illuminating, but the clouds have become our figurative light source, and they are much bigger

(relatively speaking) due to their proximity. Therefore, the shadows are softer and create less contrast.



In cinema, soft lighting is pretty common- probably due to it being more flattering for faces and also because we rarely see harsh, dramatic shadows in day-to-day life. Softer light tends to be our default for a lot of scenes.



When we talk about a softening light, it's not just about putting a diffusion filter in front of a bulb; as we're actually talking about increasing the relative size of the light. We often can't move the light any closer, so it makes more sense to bounce the light from a larger light source.



On set, that means we could light a character with an 18-inch softbox positioned close to the talent, with which the shadows would look very soft. In a wider shot, however, the softbox would be visible to the camera, so we'd need to move it further away from our subject, and increase its size to get a similar look. Rather than using a giant softbox, it's often easier to bounce the light instead, for which we can point our small light source at a white wall or ceiling, and if we get the angles right, the reflected light will be our new, larger light source. Alternatively, we can bounce our light from a white bedsheet (or anything reflective) hung on a pair of light stands. This gives us a lot more freedom to adjust the angle and position of the light and it's bounce.

If we're going for a soft look, we'll need the most powerful lights we can find, or we'll need to use fast aperture lenses. Why? Because whenever we diffuse or bounce light, it will not be as intense as a direct beam, so we either need more light to begin with or a lens that can receive more light. The second consideration is that soft light tends to bounce in all directions, and so it can easily fill a room, removing any shadows. We can contain the light with

darker sheets or flags to cut some of those secondary reflections that could be diluting the look.

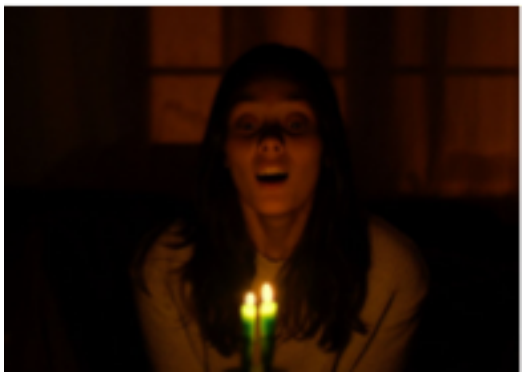


The next time you watch a movie, take note of which scenes use hard and soft light. Is the light quality motivated by realism? How does the light make you feel?

COLOR

In mainstream movies, the vast majority of shots use a fairly neutral light colours. If our scene is set next to a window during the day, but our lights cast a green or red hue over our scene, we'd be breaking lots of cinematic conventions. Of course, we may want our film to have unconventional or abstract lighting, but even within the bounds of realistic filmmaking, there are plenty of times we can use colour creatively.

We could use the light's colour to show the time of day. If we're filming a night scene and our light's motivation is the moon, we can consider how the direction of the moonlight would be from above, and perhaps coming in through a window if we're indoors. The light quality would be hard, creating crisp shadows, since the moon is a relatively small light source, and the colour would be blue (i.e., "cool").



If we're representing candlelight or an open fire, they tend to have an orange (i.e., "warm") hue and could come from below, with softer shadows.

Colour theory, states that there are societal connotations that come with each hue. For example, the color red is often associated with sensuality and passion (red lipstick, red roses) but also danger (blood). With this in mind, we might set a scene in a bar or nightclub with deep, red lighting as a way of ascribing those connotations to our scene. However, if our film's style is more abstract, we could use red lighting without this kind of logical motivation. While most filmmakers tend to stay rooted in a foundation of realism, there is always room for creative license if we believe it would support the story.

LIGHTING ON A BUDGET

A budget kit could start with some inexpensive but powerful work lights that can be obtained from hardware stores. If we're willing to spend a little bit more, we could pick up a basic fluorescent softbox lighting kit, which usually

includes light stands. With that alone, we'll be able to control the light's direction and can bounce it from ceilings and walls to change its quality.

Some lighting fixtures allow us to swap bulbs for a cooler or warmer look, and we can always bounce the light off a coloured bed sheet to get a different effect. Furthermore, we could change the camera's white balance to make our lights look warmer or cooler without spending a single penny.

For a softer look, we can use a white shower curtain or bed sheet, along with some tape or inexpensive A-clamps to hang it up. Pointing our light at the white material will give us smooth, soft shadows. To complete the kit, we'll need something to block light, like a large piece of black-painted cardboard or a thick blanket. Now we'll be able to remove any unwanted light, such as a bright windows, during a night scene.

Lighting equipment can be expensive, but once we have a grasp on the direction, quality and color of the light and have a firm understanding of its true-to-life motivation—it's far easier

to achieve our desired look, regardless of our equipment.



MOVEMENT

A moving camera is quintessentially cinematic, a scene can gain considerable power and energy when the camera's movement supports the story. That being said, we probably shouldn't bombard the audience with a constantly swirling, rotating camera.

Sometimes, stillness is more powerful. So when we imagine our film, we'll need to decide when and how the camera will moves.

TRIPOD

A tripod is the foundation of most camera movement. It holds the camera still, and we
can film an entire movie that way, cutting to a new shot each time a character moves. But tripods can also be used to perform smooth pans (horizontal camera rotation) and tilts (vertical camera rotation). To see the true power of a tripod, all we have to do is watch some classic movies from the '60s or earlier. Back then, cameras were so heavy that they had to be fixed to a tripod and so a large proportion of camera movements were pans and tilts. Although the camera only rotated, it allowed the audience to follow the character as they moved around a space.

Watching these older films is a real masterclass in camera placement and how to stage a scene economically.

