



SEEING THE LIGHT

MAKING THE MOST OF AVAILABLE LIGHT AND MINIMAL EQUIPMENT

eBook by Mitchell Kanashkevich

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I'm a travel/documentary photographer whose focus always revolves around people and real life. I'm always on the move and I don't have the man/womanpower, nor the time, nor the space in my bags for a complicated lighting setup. Nevertheless, I place tremendous value on the aesthetic appeal of my images and for that reason, to me, light is inseparable from the subject matter, it's as important as the person in the image.

Undoubtedly a minimal lighting setup has its limitations. However, light and the way it interacts with spaces and our subject matter has been observed and depicted by image-makers much before the invention of photography or lighting equipment. There has always been a tremendous amount of creative opportunities even without artificial light, so when you use something as simple as a reflector in combination with sunlight or a single flash with light from a fire or a light bulb, our creative opportunities multiply.

The aim of this eBook is to expose photographers to some of these opportunities through examples, detailed descriptions and diagrams of setups from my own photographic experiences.

Essentially, the eBook is of those who find themselves in the same situation as me – on the move, with a need to stay compact and in love with light.

Chiaroscuro: A word on light-dark

Throughout this eBook I will constantly, almost obsessively refer to sculpting, shaping, and creating definition and a sense of volume with light. This is in fact an obsession, because to me an aesthetically appealing image is one that has the mentioned qualities. Photography is two dimensional, but a lot can be done to represent the depth that exists in our three dimensional world. Light plays a big part here; we need it to create the gradual progression of light to dark tones and this is what's responsible for the illusion of depth and volume.

The desire to achieve a sense of three-dimensionality has existed among image makers long before photography. Light-modelers of the past who are probably most notable and best remembered today are the renaissance painters of 16th and 17th centuries. Caravaggio and Rembrandt are truly worth looking to for inspiration, even after the centuries that have passed since the creation of their works. Their light modeling is often referred to by art historians as “chiaroscuro” or literal translation; light-dark.

And so, it is this “chiaroscuro” that I am attempting to capture and create in my images. But rather than use this fancy word and confuse anyone who hasn't read this part of the introduction, I will keep referring to what I aim to achieve as sculpting, shaping and adding a sense of volume and depth.

Top: Caravaggio - *Christ at Column*

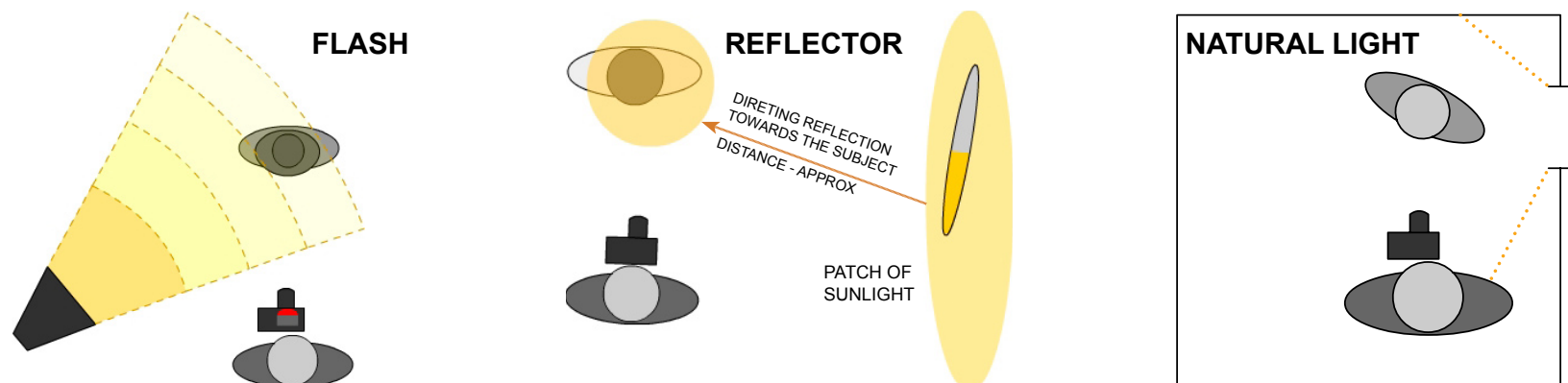
Bottom: Rembrandt, *Anatomy Lecture*



eBook Structure

- The eBook is broken up into three sections: **Flash**, **Reflector Light** and **Natural Light**. I've purposely placed them in this order, from types of light which are easiest to manage, to those which are the hardest.
- I feel that looking at real-life examples is the best way to learn and so I have included multiple images, descriptions and diagrams, which deconstruct particular lighting scenarios.
- The camera settings, as well as lenses used are listed for every image and where applicable, the flash or reflector information is also provided (look in the grey boxes next to the diagrams).

A word on the diagrams: Light from the different light sources is represented in different ways. Light from the flash progresses in a precise flow and it goes from strong near the flash to weak away from it, thus it is represented accordingly. Reflector light is not so precise and so, I have simply represented the patch of light which I am trying to reflect and the approximate patch of light which I am reflecting at the subject. Natural light is represented by dotted lines.



The Flash

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For a photographer who's on the move and needs to stay compact, a flash or more specifically an off camera flash is the ideal artificial lighting tool.

I use a flash for practical and aesthetic purposes, it helps me "assist" weak, available light and even-out strong contrasts, but I also use a flash to sculpt the faces and bodies of my photographic subjects and to create the kind of light which is visually pleasing to me.

Because my work is primarily documentary I don't want the presence of a flash to be overwhelming. The light needs to look "believable". The viewer should not stop to question the source of light because something doesn't look right.

A "believable look" is best achieved when there is an actual or assumed presence of an everyday kind of light source, such as the sun, a light bulb or a fire. The color and direction of this light is then emulated with a flash and made to look stronger than what it is.

Flash: Canon 580 EX II (1) **Receiver: ST-E2** (2) Infra Red receiver. The need for “a line of vision” certainly has its limitations in some situations. A radio transmitter can be a good (and very cheap) alternative, but in really dark situations that Infra Red “auto-focus” assistance is a thing of beauty.

Softbox: Photoflex LiteDome XS (3) with its adjustable shoe mount and a bracket (this is where you mount your flash and attach the whole thing to a tripod or a stand). It's relatively rugged, relatively cheap, big enough to provide sufficient diffusion and yet small enough to fit into a handbag when folded.

Gels: I use Rosco Cinegels. (4) You can order their “Rosco Cinegel Swatchbook” [HERE](#). It's just \$2, but depending on where you live the postage could cost considerably more. The seemingly limitless number of gels will fit perfectly over the 580EXII with the help of some tape. If you can't get your hands on these gels, you can make your own from some colored cellophane, they won't be as good, but still better than an ungelled flash.



