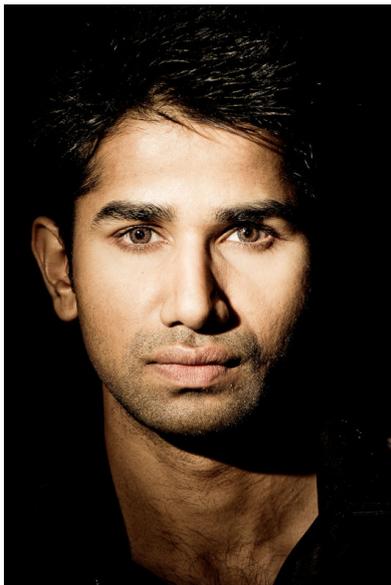


## Off-Camera Flash Photography - The Basics



*"The Princess of St Margaret's Bay"* – In front of a white cliff in Dover.

2 flashguns remotely triggered at full power into a silver umbrella hand-held at camera right pointing 45 degrees down at the model. The two flashguns shooting into the umbrella are acting as one single flash with more power, the whole set is actually a single light source. The 11am sun is here the secondary light illuminating the environment and acting as a hair light.



*"Harshn"* – Headshot in Parkland Walk.

1 flashgun in manual mode at camera left. This shot was taken outdoors in early evening. The black background was achieved by having a shutter speed of 1/250 sec @f/7.1 with an ISO of 1250 to bring in a bit of grain. The exposure for the model's face was achieved with trials and errors by adjusting the flash power setting.

By adjusting the flash position and tilt/swivel angle you control the size and direction of the shadow on the face. Here, a side lighting reveals the depth.

One single light source is often all you need.

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## INTRODUCTION

Most photographers started their photographic adventure with available light. It is true that Nature has provided us with a fantastic source of light: the Sun. Our Sun is a very powerful source of light which color changes at different time of the day giving very different feelings to the images captured. Its light is very harsh creating defined dark shadows, but Nature has given us clouds to soften that light.

When working indoors or at night, photographers can still take advantage of existing available light from the environment such as stage lighting or city lights which offers a wide range of tones and intensity variation.

So why use any other light?

When available light is nice and there is enough of it, you usually won't need anything else and would create fantastic photographs. But what if available light is weak/inexistent (in a church, at night in the wood...) or just ugly (sodium vapor light or in the wood surrounded by green foliage...)? Or maybe the light is just lovely on the background landscape but your subject is in the shade... This is few of the multiple reasons you would want to have your own available light ready to pop out of your bag any time you would need it: a flashgun.

Many of us have encountered a situation where available light is just not useable and started to play with the camera's popup flash. Although the result can be very decent in some situations is usually very deceptive. Then we decide to buy a proper external flashgun, put it on the camera hotshoe and start to shoot away... another deception when you realize that your shining expensive new toy is only blinding your subject and gives barely the same result. What's next? The toy ends up on eBay or collecting dust. What's wrong? Not the camera, not the flashgun. It's us, or actually our skills to use a flashgun properly.

Unlike light sources we usually see, a flashgun does not deliver a continuous light but a very short burst of high intensity light. This is why it is behaving differently and would give inconsistent results when used randomly.

This introduction to off-camera flash is targeting photographers willing to learn how to use a portable flashgun to its best and can spend regular time practicing the technique. It's not difficult but you need to be committed.

What is required from you is:

- An understanding of your camera's settings: aperture, shutter speed & ISO
- Owning a flashgun that can be set to manual and allows you to change its power setting such as Nikon SB-600, SB-800, SB-900 or Canon 430ex, 580ex. Some old flashguns such as Vivitar 285HV or Sunpak 383s are also an affordable but efficient solution.
- A way to trigger the flashgun remotely: PC Sync cord, TTL cable, Nikon CLS, Canon STE-2, IR trigger, radio trigger (Cactus, Pocket Wizard, Elinchrom...)

## I. Three important points to know about your light.

Now that you know how to expose for your flash and balance the ambient in order to get the exposure ratio you want for your image, there are 3 important points you need to know about the light. Those light properties are very important, as what will differentiate two properly exposed images is the control of those points.

