

On & Off Camera

FLASH PHOTOGRAPHY

















The Two Types of Flashes

TTL flash (Through The Lens Metering)

- ◎ Light and exposure is automatically controlled by sophisticated communications between the flash and camera

Manual flash

- ◎ Flash output is manually controlled by power settings.

TTL Flash (Through the Lens Metering)

Pros

- ⦿ Automatically adjusts lighting
- ⦿ Responds in quickly changing and unpredictable shooting situations
- ⦿ Output of flash can be modified through flash Exposure Compensation
- ⦿ Correct exposure regardless of the aperture or flash-to-subject distance

Best for:

- ⦿ Wedding and Event Photography
- ⦿ Outdoor Fill Flash
- ⦿ Night Portraits
- ⦿ Casual shooting

TTL Flash (Through the Lens Metering)

Cons

- ⦿ Automatic flash evaluations can be fooled and give Incorrect exposures
- ⦿ Flash compensation can be cumbersome to access
- ⦿ TTL flashes are more expensive
- ⦿ TTL flashes are dedicated to one brand
- ⦿ Setting up multiple flashes can be complicated and time-consuming

Manual flash

Pros

- ⦿ Inexpensive (radio communication for under \$100)
- ⦿ Operating devices is relatively simple and straightforward
- ⦿ Working with multiple flashes is straightforward
- ⦿ Manual Flashes are not camera brand specific
- ⦿ Modifying adjustments are quick and straightforward

Best for:

- ⦿ Architectural photography
- ⦿ Portrait photography
- ⦿ Multiple off camera flash photography
- ⦿ Studio photography where consistent results are Important.

Calculating flash exposure (The dealbreaker)



Back in the film days, calculating flash exposure either required the use of an expensive flash meter or estimating off of a flash scale.

With the modern digital camera, it's easy to tell whether your exposure is correct just by reviewing your image and histogram.



Yongnuo YN560 IV Speedlite

- Built in radio receivers and transmitter
- Power and zoom adjusted can be controlled through groups remotely
- power output comparable to top-of-the-line Canon and Nikon units
- the flash sells for \$70 so it's very affordable to purchase a number of flashes

Since there is no US warranty, I recommend buying them from B&H with the Square Deal warranty..