For me there are four things that are crucial when using a flash:

- **It must be off camera:** With some effort an on-camera flash can give you a decent light which will be pretty flat. Taking the flash off camera and angling it or tilting it opens up a whole world of new possibilities.
- **The power output must be adjustable:** I find that precise control over the flash is a necessity. Even one stop on the dial makes a difference to what kind of light is produced. I analyze a situation and often set the power output of the flash before anything else. The settings on my camera (also manual) are adjusted in accordance to all of the available light – the one that is already there and the one that will come from the flash. Knowing what to dial in comes with experience, eventually it starts to make as much sense as “f” stops and shutter speeds.
- **The flash should be gelled to match the available light sources:** A flash can kill the ambience. If you’re shooting a scene lit by the warm light from a fire and using the flash as is, with that cold neutral light – you’ve killed the ambience. There is a multitude of gels to match virtually any kind of light source and it makes a world of difference if you use them. Look in the “the equipment that I use” section on previous page.
- **The flash must not be harsh, but rather diffused with the help of a softbox:** The light from a “naked” flash flows in a fairly intense and a fairly narrow stream. A softbox will do two important things – diffuse the light and spread it out (the larger the diffuser the wider the spread of light). This is probably the next most important thing to do after taking your flash off camera.

THE FLASH - USING THE FLASH

When I set the power output of the flash, I want to more or less match the intensity of the available light. It may seem contrary to logic, but **less available light = less power from the flash, more available light = more power**. When I'm sculpting with light I need to create a progression of light to dark tones and so I need to slightly overpower the available light, but this has to be done in a subtle way. The exposure reading in camera without the flash should not be too dramatically different when the flash is used.

The power of the flash goes from 1/1 - strongest to 1/128 - weakest. In between, there are increments of: + 0.3, + 0.7, and - 0.3, - 0.7, these allow for more precise power output settings.



Because my aim is to make the light as soft and as spread out as possible I never zoom in with the flash and set it to 24mm

It is necessary to set the flash to slave if you'll be shooting with the infra-red receiver

The flash power output is set to manual.

These are descriptions of only the immediately relevant flash settings. For a complete, detailed description of all functions refer to your manual.

If for example 1/40 s is the optimal shutter speed for capturing a scene, the introduction of light from a properly set flash may change it to 1/60 s or even 1/80 s, but not to something like 1/160 s or above. That would mean that anything outside of the flash lit area would be in darkness, the presence of the flash would be obvious and the light clearly unnatural.

To recap: I look at the available light and estimate the appropriate flash power output. I set the shutter speed slightly higher than what the exposure meter in camera "recommends". I fire off a few test shots, possibly tweaking both – the power of the flash and the shutter speed. Once everything is set to how I want, I proceed to shoot the 'real' images.

Quick thoughts: It's great if you have an assistant to help you with the flash, but it's not a necessity. The flash in a softbox can be mounted onto a stand or even the same tripod you may be occasionally using with your camera.

A word on gels: There are no concrete rules for using gels. A lot of them provide a very similar effect. In the end it's a matter of personal preference. Again, experiment and see what works best for a given situation.

Right is an illustration of the flash with one of the Rosco Cinegels attached to it with tape.



I almost never use a flash out in the open under direct, harsh sunlight. In my opinion this doesn't achieve the believable results I aim for.

Whenever I do use a flash outdoors, my subjects are asked to move away from direct, harsh light into a shaded area. I also compose the image in a way that hides any signs of available light obviously in conflict with the light that I am creating – i.e. different colored light or light of a different intensity.

As is always the case in these situations, the flash is put in a softbox and gelled to whatever light I am emulating, **however, here I rarely emulate the light available at the time. I prefer the warmer tones of the setting or rising sun.**

The flash output is usually relatively high, because the intensity of the outdoor light, which needs to be slightly overpowered is strong. The flash is positioned at an angle, in order to create the progression of light to dark tones i.e. sculpt the subject's face or body. It's also placed a little above the subject, pointing down, to help give the impression that the light is coming from the sun. The direction is decided mostly by aesthetic reasons.

THE FLASH - SCULPTING WITH NATURAL LIGHT AND A FLASH OUTDOORS



FLASH SETTINGS

1/4 (-0.3)

Approx. Dist from
subject

8 feet / 2.4 m

CAMERA DETAILS

Canon 5D

f/2.8

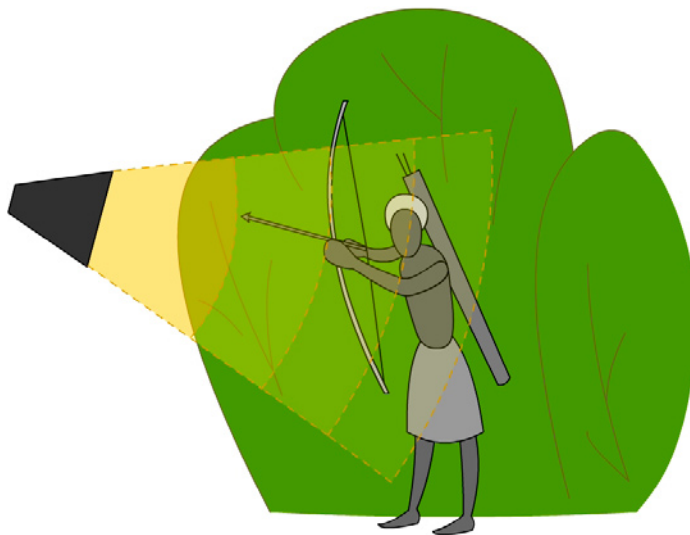
1/125 s

ISO 320

LENS

Canon 24-70 mm 2.8
at 57 mm

The flash is held slightly above head
level and it tilts down a little.



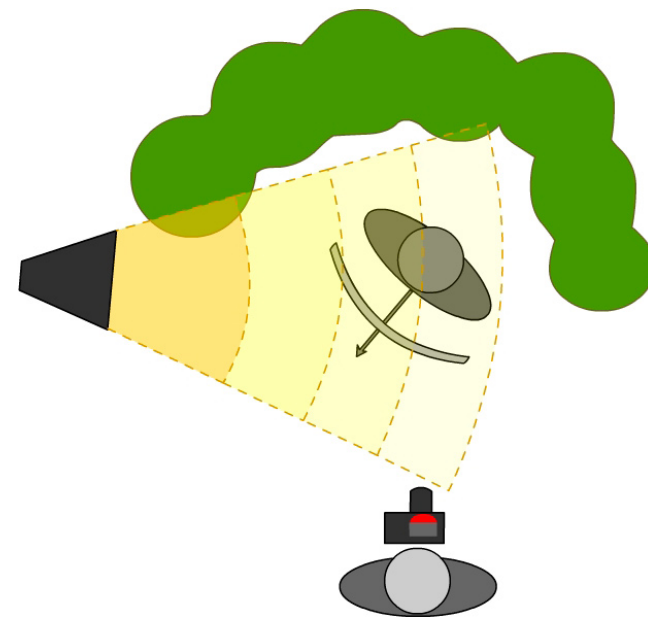
SIDE VIEW

SCENARIO: Available light – harsh midday sun in the open or dull, flat light diffused by dense tree growth. Without an additional light source neither situation is ideal.

OBJECTIVES: Avoid the harsh light. Move towards the diffused, dull light under the tree canopy and create a more dramatic, sculpting light with an off camera flash.

