

# Photography

## Day One

Today, I went with my brother Evan into Bath to shadow him as he took photos. He explained to me that he enjoys taking pictures with high contrast; the brightest part is much brighter than the darkest part. As such, dusk is his favorite time for photography. As we walked, he talked me through the process he went through when taking each photo.

### **Rule of thirds**

Don't put your subject in the exact center of the frame. Put it either in the left/right third, or top/bottom third. This is more appealing.

### **Wide lens**

Sometimes you can be hindered by the width of your lens. If you want to take a photo of things far apart, a thinner lens might hinder this. However, thinner lenses are also better for close-ups.

### **Aperture**

Aperture is the amount of light being let in as determined by the width of the hole which lets in light. A bigger hole = smaller aperture, and a smaller hole = bigger aperture.

Aperture affects the depth of field - this is the isolation of the subject in comparison to the background - essentially the level of blurriness of items in the background. A smaller aperture (more light) leads to a shallower depth of field and vice versa.

## Day Two

### **Aperture**

On the camera, the aperture is seen as  $f/(a \text{ number})$ . For instance  $f/5.6$ . The higher the number, the greater the aperture, the larger the depth of field, and the brighter the photo.

At it's lowest, the aperture hole is getting smaller and smaller, letting in less light. When the aperture is higher, the hole is almost completely open, letting in a lot of light. When the aperture is greater, you might have to make the shutter speed shorter in order to not overexpose the photo, and vice versa.

### **Shutter Speed**

This is how long the shutter is open for when taking the photo. It effects two things:

The brightness; a higher shutter speed lets in less light, and vice versa

The blurriness; a higher shutter speed means that the image will be very clear, while with a lower shutter speed your hands (or the subject) could move, causing blur.

## **ISO**

Higher the number, the brighter the picture. It allows you to take pictures in darker places.

However, high ISO introduces a lot of “noise”. This means that the image is kind of dirty, with poor coloring, and a little blurry. This isn’t a major problem until the ISO is at 1500 or so.

The normal range for taking pictures in the daytime outside, the ISO should be as low as possible.

## **Exposure**

Exposure is how much light is allowed into the photo. It is a function of the aperture (how wide the lens opens) and the shutter speed (for how long the lens is opened).

To get a correct exposure, you can either manually set the aperture or shutter speed. Then, using the camera’s light meter, adjust the one that you have not set until the meter reads “0.” Closer to the + means it is overexposed, while closer to the - means it is underexposed.

Using the camera’s light meter is not always accurate because the camera is not at the place where the subject is. As such, the light is falling differently on the subject than the light coming into the camera. For this reason, professional photographers usually use a light meter that they place close to the subject. They get the reading from this instead of the camera. Additionally, there is personal preference and style involved. You may not want a mechanically correct exposure every time.

When the photo is overexposed, the parts of it that are so bright that there is no detail. Those pixels are basically blank. Sometimes, you may want the background to be exposed to this level, as long as the subject is still exposed correctly.

## **Dynamic Range**

Dynamic range is the contrast between light and dark. More expensive cameras can handle more contrast as they have more advanced sensors. A photo with a cheaper camera may have parts that are overexposed/underexposed, while a better camera will capture them just fine.

## **Regular Settings**

Normally, she puts her aperture at 2.5 and shutter speed at 125. Then, she adjusts the ISO in order to get the correct exposure.

## **Day Three**

Today, we focused on creatively correct exposures. For any one subject, there are around 6 “correct” exposure settings - ISO, aperture, and shutter speed combinations that let in

the appropriate amount of light. However, usually just one of these is creatively correct. Creatively correct exposures are subjective, although usually most would agree they look the best. Some examples could be:

Having a longer shutter speed, but smaller aperture, to capture motion (ferris wheels at night, cars, etc.)

Having a shorter shutter speed, but larger aperture, to capture detail (sports photography, waves).

Having a wider aperture to blur the background so that the subject is isolated in the frame (portraits)

Having a smaller aperture to show multiple parts of the scene in sharp focus (panoramas, landscapes, fields, etc.)