HANDHELD

For a rougher, playful feel, we can hold the camera without support and let the audience feel the energized “gritty” style that’s often associated with documentaries. Handheld footage is probably the least expensive of all camera movements. If we walk with our knees bent, and practice keeping our hands steady, we’ll get some great results. I like to use the DJI Ronin M, S or SC for my handheld shots

WHY MOVE?

Films with camera movement tend to look expensive and impressive, but that’s usually not a filmmaker’s top priority.

A good starting point is considering how the different camera movements will make the audience feel. We can watch our favourite movies to study how- and more crucially, when-the camera moves. We can think of movement as punctuation for our film. In writing, we can use an exclamation mark to communicate shock, anger, excitement; if the camera moves towards our subject during a key moment, it can have a similar effect.

With that in mind, we may decide to use such a camera move when our character is making a big decision, intensifying the moment by getting closer and closer. Or we could slowly move the camera away from our character, inching backward during a tense scene as if the audience is backing away in fear. Or we could add some dynamism to a heroic moment by circling the camera around our character so the background rushes past them. There are many different interpretations that we can be applied to the different types of camera movements.

We may also choose to move the camera because it was “motivated”. A motivated camera move is when the camera follows something specific in the scene. We might decide to use a gimbal stabilizer so we can walk with the camera to follow a character down some stairs. If our character stands up, we might simply tilt the camera up so we can still see their face.

Typically, camera movement stands out a lot more if it’s not motivated by movement within the frame. As a result, lots of camera moves in mainstream cinema use such motivations to blend the camera’s motion with the scene.

CHARACTER

We can always go back to the script to help us with camerawork decisions. Let’s imagine our character is in a war zone; we could film them with a handheld camera, and the unstable shakes would help the audience empathize with the character’s frantic, nervous mindset.

We could film with a gimbal or Steadicam during a scene where our character is feeling confident. A single shot without cutting while the camera glides smoothly pas could be the perfect pairing for a character who’s in charge, confident, and slick.

REMEMBER

Camera movement by itself is usually not very powerful. It’s the combination of the script, the actor’s performance, and every other creative decision we’ve made that brings out the full impact.

We could make a very emotive, dramatic film without moving the camera at all, just by cutting to the next angle. We don’t have to use a shaky handheld camera every time our character is feeling nervous, or follow every little movement the characters make. The camerawork could be very plain, or could even oppose the character’s mental state, creating a contrast between how the character and camera move.

If camera movement in film is like punctuation in writing, then we should remember that the sentence itself does most of the work. The punctuation is only there when we need it.

AUDIO

I would rather watch a film in DVD quality on a tiny screen with a good sound system than watch a movie in pristine 4K quality on a large screen but with a laptop's built-in speakers.

Although I'm confident enough as a viewer to make sweeping statements about the power of audio, for some reason when it comes to my own projects, I have to remind myself that sound is important. It's much easier to invest in a new lens than a new microphone. I naturally put a lot of thought into how my film will look, but the sound often gets neglected until post- production.

COLLABORATION

On a micro-budget production, working with a crew can be a luxury. However, I strongly believe that every film set should have someone who is focused on managing the sound. Ideally, it'd be

a professional sound recordist, but on a tight budget, it might have to be a friend listening through a pair of headphones for any audio issues.

Usually, the goal on set is to record the dialog cleanly and clearly. Sounds effects such as footsteps can be added later, but the voices are the hardest to replicate in post- production. If there are any traffic sounds, train tracks, passing airplanes, or construction sites nearby, we'll need to stop the recording and wait until the set is quiet. The sound recordists I've worked with have had fantastic attention to detail.



They let me know if there are any problems with each take, and they also tick every piece of dialog from the script. If the take was good, but one word wasn't captured perfectly, they'll ask the actors to re-read that line for the microphone between takes.

After we've covered the scene, we'll then record what is known as "room tone." This is the natural ambiance of the room while everyone stays silent for about a minute. We might hear the hum of a distant air conditioner or the sound of birds in the trees; although it may seem insignificant, these background sounds will be essential when it comes to post-production.

If we've got the dialog and room tone, and there's still a bit of time, the sound recordist might suggest recording some "wild-track" sounds. This could be footsteps or any other non-dialog sounds that might be useful when we're building the soundscape in post- production. Although we could record most of these sounds on another day, it's worth recording sound in the authentic environment of the set (if possible).

MICROPHONE PLACEMENT

Microphones can't zoom in, so even the greatest microphone won't be able to capture clear dialog or sounds if it's too far from our subject. The sweet spot is around 9 inches (20 cm) from our subject's mouth, and there are a few different ways we can get the microphone into that position.

A super or hyper-cardioid shotgun condenser microphone on a boom pole tends to be the first choice for recording dialog. These microphones are directional, meaning they mostly capture sound from the direction in which the microphone is pointing, which is helpful for isolating dialog from background sounds. They're typically attached to a boom pole so they can be held outside the camera's view, hanging down over the person speaking.

Holding a boom pole correctly requires some practice. Not only does the microphone need to be the correct distance from the subject, but the operator will need to aim it at different actors as they converse. The operator will also need
to communicate with the camera operator to ensure that the microphone (and its shadow) isn't visible on camera.

Lavaliere microphones are tiny microphones that are often hidden underneath clothing.

Their compact size makes them a good choice for wide shots or in tight spaces such as a car. Since their signal is usually transmitted wirelessly, lavalieres tend to be expensive. There is also the risk of radio interference, although I've personally never experienced this. A cheaper alternative is to connect the lavalier microphone to a portable recorder in the actor's pocket, which captures and stores the audio without wireless transmission.

Even if we're using a lavalier/boom microphone, we'll still usually put a microphone on the camera as well. This serves as a backup recording that we can use to synchronize the video and audio files together.