METHOD: The tribal archer is asked to stand in the shade, among the trees. The flash is in a softbox, gelled a very slightly warm color to emulate the color of light from a sun which has begun its decent. Flash output is relatively high and it's handheld, slightly above the subject's head (like the sun), at approximately 45° angle, this allows for sculpting/shaping of the face and more depth in general. The softbox and the distance between the flash and the subject are responsible for spreading and diffusing the light.

The flash and the photographer are both at approx a 45° angle in relation to the front of the tribal archer. The angle of light creates a more dramatic effect and shapes the face of the subject. The tree foliage around and above become a natural diffusers of light.



TOP VIEW

THE FLASH - SCULPTING WITH NATURAL LIGHT AND A FLASH OUTDOORS





A very similar setup to the image of the tribal archer. The girl was shielded from direct, harsh light under the tree canopy. A gelled (slightly warm) flash in a softbox was held slightly above her head, to her left side (frame right). The power of the flash was 1/16 (-3) and the distance was approximately 7 feet or over 2 meters.



Once again the subject is shielded from direct sunlight. This time under the shade of the hut. Notice how any potentially conflicting light is excluded from the frame – there is no sky and no area where direct sunlight falls.

I gelled the flash quite warm here, to simulate light from the setting sun. In a softbox it was held slightly above the man's head at an angle of approximately 45° in relation to him. The distance was a little more than 7 feet.

In a later chapter I'll discuss the use of natural, angled window or door light. If it's not direct and the conditions are right, this type of light has a soft quality and can be great for defining/sculpting facial features and bodies. But often the conditions aren't right; for example, on overcast days window light may not be strong enough and whatever it illuminates will still look fairly dull.

This is where the flash comes in. It can "assist" the natural light or rather, as has been the case so far, create the illusion that existing natural light is stronger than what it is.

Again the quality and color of the available light need to be matched. Because the available light is soft, the use of a softbox is crucial; it will also help spread the light from the flash. Gelling the flash is not so important because the color of the light we're emulating is essentially not so different from an ungelled flash. I however like to gel it just a bit and make it slightly warm, as a matter of personal taste.

Perhaps the main thing is to balance the power of light from the flash and the power of natural light.

Contrast between the light and dark tones is what gives the illusion of sculpting, but we don't want harsh contrasts between parts lit by the flash and those lit by natural light. This means that usually the flash power output will be relatively low, somewhere in the region of 1/32 to 1/128. Making the flash stronger would be an instant giveaway. The only way to know precisely what settings to dial in, is through spending time observing ideally lit situations and experimenting.

THE FLASH - SCULPTING WITH NATURAL LIGHT AND A FLASH INDOORS



SCENARIO: Available light source – overcast daylight from the open doorway, opposite of the subject, to his right. More light falls on the right side of the “Cowboy”, thus his face is slightly shaped/sculpted. However, this light is soft and dull, due to the distance from the subject. Moving closer to the doorway/light source will change the entire composition. Shooting without a flash at the same spot will produce muted highlights and weak contrasts. ISO of over 1000 may also be required - not desirable because of the grain/noise or a longer exposure time - not desirable because of the potential blur if the camera shakes or the subject moves.

OBJECTIVES: Create stronger contrasts and brighter highlights; make the subject’s facial features more pronounced by intensifying the light. Bring down the ISO without increasing exposure time. Avoid blurring by raising the shutter speed.

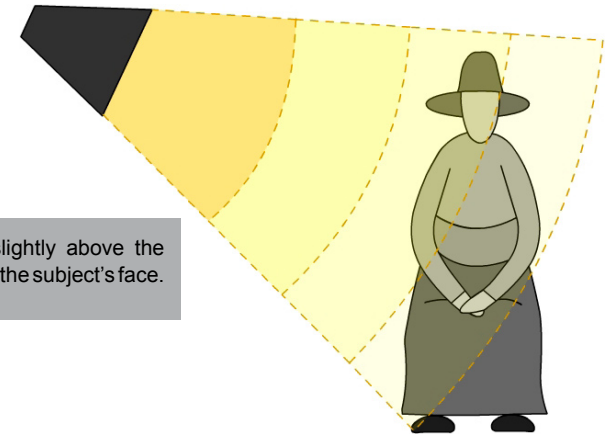
METHOD: Flash gelled (slightly warm color), inside a softbox, hand held, but it can be tripod/stand mounted. The natural light source remains unobstructed, it assists the flash and vice versa – that’s important – the flash should assist and only slightly overpower the natural light. If the output is too strong or the flash is too close to the subject, there will be too much contrast between the part lit with the flash and the rest of the image. The flash power is set with that in mind.

FLASH SETTINGS

1/64 (+0.3)

Approx. Dist from subject

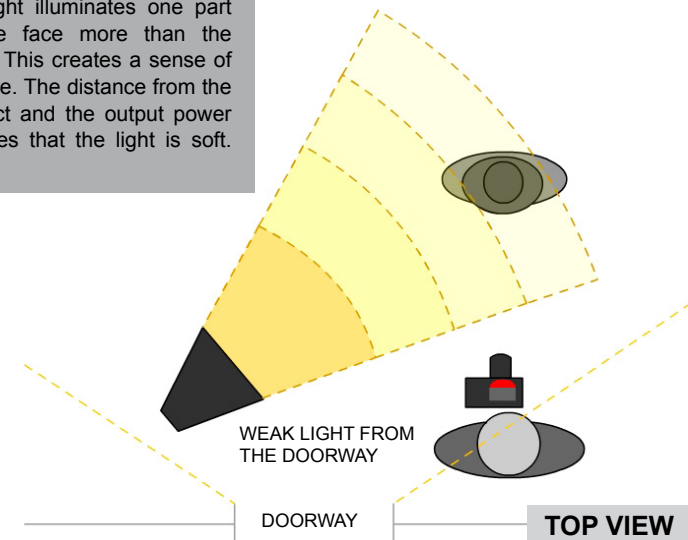
7 feet / 213 cm



The flash is slightly above the hat, pointing at the subject’s face.

SIDE VIEW

The angle is approx. 45° and the light illuminates one part of the face more than the other. This creates a sense of volume. The distance from the subject and the output power ensures that the light is soft.



TOP VIEW

CAMERA DETAILS

Canon 5D

f/2.8

1/60 s

ISO 800

LENS

Canon 24-70 mm f 2.8

THE FLASH - SCULPTING WITH NATURAL LIGHT AND A FLASH INDOORS



THE FLASH - SCULPTING WITH NATURAL LIGHT AND A FLASH INDOORS



Image #1

Canon 5D
Canon 24-70@24mm @ f/3.5
1/60 s
ISO 800
Flash settings 1/32 (-3)

Image #1 - Available light came through the doorway (frame right). A gelled (slightly warm) flash in a softbox “assisted” the available light. It was hand-held from approximately 5 f / 150 cm, a little above the level of the subject’s head, tilted down. To create the sense of volume, the angle of the flash was almost 45° in relation to the subject.

