Day 14: Find the Best Light

Light is tremendously important to your pictures, and there are a lot of different types depending on conditions and times of day.

Types of Light

Light is defined by Hardness and Softness:

- Hard lighting - there are defined shadows, usually in the middle of the day
- Soft lighting - more diffuse, less shadows, but also less drama.

Light is also defined by Direction:

- Front lighting - the light hits the front of the subject; you won't see the light.
- Back lighting - light is in back of the subject; light is often in the picture
- Side lighting - light comes from the side; creates shadows that rake across the subject

The best times for photography:

- The best times for shooting outdoors are near dawn and dusk
- These times offer low contrast, softer light, and a more colorful sky.
- Shooting near dawn and dusk is often the #1 thing you can do to improve your photos.

Range of Times Around Sunset and their Effects:

- Golden Hour: Time before sunset when sun's light is warmer and more diffuse.
- Sunset: When the sun dips over the horizon; a great time to capture the sun.
- Civil Twilight: The sky is still quite bright and colorful.
- Nautical Twilight: You can still see the horizon line, but you are starting to see stars.
- Astronomical Twilight: Starting to get dark, includes the "blue hour."
- Night: Starts a little more than an hour after sunset; still a great time for photography.

Limits of Light - Dynamic range

Dynamic range is the range of tones between pure black and pure white that your camera can capture and display.

- The range your camera can capture is rather limited (much more so than your eyesight).
- If tones are outside the range, they will be pure white or pure black with no detail.

You can deal with that later in Lightroom or Photoshop, but while you are in the field, if you recognize a problem, use the bracketing function on your camera.

Additional Commentary

Yesterday we covered locations - or where to go for great pictures. But knowing *where* to go is only half the battle. You also need to know *when* to go there to get the best light.

Sunrise and Sunset

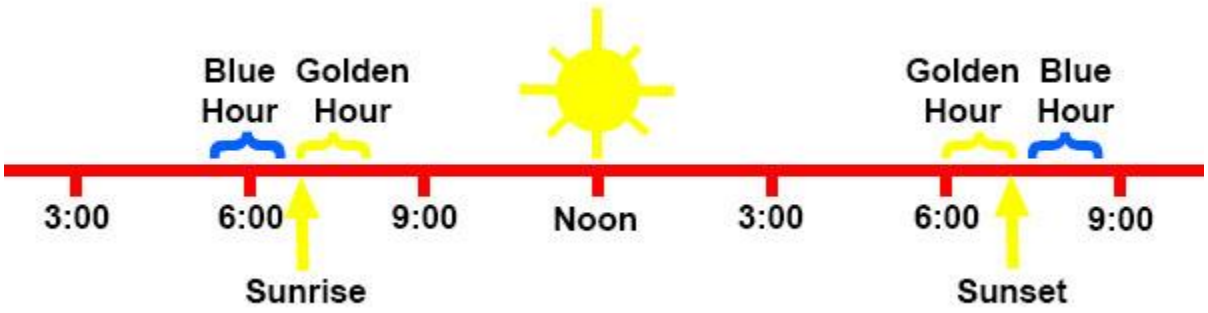
If you are not already doing so, the most important change you can make to your photography is to begin taking your pictures at sunrise and sunset. Seriously, this one change can take your pictures from being scored as 3s and 4s to being 7s and 8s. It is hugely important. Here are the primary reasons for this:

- **It cuts down on harsh contrasts** – During the day when the sun is directly overhead, there are harsh shadows. These shadows always look terrible in photographs. If you are photographing a person, having half their face in shadow ruins the picture. In landscapes, a shadow means you have a big black spot in your picture. There is no way to avoid all shadows. There are shadows cast by plants, trees, and even grass.