Here they are:

### i. The colour of the light.

A good example would be to take a photograph of a landscape at different time of the day:

- The early morning light has a cold blue cast, giving a feeling of peace.
- The mid-day light is very bright and harsh accurately revealing colours and tones.
- The sunset light is warm, giving a feeling of romance.

The colour of your light is important, as it will communicate a feeling, a mood to your viewers. You can control the colour of your flash light by either using a colour gel on your flash or bounce your flash light off a coloured surface.

### ii. The direction of the light.

In the real world our eyes see scenes in 3D but our current DSLR cameras are generating 2D images. How would you reveal the sense of depth? Again lets see the example of a landscape. It is well known that to take a great landscape image you need to wait for sunset or dawn. Not only for the colour of light at that time of the day but also for the angle that light is coming from. A sun low near the horizon will produce a light will hit your landscape by the side casting shadows. Those shadows are what will reveal depth in your 2D image.

When using a speedlight to light a person, the direction of your light and its angle will reveal the shape of the face and body.

An on-camera flash will come from straight in front of the person flattening all their features just as a mid-day sun is flattening a landscape. That is why off-camera flash is the way to go, giving full control on the direction of your light.

### iii. The quality of the light.

*The quality of light is whether the light is harsh or soft.*

Harsh lights create harsh and defined shadows and high contrast image, they are good when you need to reveal the texture of a light surface (white paper, light coloured wood, cheekbones of a white skinned person) because of the shadows they are creating. Harsh lights can suit portraits of male

models but used on some female models they can be unflattering revealing all imperfections of the skin.

Soft lights create softer and diffused shadows, they are great to hide skin imperfections and avoid highlights on dark skinned faces. Because shadows are more or less invisible on dark surfaces, soft light are used to reveal the textured of darker subjects.

*What makes a light soft or harsh?*

A first quick answer is the size of the light, the bigger the light the softer. But what about the Sun then? It is way bigger than the Earth but still produces the harshest light out there. This is because the Sun is so far away that it seems tiny. So actually, what defines the quality of the light is its apparent size relative to the subject it is lighting. So the bigger and closer, the softer. Take a 60" photographic umbrella, if you use it to light your subject at 50 cm away the light is very soft for a headshot. Move it 10 meters away and it becomes harsh. Take a speedlight to light a human model at 1 meter away, the light is harsh. Now move use the same speedlight to light an insect at 10 cm away, because the light at this distance seems huge compare to the insect, it will be soft.

Your work is to define how soft or harsh should your light be for the subject you are taking a picture of.

*How to soften my light?*

If you are photographing a person, by default your speedlight is producing a harsh light. How to soften that light then? If you are using your speedlight on-camera (not advised but sometimes cannot be avoid) then one effective way is to bounce your light off a large surface such as the ceiling or a nearby wall. Most of recent speedlights will allow you to tilt and swivel the flash head up/down and to the sides. By pointing your flash head towards the ceiling you will create a larger light source coming from above. Depending from how high the ceiling is this can or not suit the image. A very high ceiling will either not be useable because of the loss of light power or create shadows under the eyebrows hiding the eyes, or under the chins. Using a nearby white wall can be very efficient as well, this is how I took the following picture:



If you plan to bounce off ceiling/walls, the use of a diffusion cap (Stofen, Gary Fong LightSphere) can be a great help. Those flash diffusers are sending the light from your flashgun all around the place allowing it to bounce off surrounding objects back to your subjects like existing lights (lamps, windows...) would do. Outdoors they are of less help because there is nothing to bounce off of.

Going off-camera flash, you can still bounce off large surfaces but the use of light diffusion accessories such as a photographic umbrella or a softbox will be more efficient and gives you independence. You can take them indoors/outdoors to any location.

Exposing your subject for the flash shooting thru a diffusion accessory is the same as exposing for a bare flash. But you will need to dial up your flash power as those accessories are weakening your light.

## **II. Exposing for the flash.**

### **i. The flash light only cares about the aperture.**

The exposure for the flash is only affected by the aperture.