Image #2 - Window light (frame left) was not enough to give me the look I wanted and so I added a gelled flash (slightly warm). It was hand-held, also from about 5 feet, around the level of the window, slightly above the man’s head, tilted down. As with the previous image, the flash was positioned at an angle of approximately 45°, in order to sculpt the subject’s facial features.



Image #2

Canon 5D
Canon 24-70@48mm @ f/2.8
1/80 s
ISO 800
Flash settings 1/64 (+7)

If positioned in the “right” place, an incandescent light bulb can have an appealing effect. It can sculpt subjects, add depth to an image and its soft, yellowish glow can be rather atmospheric. However light bulbs are rarely positioned in the “right” place. They usually illuminate things from above and this means that just like the sun they have the potential to create harsh shadows in unwanted places. Additionally, an incandescent light bulb is often not strong enough for photo-making at lower ISOs and higher shutter speeds.

When dealing with environments lit by light bulbs I essentially make my flash a duplicate of this light source. I gel it to match the color of the light bulb and soften it with a softbox, but I position the flash almost anywhere I need, depending on whether I want to shape a subject’s face, give more light to an area unevenly lit or both. The power output of the flash is again usually just slightly stronger than the source and it depends on how strong the light bulb’s presence is felt in the image.

The glow of the light bulb is as familiar as daylight to almost anyone on the planet, even if the light-bulb itself is not visible in the image. The fact that the viewer is already aware of a common type of artificial light means that the presence of a flash will not even be noticed, as long as the light from the flash looks similar to the light from the light bulb.

THE FLASH - THE FLASH AND THE LIGHT BULB



FLASH SETTINGS

1/64 (+0.3)

Approx. Dist from subject

2 feet / 60 cm

CAMERA DETAILS

Canon 5D

f/2.8

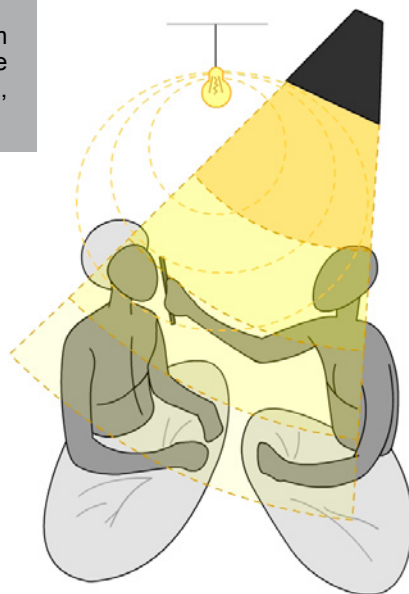
1/60 s

ISO 1000

LENS

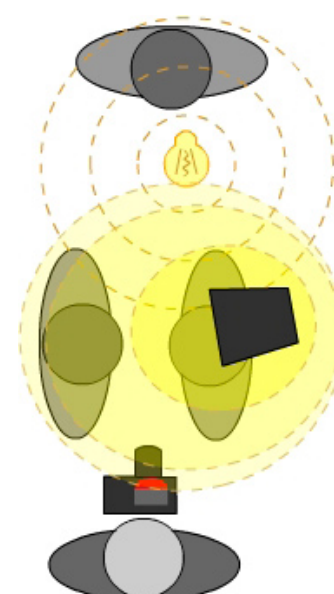
Sigma 20MM f1.8 at f2.8

The flash is placed about 2 feet / 60 cm above the makeup man's head. While the light bulb illuminates the background, the flash adds light to the foreground.



SIDE VIEW

The light bulb is roughly halfway between the foreground men and the artist in the distance. The flash is essentially a duplicate of the light bulb, but it's placed in a position from where it can illuminate more of the side which the photographer is facing.



TOP VIEW

SCENARIO: Available light source - a light bulb which hangs on a cord above the men's heads (not in frame). This light is strong and while the artist in the distance receives the full benefit of it, the men in the foreground are lit on the "wrong" side, not the one that I am photographing. Exposing for the artist in the distance will leave the men in the foreground in darkness, while exposing for them will mean that everything lit by the light bulb (towards the back) will be grossly overexposed.

OBJECTIVES: Reduce the contrast between the well-lit back part of the image and the poorly lit men in the foreground. Ideally the light from the flash should also sculpt the foreground subjects and the result should look like it has been lit from the same light source.

METHOD: A "duplicate" of the available light – a flash in a softbox, gelled warm, to match the light bulb is placed almost directly, above the head of the makeup man. It is then angled towards the artist with the face makeup, but at the same time still illuminates the make-up man (behind side). The flash could have also been placed closer to the POV of the photographer, but my preference for a less refined, rougher look with the shadows influenced the decision.



THE FLASH - THE FLASH AND THE LIGHT BULB



A halogen lamp inside of this sweets-maker's shop illuminated the interior, but not the man's face. Because the shop had no front wall, plenty of light could illuminate the front part during daylight hours. The problem for me was that the sun had already begun its decent and it was simply too dark outside, there would be too much contrast between the man and the background. I used a slightly gelled (warm) flash in a softbox (top right of the frame) to even out the contrast. The angle of the flash (approx 45°) allowed me to create the sense of volume in the man's face and body.

The flash slightly overexposed the yellow sweets and so I brought the exposure down (only in that area) a little in post.



In this case the mahout and his elephant were barely illuminated by an incandescent light bulb from a fairly long distance. The existing light was certainly not enough to make a photo. A flash was gelled to match the color of the light bulb. It was put in a softbox and held directly opposite of the elephant about 5 feet / 150 cm away. My aim here, as always was to avoid an obvious flash look by emulating the kind of light which is common in everyday life. At the same time I wanted to have definition in the features of both of my subjects.

There is something magical about light from a fire; it's very atmospheric and always seems to beautifully shape everything it illuminates. However, in most cases a fire doesn't provide enough light to photograph a scene, at least not the way that I want to. There always has to be a sacrifice, like a very high ISO setting, which will give me unwanted noise or often, even the high ISO isn't enough and a long exposure/low shutter speed is required. This results in blurring, if the camera isn't steady or if someone in the frame moves.

A gelled flash in a softbox can "cure" these problems. If it's set up the right way, the light from the flash can look like it's coming from the fire. To make this happen the flash needs to emulate the color and the direction of light from the fire as much as possible. In these types of images my flash is either outside of the frame or behind an object or a person. Occasionally the flash can create a "trail" of light and then post-processing comes in to mask/darken this trail with simple local adjustments in Lightroom or Camera RAW.

Tip: It's worth taking a photo of the same scene with no flash, to have a reference of what it looks like without the artificial light. This makes it easier to see what light is excessive or unnatural looking and what parts of the image may need to be adjusted.

THE FLASH - PLAYING WITH FIRE



SCENARIO: Small shack. Available light - fire and flame-torch; enough for the human eye to make out the necessary detail, but not enough for the camera to capture it. Without a flash, a very high ISO setting and a long exposure (slow shutter speed) are necessary. The potential result of this is an excessively grainy image that will also be blurred if anyone in the frame moves.