Yongnuo YN560 Speedlite System



Yongnuo YN660 Speedlite

QUALITY OF LIGHT

Soft light
&
Hard light

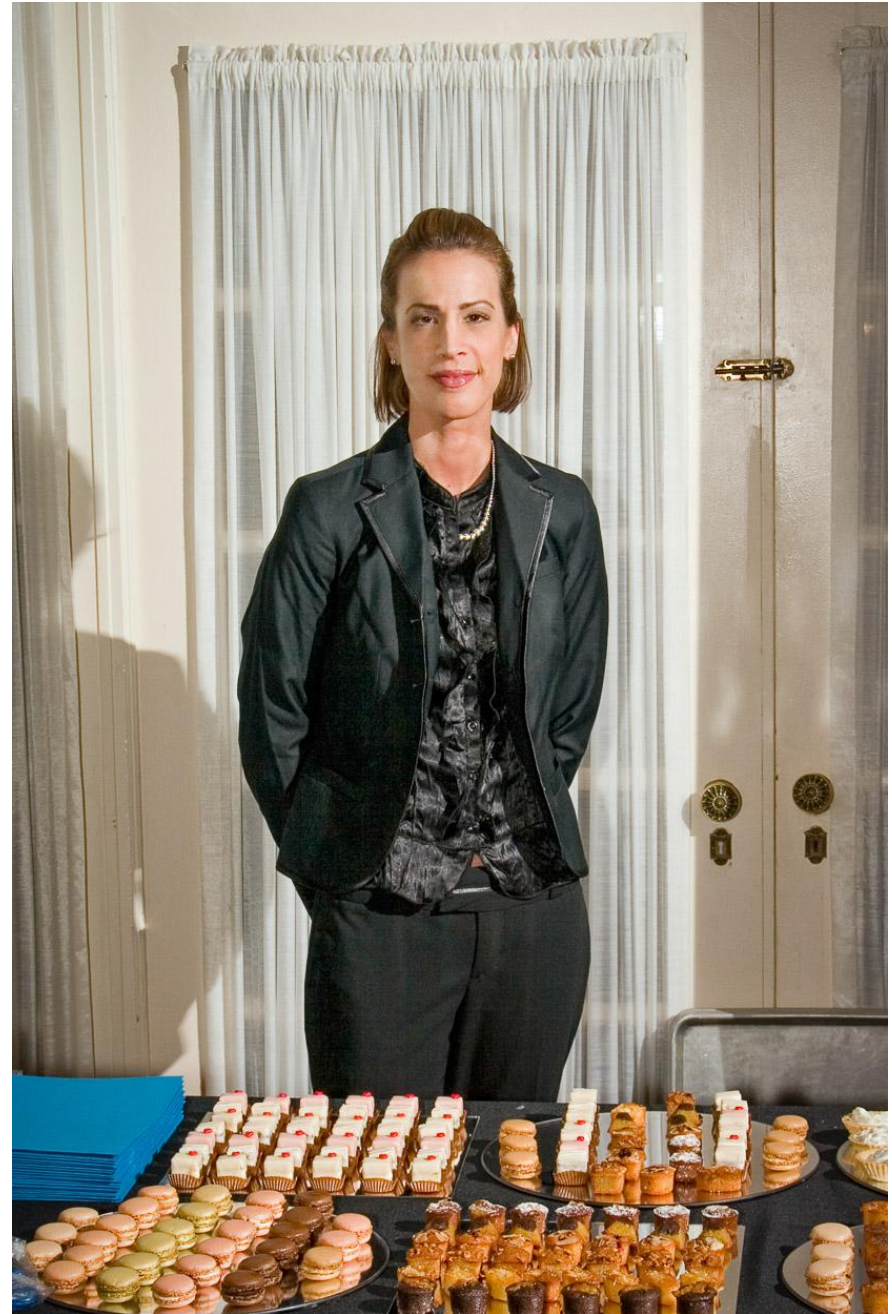
Softlight

The larger the light source the softer or more diffused the light becomes. Diffused light casts a less distinct shadow and creates a smoother looking skin tone. The most common light diffusers are umbrellas and soft boxes. Bouncing the flash off the ceiling or wall is another way to get a softer or more diffused lighting effect.