### **ii. At same aperture settings, changing the shutter speed will only affect the exposure for the ambient lit subjects.**

### **iii. At same shutter speed settings, changing the aperture will affect the exposure for the flash lit subjects AND ALSO the ambient lit subjects.**

### **iv. How to expose for the flash?**

1. First of all, set both your camera and flash unit to Manual mode. This will allow you a total control on your light.
2. Then set your camera shutter speed at the Flash Max Sync speed (1/200 sec for most cameras), this shutter speed will ensure a sharp image when hand holding the camera. Set your aperture to lets say f/8 and ISO 100 for the best image quality.
3. Compose and take a shot.
4. Look at your LCD to judge the composition and overall lighting. But bear in mind the LCD is not an accurate display. To accurately judge your exposure you need to display the histogram on your LCD (please refer to your camera's manual for how to bring up the histogram on your LCD display).
5. By analyzing the histogram, if you will decide whether re-adjust the exposure for the flash or not. To do this you have three ways:
  - a. Dial the power of your flash up or down to compensate an under or over-exposed image. Some flash units will only allow you to dial by step of 1 stop increment. Most of recent flash units allows dialing at 1/3 of a stop increment, which is more accurate and useful.

- b. Dial your camera aperture up or down to compensate an under or over-exposed image. The bigger the aperture (smaller number) the more light will be captured.
- c. A third alternative solution is to modify the power of the flash light by physically moving the flash unit itself closer or further away from the subject. By doubling the distance flash/subject you are dividing the flash power by 4: that is the inverse square law.

Note: dialing the flash power by 1 stop is equivalent to dialing the camera's aperture in the same direction.

6. Repeat steps 3, 4 & 5 if needed.

As you will get more experience at determining the exposure of your flash with trials and errors, your speed will improve and you will get a more accurate judgment of your flash exposure.

### **III. Balancing the ambient.**

One great thing about lighting your subjects with a flash unit is that you can control the exposure for the flash lit subjects separately from the exposure for the ambient lit ones.

For example, for a portrait shot in front of a sunset landscape, this will allow you to properly expose your subject and separately control the brightness and tones in the background.

- i. A general approach.

A basic general approach to balancing the flash with the ambient is to start composing and taking test shots with ambient light only until what is going to be the background of your picture looks good. Then according to your test you can either leave it as is or darken in by a stop or two by either choosing a faster shutter speed or closing the aperture. Once you are happy with the ambient exposure, bring in a flashgun and adjust its power until your main subject is properly exposed.

In the following example, after trials and errors the ambient was exposed for ISO 400, 4 sec @ f/5.0. Keeping these settings, I've added a flashgun mounted with a grid spot (see the accessories chapter).



For those who are not very technical you can just stick with this approach until you feel comfortable with it. You can even set your flashgun to TTL/Auto mode and you will be happy with the results many times.

For those willing to have more control and understanding there are 2 approaches to balancing the ambient.

#### **IV. Accessories: light modifiers.**

Even though with a single bare flashgun you can already increase your image quality by a lot, adding some light modifiers to your gear bag once you have mastered your speedlight will give a boost to your creativity.

Here is a list of most important light modifiers:

- Umbrellas and softboxes. We've already talked about them earlier. They are used to soften your light. Some softboxes are collapsible and thus portable.
- Diffusion caps such as Stofen or Lightsphere and Whaletail. They are great accessories to help softening the light when used to bounce off large surface indoors.
- Colour gels. They are coloured plastic films that you put in front of your flash unit. Their purpose is to colour the light. You would use them either to create a coloured background or to match the color temperature of the existing light sources (tungsten/fluorescent bulbs...).
- Gobos. A gobo (short for go between) is what goes between the light source and the subject. Its purpose is to block the light from hitting part of the scene or the camera lens to avoid flares. Because what's important besides knowing what you need to light is knowing what you need NOT to light.
- Snoots. A snoot is basically a gobo that wraps around your flash unit creating a tunnel that directs the light into a tight light beam. I usually use this technique to light a small part of a scene or just to light a face with the flash leaving all the rest to the ambient light.
- Grids or grid spots have a similar purpose to the snoots but they produce a beam with a soft edge shaped as a perfect circle.
- Reflectors. If you are using one single flash, the use of a reflector will help you reduce the high contrast by filling-in the shadows. It will reflect the light from your flash back to the part of the face that is in shadow.

#### **V. Want to learn more?**

This is a short and simplified version of my off-camera technique, it should help you start with experimenting with your flashgun.

You can also view the presentation online at the following address:  
<http://www.qhphotography.com/Flash-Photography-presentation-2>

If you have more questions or are looking for some courses, please contact me via my website at <http://www.qhphotography.com/>