OBJECTIVES: Illuminate the faces of the miners on the right and the details on the shack wall. “Sculpt” the faces and create a sense of volume and depth. Make flash light look like light from the fire. The light should be “believable” and feel like it belongs in the scene.

METHOD: A flash in a softbox is gelled to match the color of the fire. It is set to a low power output not to overwhelm the available light and mounted onto a small tripod as close as possible to the ground, behind the miner on the left of the frame. The flash is aimed up at the faces of the miners at an angle that will illuminate approximately half of the central miner’s face.

FLASH SETTINGS

1/64 (+0.3)

Approx. Dist from subject

5 f / 150 cm

CAMERA DETAILS

Canon 5D

f/2.8

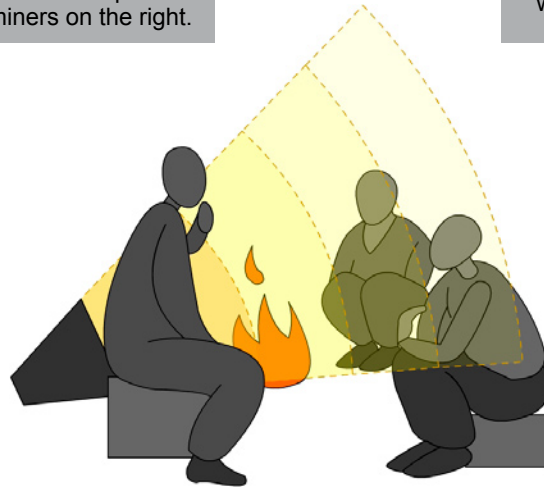
1/50 s

ISO 640

LENS

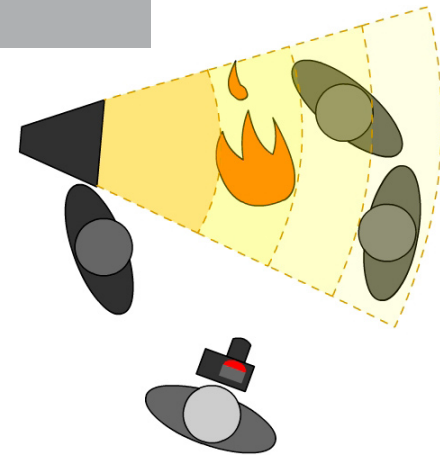
Sigma 20MM f1.8

The flash is low to the ground, behind the fire and hidden by the miner (left side of the frame). It is aimed upwards at the faces of the miners on the right.



SIDE VIEW

The flash is angled to “shape” the faces and to illuminate some of the wall texture.



TOP VIEW



THE FLASH - PLAYING WITH FIRE



Three images of the same scene. The first is captured without a flash and for the other two; a gelled flash in a softbox is used - same position for both images, approximately 7 feet / 213 cm from the subjects, at ground level pointing up. The difference is in the power output settings.

In all images the levels were slightly raised in Camera RAW to bring out the highlights. In the latter two images, the exposure was brought down with the adjustment brush (in bottom left corner) to hide where the flash was coming from.

The first image is obviously very dark; the face of the central man is barely visible, while the others are in complete darkness. Raising exposure in post is impractical because of the amount of noise that will be generated. The latter two images still have the ambience of the fire light, but we are seeing more detail. Image #2 still lacks detail in the areas of the miners on the sides, but the adjustments to brighten up those areas would be minimal. Image #3 is brighter all around because of the stronger flash output. In the end, which of the latter two images is "better" is a matter of personal preference.



THE FLASH - PLAYING WITH FIRE



FLASH SETTINGS

1/128

Approx. Dist from subject

3 feet / 90 cm

CAMERA DETAILS

Canon 5D

f/1.8

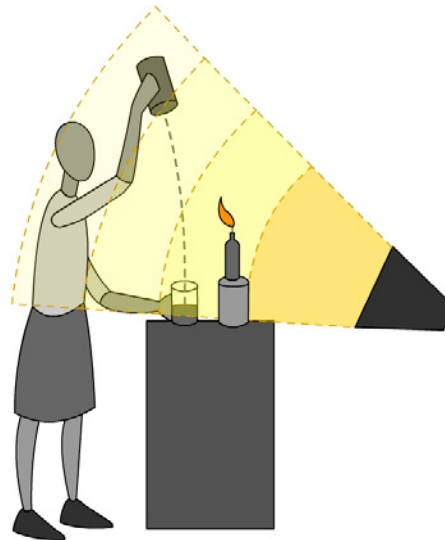
1/30 s

ISO 1250

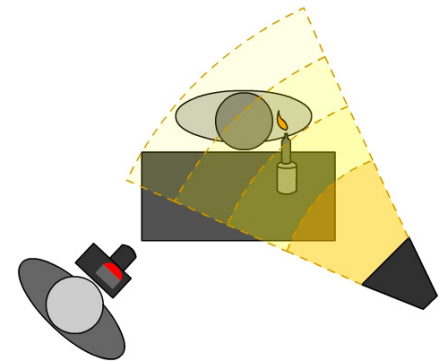
LENS

Sigma 20MM f1.8

The flash is held slightly below the kerosene lamp and pointed up towards the tea maker's face. Essentially I am emulating the direction of the kerosene lamp flame.



SIDE VIEW



TOP VIEW

SCENARIO: Power outage; available light - kerosene lamp and the kitchen fires. Nice ambience, but very weak light, even the human eye has difficulty deciphering much of what's taking place. To photograph without a flash is impractical. The exposure would be so long that most of the image would be nothing more than a blur.

OBJECTIVES: To capture the tea-maker pouring tea. Shape his face. Avoid excessive motion blur and preserve as much of the ambience as possible.

METHOD: A flash in a softbox is gelled to match the color of the kerosene lamp. The aim is to create the illusion that the light is actually coming from the lamp flame. The flash is positioned accordingly. The use of a fast lens, high ISO, a relatively slow shutter speed and a low power output from the flash are crucial to preserve the ambience.

Post processing: In Lightroom or Camera RAW the area at the bottom of the frame is darkened with exposure adjustment brush, to "mask" the presence external light source.

Light at a 45° angle works well to shape the face, as it gets from bright, where the flash is directed to dark, where the light falls off.

THE FLASH - PLAYING WITH FIRE



The Reflector

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- Using the reflector, my equipment 31
- Sculpting and modeling with reflector light 32
- Adding drama with reflector light 36
- Quick fill light 38

With the right conditions and in the right hands, the reflector can be a powerful tool. It can't do the things that a flash can, but it does produce light of a different shape and quality. Some consider this light more natural looking and this makes sense, since the reflector is actually reflecting the rays of the sun.

The biggest benefit of the reflector is that it's not an electronic gadget. It needs no batteries, has no buttons or switches, it just unfolds and as long as there's some strong light to reflect, it's ready for work. However, this is also the reflector's biggest disadvantage. Without existing, strong light (regular light bulbs won't do) it is virtually useless. It also cannot be adjusted or controlled, so the "output" is never as precise as that from a flash.

For travel photographers the reflector has another potential disadvantage – to be truly useful, it needs to be "operated" by an assistant. However, luckily, almost anyone can be an "assistant". If the photographer has a good understanding of the reflector and positions it in an ideal spot, the other person simply has to keep it in place.