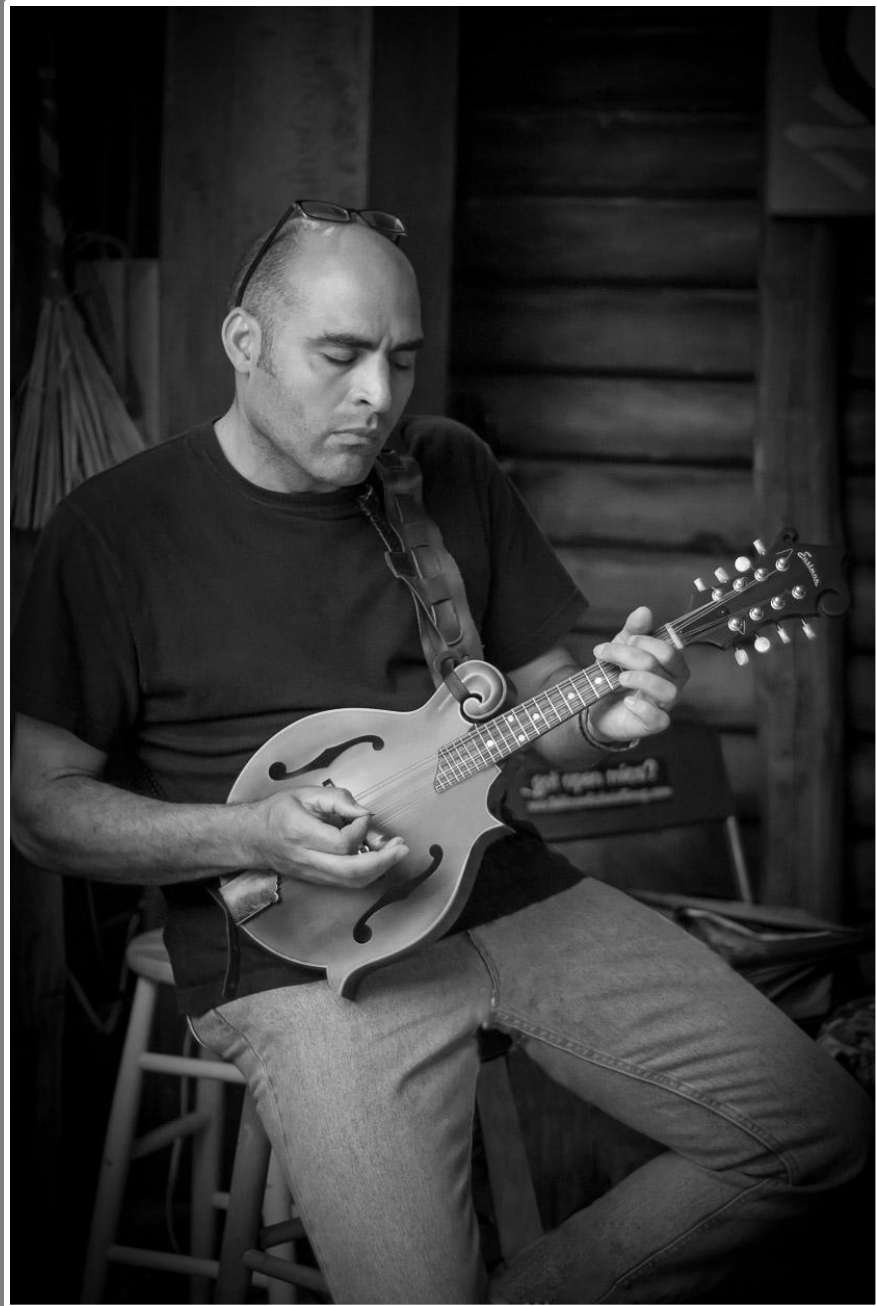
Hardlight

Smaller light sources create hard light. On camera flashes and bare light bulbs are common ways of producing this kind of light. Hard light produces very distinct shadows and can emphasize textures on skin.



On Camera Flash









Adding a second flash with umbrella







Flash Sync Speed

A camera flash produces a tremendous amount of light in a very short period of time. (1/800 - 1/10,000 of a second)

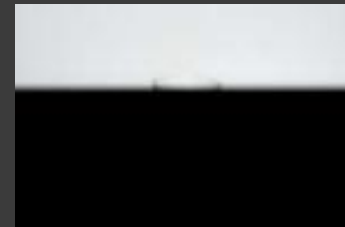
Because of this quick burst of light, most modern digital SLRs have a maximum shutter sync speed of approximately 200th of a second. Some cameras can go a little higher and some need to be lower, but exceeding the maximum sync speed when using flash will cut off the light from reaching the bottom frame of your image



200



320



500

When using a dedicated flash, the camera will automatically know not to shoot at a shutter speed faster than its maximum sync speed.

When using a manual flash you must keep your shutter speed at or below the maximum sync speed



Cameras with electronic shutters such as high-end point-and-shoot's, do not have a flash sync limitations with manual flashes

(Oddly my Canon G12 will not allow me to shoot past 250 with a dedicated flash but will with a manual flash.)



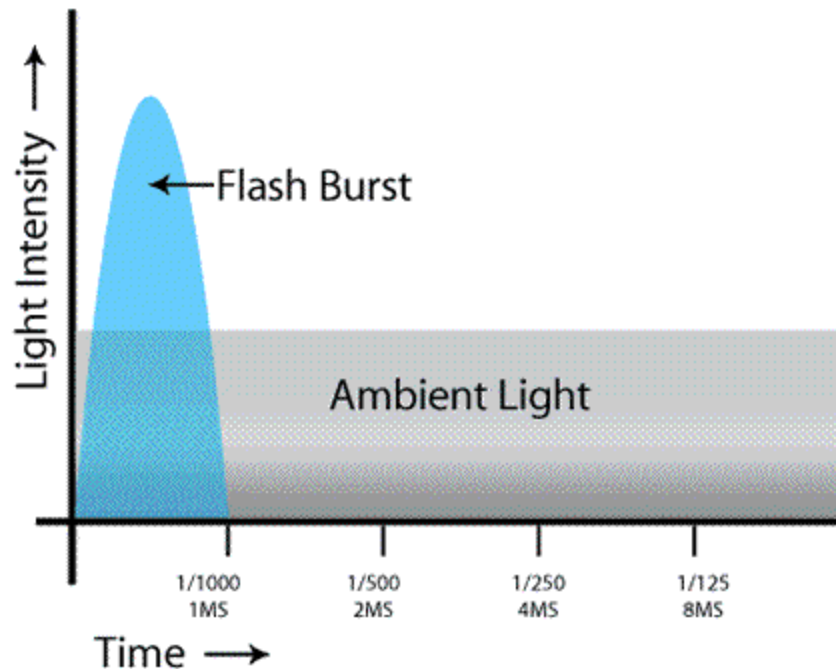
This images was shot with my Canon point-and-shoot and allowed me to use a shutter speed over 500

I would not have been able to get this images with an SLR

Dragging the shutter

Because of the quick duration of flashes, shutter speed becomes irrelevant to the light output of a flash as long as you do not exceed its sync speed.

This means that you can increase the amount of ambient light independently of the flash by using a slower shutter speed.



Putting it all together



Flash gives you more control over your lighting

Flashes allow you to stop action that exceed the physical shutter speeds of your camera.





Flashes are an excellent choice for studio work





Consistent lighting during a shoot



Off camera flash can produce excellent close up photography



Fill flash can dramatically improve outdoor photos.



Off camera flash it is my competitive edge in architectural photography.













Thank you!