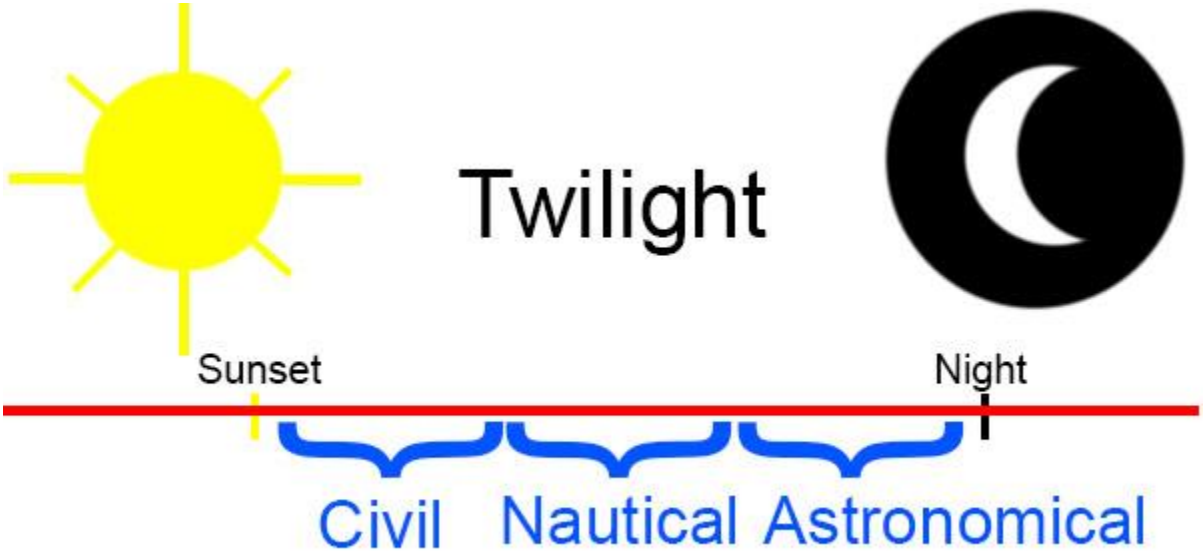
- **Skies look better** – There is a reason people sit outside and watch sunrises and sunsets. That is the most interesting time of the day for the sky. Nobody sits outside and watches the sun pass high noon.

- **It avoids a dynamic range problem** – There is an inherent problem in all cameras you will learn about later called a *dynamic range* problem. Basically, that means that the camera cannot handle very bright tones and very dark tones in the same picture. Well, when you photograph in the middle of the day, you are teeing up your camera for a big dynamic range problem.

It is not just exactly sunrise and sunset that are good to shoot, but the times within about an hour of sunrise and sunset. As the sun gets low on the horizon, its rays have to come through more of the earth's atmosphere to reach you, so they become more diffused. This is a good time to shoot called the "golden hour" (it isn't really an hour, it is just called that). After that you have the actual sunset, which is obviously good. But the fun doesn't end then. The 45 minutes or so after sunset, called twilight, will often lead to the best pictures. The sun's rays are still lighting the sky, often with great colors. As the sky gets darker, this leads to a time called the "blue hour" when the sky takes on a bluish tinge.



The same thing takes place at sunrise, but in reverse. I know it isn't convenient to get up before the sun rises to go take pictures. It is painful to get up that early, particularly in the summer in northern latitudes where the sun comes up ridiculously early. But if you want to take great pictures, that is how to do it.



Photography in the Middle of the Day

Sometimes you are stuck photographing in the middle of the day. It just cannot be helped at times. Rather than give up and just put your camera away, you might as well at least try to get some good photographs. When that happens, there are some things you can do to mitigate the inevitable problems. Here are my best tips for taking photos in the middle of the day:

Idea No. 1: Use a Polarizer

If you are going to include the sky in your picture, use a polarizing filter. This filter makes skies look bluer, and it actually works best in the middle of the day. If you twist it to its maximum setting it will make the sky appear a deep, rich blue.

With Polarizer

Without Polarizer

Idea No. 2: Use Fill Flash

One of the best uses of your flash is in the middle of the day. This might sound odd to you since there is already plenty of light. But when you use the flash in the middle of the day, it fills in the harsh shadows. Remember to power down and/or diffuse your flash as well. It is not as important to get the flash off camera in this situation though, since you are not trying to work with light and shadow. Rather you are just trying to fill in shadows. You can usually leave your flash on your camera, which makes things a bit simpler.