When all is said and done, if you can recognize the ideal situations to use the reflector and have someone to hold it for you – the results can be impressive.

If you're using the reflector with natural light, you are at the mercy of nature and your surroundings. To reflect light, a decent sized patch of sunlight is needed and to direct it, you need space to maneuver around that patch of light without blocking it off with your own shadow.

The strength of the reflected light will depend on the strength of the source and on your distance from the subject. Being too close can result in very harsh light, stepping back will make it softer. Bright sunlight can be reflected from more than 10 feet / 3 m away from the subject, so the size of the space you're working in comes into play here too.

In general using the reflector is no rocket science, the whole process is quite intuitive – you can twist, tilt and turn the reflector and the light you'll see at the scene is the light that you will end up with in the photo.

My equipment:

I use a Photoflex Multi disc 5-in-1, 42 Inch reflector. I mostly use the silver/gold side because in my opinion it creates the most believable kind of light.



My primary reason for using the reflector is to do what I rave on about for the large part of this eBook – sculpt and model the features in my subjects' faces and bodies with light.

The idea behind modeling with reflector light is quite similar to modeling with light in general. We need contrast between light and dark tones, meaning there has to be some darkness in the first place. Direct light needs to be taken away. In fact with a reflector, the light modeling can only be done in darker environments, because unlike the flash, the reflector cannot provide brighter light than the sun - sunlight is what it's reflecting.

And so, from a practical standpoint, the subject needs to be in a shaded area and somewhere outside of this area there must be a patch of light bright enough to be reflected. Positioning is important, as we need to be able to reflect the light at the subject from the correct angle, slightly to the side, if reflected front on; we'll simply get the same flat light one gets from an on camera flash. As is the case with a flash, it's better to frame relatively tight and not let conflicting light enter the frame.

THE REFLECTOR - SCULPTING AND MODELING WITH REFLECTOR LIGHT

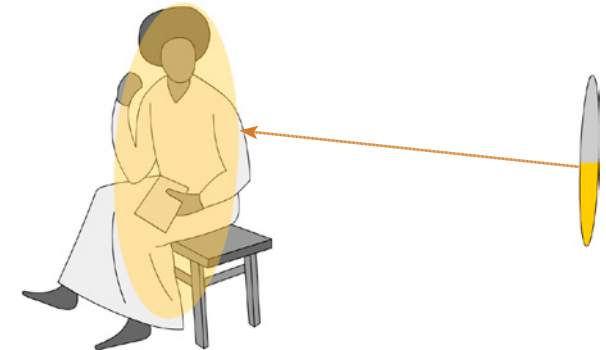


SCENARIO: Ideal setting for shaping the subject with reflector light. The man is in a shaded area - a tea shack made of two walls (front and back) and a roof. There are no side walls, and the strong midday sun can be effectively reflected at the subject from either side.

OBJECTIVES: To add volume to the face and costume. Bring out the vibrant colors – orange turban, blue wall and red wristband.

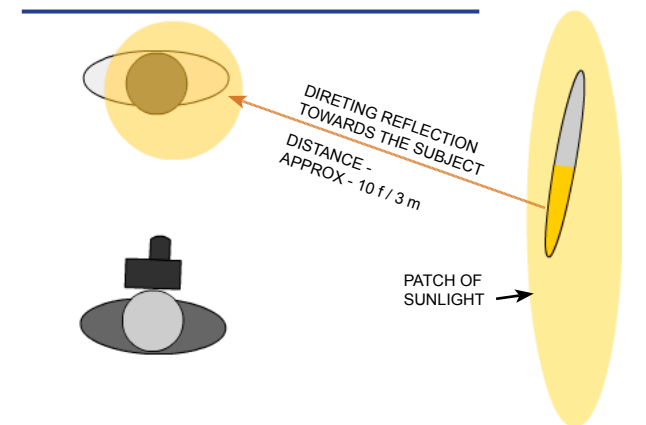
METHOD: The strong sunlight is reflected from a distance with the silver/gold side of a slightly angled reflector (see diagrams). The color of the reflected light is responsible for the glow; the distance makes the reflected light slightly softer and spreads it, while the angle allows for the gradual progression of light to dark tones, i.e. sculpting.

The reflector is a fair distance away from the subject, to diffuse the light.



SIDE VIEW

The reflector (silver/gold side) is positioned under a patch of sunlight, outside of the tea shack, where there is enough light to reflect at the subject. It is angled from the side to sculpt the man's face with a gradual progression of light to dark tones.



TOP VIEW

**CAMERA
DETAILS**
Canon 400D
f/2.8

1/500 s
ISO 200

LENS
Sigma 20 mm f 1.8@f

UNDERSTANDING LIGHT: REFLECTOR - LESSON 1 - SCULPTING THE SUBJECT “MAN WITH A RELIGIOUS SONG BOOK”



THE REFLECTOR - SCULPTING AND MODELING WITH REFLECTOR LIGHT



Image #1

Canon 400D
Sigma 20 mm f/1.8 @ f/2.8
1/160 s
ISO 800

As mentioned before, to sculpt the subject with reflector light it is necessary to shield him/her from direct, harsh sunlight and to have a good patch of light to reflect. Here are two more examples.

The man was photographed in his dark hut. The reflector is angled at approximately 45° (frame right). With a small area of the silver/gold side of the reflector **I am basically re-channeling direct morning sunlight that entered though the window.**

The boy was photographed in the shade of a bus-stop shelter. Reflector light (silver/gold) came from the right side of the frame. Because the shade was not very dark, the contrast is not as high, but enough to create the sense of volume in the boy's face.



Image #2

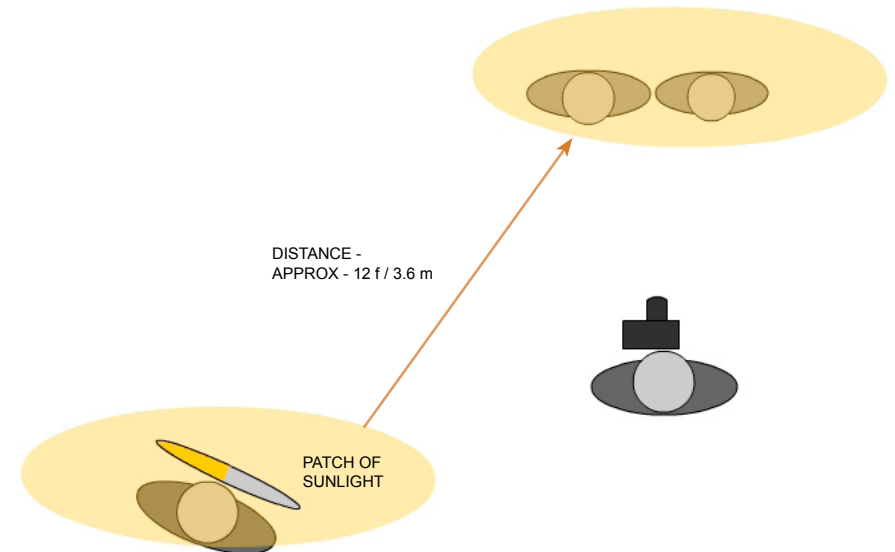
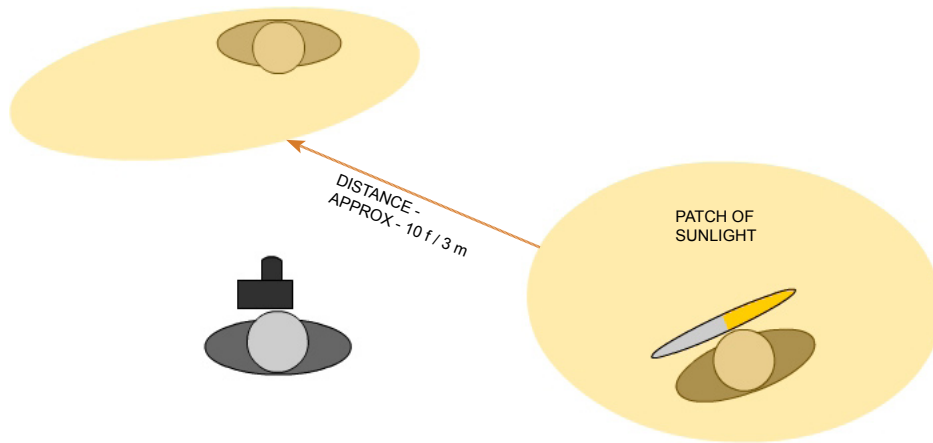
Canon 400D
Canon 28 mm f/2.8 @ f/2.8
1/125 s
ISO 400

The almost instant setup time of the reflector makes it an ideal tool for quickly turning a potentially boring shot in dull settings into a dramatic one. However, the fall off of light with the reflector can be quite harsh and the circle it creates can be clearly visible if care isn't taken. For ideal results we need to get back from the subject, usually at least 10 feet / 3 Meters. This will spread and soften the light.

We also need to angle the reflector in a way that will make the light look believable. There isn't any one particular formula that will achieve this; it depends on the situation and on where the available light already falls. The aim is to make the transition between the shadow and reflector light as seamless as possible or to make the reflector light smoothly "blend" in with the available light.

On the next page are a couple of examples with diagrams.

THE REFLECTOR - ADDING DRAMA WITH REFLECTOR LIGHT



Quick fill light

Unless it's right next to the subject, the reflector is only strong enough to soften deep shadows. However, its quick setup and maneuverability make it convenient for creating fill light in certain circumstances. As you will see on the next page, when you can get close enough to the subject and when time to shoot is limited, it's tough to find a better tool for the job than the reflector.

THE REFLECTOR - QUICK FILL LIGHT



SCENARIO: After finishing performing the boy has paused for a moment, but his troupe is proceeding and there is only enough time for a quick portrait. The sunlight is very harsh and his hat is casting a strong shadow over his face. I have a camera, a friend with a reflector and very little time.

OBJECTIVES: To make a portrait of the boy without the strong shadow on his face.

METHOD: The shadow is actually not so bad (if you have a reflector); the hat has blocked out the harsh light and now it's possible to create a softer, more pleasing light. The silver/gold side of the reflector is pointed up at the boy's face from below at a slight angle (see SIDE VIEW and TOP VIEW). There is plenty of light to reflect and to get rid of that shadow.

The reflector is held approximately 1 foot / 30 cm away from the boy's face. There is plenty of light to get rid of the shadow cast by the hat.

CAMERA DETAILS

Canon 400D
f/2.8
1/250 s
ISO 400

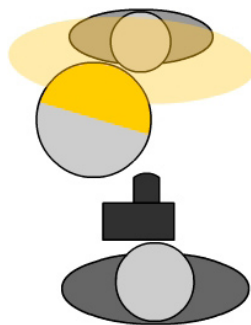
LENS

Canon 50 mm f 2.8



SIDE VIEW

The reflector is not directly under the face, but slightly to the right of it.



TOP VIEW

The boy (left) runs off to join the other performers. Notice the harsh sunlight and the bleached colors.





Natural Light

- Introduction 42
- Using natural light 43
- Sculpting with natural light indoors 45
- The “Magic Hour” 49
- Backlight 51

Natural light is elusive; we have no control over its source – the sun. It comes in various forms and to say that one form is better than another would be too simplistic.

Different types of natural light have different uses and to understand them, as well as develop our own vision we have to look at natural light in a more analytical way. We must observe its behavior and how it interacts with the elements, objects and spaces, whether in life or in images.

Personally I don't like shooting outdoors under the harsh midday sun and it's rarely an absolute necessity for me. I prefer the soft light of the "magic hour", diffused side light from a window or various manifestations of light interacting with the elements like dust or fog.

With the aim of getting educated enough to anticipate and to be prepared to shoot under natural light that appeals to me, I have found it helpful to ask the following questions, *in addition to observing the light's behavior*:

What has caused this particular light? When does it occur? And if I am in a place which I can come back to: Is it going to happen again?

The image of the wrestlers (next page) came about as a result of observing and asking the mentioned questions.

Here's a quick rundown:

Observation: The light that penetrates through the window forms a dramatic looking beam. This beam moves from side to side as the sun sets over the horizon. It looks more pronounced from certain angles and when there are lots of sand particles in the air.

Cause: The beam is formed when direct light from the sun on its decent hits the sand particles, which are kicked up into the air by the wrestlers.

Is this going to happen again?: Yes, this “phenomenon” happens any time there is an interaction between direct sunlight and particles of sand, dust or moisture. Thus any time there is a training session in the wrestling school on a sunny day the same scenario will be “reproduced”.

Natural light creates countless scenarios, but in this section I will touch on the ones which are more or less predictable and where it's possible to replicate my approach. In any case, the information on the following pages should be enough to gain a solid understanding of natural light, while observing and asking questions is applicable to all situations.

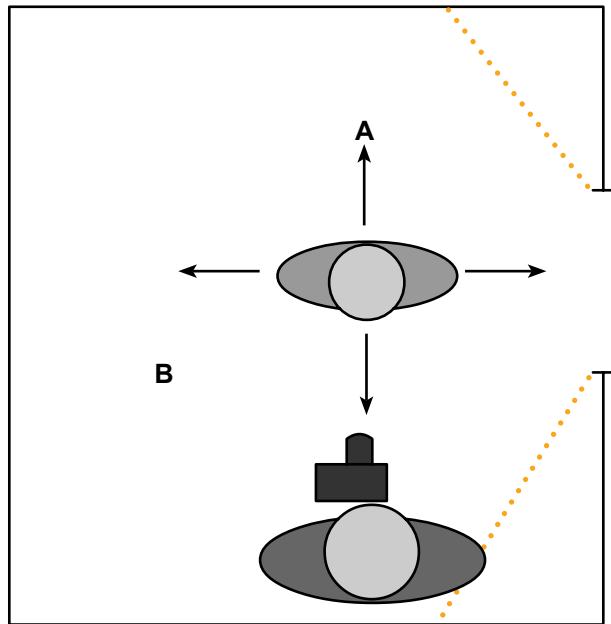
The Exif data for the following shot:

Camera: Canon 5D Lens: Canon 24-70@40 mm @ f/2.8 1/200 s ISO 1250



The middle hours of a sunny day produce the harshest and “least photogenic” light for outdoor, people shots. I avoid shooting in this light as much as possible, but I don’t avoid shooting altogether.