Idea No. 3: Use Lightroom

As you will learn later in the course, you can use Lightroom to mitigate the problems that midday photography causes. There is a basic Lightroom editing move that we are going to cover later, but a sneak preview of it is that you simply reduce the brightest parts of your picture (dragging the Highlights slider to the left) and increase brightness of the darkest parts of the picture (push the Shadows slider to the right). That simple move will often lead to dramatic improvements in your pictures.

Original RAW photo

After Quick Lightroom Edit

Idea No. 4: Convert to Black and White

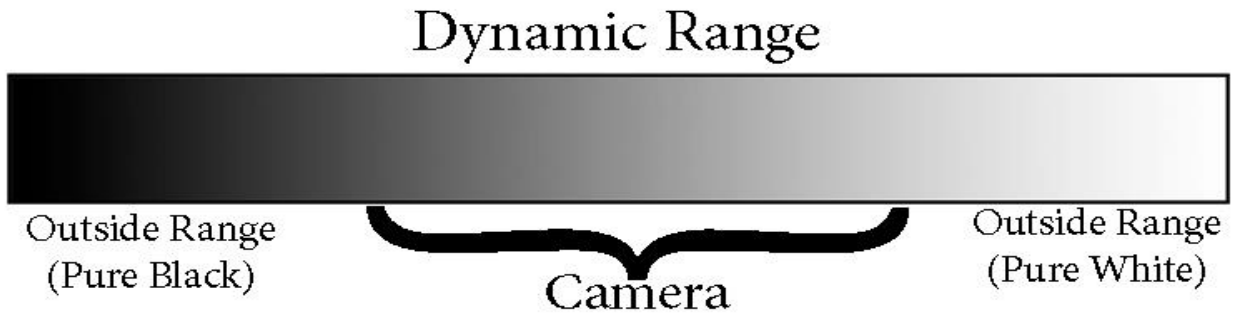
The next time you see an old outdoor photograph taken by an old master of photography, see if you can tell what time of day it was taken. I'll bet you that you find that it was taken in the middle of the day. Follow their lead and try converting your mid-day photos to black and white.

Dynamic Range

Although your camera is capable of capturing virtually any tone that we can see, it cannot capture them all at the same time. The phenomena is referred to as "dynamic range" and it is often a problem we need to deal with in our photography.

If any tones in your picture are brighter than what is in the dynamic range of the shot you set up, they will be "blown out" and appear as pure white. There will be no detail in this part of your picture. On the other hand, if any tones in your picture are darker than what is in the shot you have set up, they will be pure black and include no detail.

Of course. you will set up your shot so that you include as many tones as possible within the range of the camera, but you cannot always fix it that way. In fact, you might have tones in your image that are both too dark and too bright. What do you do then?



One answer is to bracket your shot. You can do this manually by taking the exact same picture three times: one time at the normal exposure level you set up; a second time with the picture underexposed; and a third shot overexposed. The reason for doing that is that the underexposed shot will pick up all those very bright tones. Meanwhile the overexposed shot will pick up all the dark tones. You can blend them together later, or it might be that you just like one of them better.

Day 14 Assignment

The Twilight Shot

Description:

Photograph in one location - from sunset until full darkness. Photograph all through the various phases of twilight.

Keys to Success:

- Pay attention to the changing conditions; not just the *quantity* of light, but the *quality* of light.
    - Pay attention to colors
    - Watch what it does to the mood of your pictures.
    - When does the sky look the best?

- Plan your exposure settings for the increasing levels of darkness. What will you do? Lengthen your shutter speed? Make the aperture larger? Increase the ISO? Remember they all have potential downsides.

Upon Completion of this Assignment:

This assignment will give you increased familiarity with the changes in light during the time of day when (a) the light is the most interesting, and (b) the light is changing the most. Next time you are doing a sunrise or sunset shot, you'll be ready to add these additional phases to your photo session.