The midday hours can be well utilized for indoor portraits, with natural light coming through a doorway or a window. While we do need fairly strong light, it should not be direct or it will be the same harsh light that we are trying to avoid outdoors. Practically speaking, if we want soft light, we want the window to be positioned on any side that isn’t receiving *direct* sunlight.



Once we’re positioned ideally, we should get nice, soft light, capable of beautifully sculpting the subjects’ faces and bodies. If the interior space and door/window are of sufficient size, we can actually control (to an extent) the angle of light as well as its intensity. **The diagram on the left illustrates how this can be achieved.**

Moving the subject along line A changes the angle of light. By moving the subject along line B we can control the intensity of the light. Moving further away from the window softens the intensity of light.

Something to remember: We don’t need to shoot the subject turned towards us or three quarters of the way towards the light source, but it is easy to lose the catch-light in the eyes when we don’t. It is worthwhile paying attention to this, as in many cases the catch-light is literally the sparkle that gives life to an image.



Image #1

Canon 350D
Canon 28 mm f/2.8@f/2.8
1/80 s
ISO 800

Image #2

Canon 350D
Canon 28 mm f/2.8@f/2.8
1/60 s
ISO 800

Both images were taken inside the same space. Soft window light is coming from the right side of the frame.



2

During market day in the small town of Kanchanpur, Tripura the town center filled with Reang tribals, the people I came to the area for. Unfortunately, the market started when light was already too harsh to shoot outdoors and the whole thing wrapped up much before sunset.

I had no lighting equipment with me, but I wanted to have the sense of depth and volume in those faces and bodies. My only hope was to find a closed space with a window or an open doorway, something similar to the one in the diagram on the previous page. Luckily a friend I met had a shop right in the middle of the market and this shop had a room at the back, which was ideally lit by natural light. The room became my “photo studio” for the day.

The moral of the story is - understand natural light and you will be able to improvise and find a lighting solution that will produce aesthetically pleasing results, even in challenging situations.





Those even half-serious about photography are likely to have heard of the “magic hour” which takes place just after sunrise and a little before sunset. During this time the light is of a warm color, it comes from the side and it’s soft. In practical terms this means that the subject will have a warm glow, it can be shaped/sculpted and harsh shadows in unwanted places can be avoided, because the light is not coming from above.

When I shoot outdoors I usually try to incorporate the landscape or the surroundings in at least some way. I can shoot indoors and against empty backgrounds during virtually any part of the day, but the window of opportunity to shoot a subject against a beautifully lit natural backdrop is quite small. That is why planning before the “magic hour” is vital.

As mentioned before, to help me plan, I observe and ask questions about light, but practical knowledge that only comes from “doing” is also important. One simple thing to that’ll help anyone who hasn’t looked at light in an analytical way is to **go outdoors on a sunny day before sunset and to watch how the light “works”**. **Get a friend to stand in as a model and photograph him/her from different angles at different stages of the “magic hour”**.

All of the images on the next page are results of planning. I had been to all of the locations at least hours and sometimes days before the photo was taken. At times I had already met the subjects and it was just a matter of waiting for the right light. Of course there was still a lot of improvising to be done, but at least the improvising was done within an ideally lit area and at the right time.

Something to remember – shadows are very long at this time, as can be seen in image #1 next page. We should be aware of this, especially when shooting wide. It’s easy to end up in our own images or have shadows of friends or unwanted objects end up there. It’s also worth thinking of how we can incorporate the shadows into the image, because just ignoring them and carelessly cutting them off may not produce the best results, aesthetically speaking.

NATURAL LIGHT - THE MAGIC HOUR



Backlight is when in relation to the photographer, the light is behind the subject, whether directly or a bit to the side. While the sun is the source of light, we're not necessarily shooting into it. The backlight can be provided by a bright sky, a reflective wall or a window. The idea of backlit images is nothing new; it's just that there are various ways shooting them.

The most common use of backlight is in silhouettes against the rising or setting sun or a bright sky just before or after this time. Shooting these sorts of images is pretty straight forward; we have to find a "clean" background that doesn't "blend in" with the subject and we have to shoot from a low angle i.e. get on the ground, to separate the subject from the horizon (image #1) Alternatively, the ground can be reflective (image #4) this will also prevent the subject from "blending in".

We can experiment a little by composing in a way where the sunlight is slightly off to the side and the sun itself is excluded from the frame. (image #3) No sun means no extreme, bright light. The result is - less contrast between the subject and the background and more light and detail in the foreground.

Natural backlight doesn't only have to be used outdoors; in fact when we move indoors, things have the capacity to get more complex and interesting. Backlight indoors with light coming from additional directions turns the space we're shooting in into a studio, albeit without any of the equipment.

The man in the doorway (image #2) is an example of an image lit from the back and the front. The man's figure is almost a silhouette with no visible details. However, the front light does illuminate other parts of the image and rather than having nothing but dark space everywhere except for the doorway, we see additional details which add elements to the story.

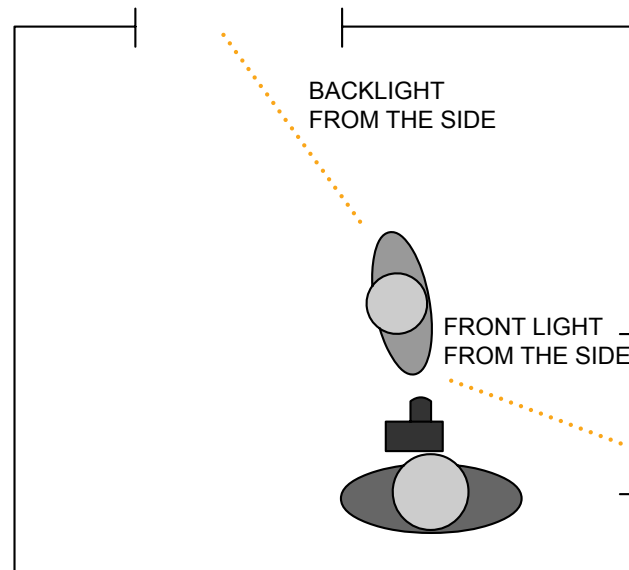
NATURAL LIGHT - BACKLIGHT



NATURAL LIGHT - BACKLIGHT



These two photos were shot at the same place – a Buddhist temple in the Himalayas. There were two light sources; back light from a window (slightly to the side) lit the outlines of the subjects and front light, through the doorway (also slightly to the side) illuminated some of the details in faces and costumes.



The diagram refers to image #1, but the setting for image #2 is identical.

Well, that's about it. Now it's time to get out there and begin shooting; nothing we read in books is a substitute for actually "doing" things.

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