I completed an exercise in which I used 6 different “correct” exposures to photograph as singular subject. After this, I determined which exposure settings were “creatively correct” for that instance.

#### Day 4

Today, we went outside to practice shooting “storytelling” photos. A storytelling photo is one in which the foreground, midground, and background are all in focus and have a good amount of detail. To do this, you must turn the aperture as high as it can go. Usually, this would correspond with reducing the shutter speed so that the photo gets enough light, but because today was so bright we could still keep it pretty high. Next, focus about a third of the way up the frame (this will give you the maximum depth of field without everything being out of focus).

While taking photos, I had to adjust because of the light. My first few snaps were much too light, even though the camera’s light meter was saying they were correct. Once I had adjusted for this, I did get a few good shots. I tried to get closer to the foreground subject, as is advised in the book. However, it is important to note that if you get too close, the camera will not be able to focus on the foreground and background, no matter the aperture.

#### Day 5

Today was mostly just practicing what I’ve learned so far. I focused on three types of photos: storytelling (all of the frame in focus/sharp detail), average (standard focus, middling aperture), and isolation (low aperture that has only the subject in focus). In addition, I tried close-ups for the first time today.

An important thing that I learned is that there is a plane of focus. Even if the focus is only on one point in the plane, and the aperture is low, the whole plane will be in pretty good detail. This is important to note when taking close ups - you might think that a high aperture is needed to get anything in focus at such close range, but if the subject is flat (a sign, the rings of a log, etc.), a small aperture can still be used. The same applies when using a small f-stop and standing far back from the subject - there will still be a pretty good sized area of focus despite the wide lens opening.

## Day 6

Today, I focused on finding creative angles to photograph from, as well as continuing to experiment with depth of field. I discovered that I really enjoy taking pictures from ground level up - following the trunk of a tree to the sky, shooting through blades of grass, etc. The closer you can get to the foreground, the more stark the depth of field contrast is. I also went back to the graveyard where I had taken photos a couple of days. Now that I knew about the plane of focus, I was able to get a photo I liked. I shot from an angle so that I could get only a couple of letters in focus. In addition, as advised by my mother, I included the whole shape of the stone in the photo. This added intrigue, as you could actually tell what the words represented.

Something which my mother pointed out to me was the blue tinge on most of my photos today. She explained that this has to do with the "temperature" of the light - a lesson for another day.

Overall, I am really happy with how today went. I am beginning to understand when and how to use different apertures to create different effects. I was able to find interesting photo opportunities in seemingly benign places (a line of trash cans), and I really like the way a lot of the pictures I took came out.

Something I want to learn is taking pictures that don't look like the scene I see in real life. So far, I have only been shooting things to look like they actually do. However, I want to learn to use light and other factors in order to affect the exposure in such a way that it is decidedly different from the scene itself.

## Day 7

Today, we went out in the evening while the sun was setting to practice getting shots with the light coming from a smaller angle. This added a really nice effect to the photos - they were much softer, had deeper coloring, and interesting shadows. However, it also messed with the camera's light meter - many of the pictures I tried to take were severely under or over exposed, despite the camera indicating a correct exposure. This, I learned, is as a result of the sun/sky/water being in the frame. All of these bright objects, despite being only a small part of the frame, "cancel out" the dark parts, making the light meter indicate an overexposed photo

when in fact it is not. To combat this, all that can be done is to take a photo, look at it on the camera, and then adjust the settings accordingly.

I made an important discover about the distance of objects. I was trying to shoot a distant bridge, which to the naked eye looked like a perfect subject. However, through the camera lense, it was much to distant - blending in with the rest of the background and making an uninteresting, ambiguous shot. This is because the camera cannot tune out the background at such a distance like the human eye can. The only way to solve this (without finding a closer vantage point) is to use a zoom lens.

Finally, I came to a realization about framing. In the book I am reading, the author is a fan of using foreground objects to frame the background, thus creating a significant depth of field. This is indeed a good strategy. However, it is important to be able to see all (or enough) of the framing object so that you can tell what it is and are intrigued by it. Otherwise, it just looks like part of the frame is blocked by a random "thing."

Personal style note: following lines (coastline, path, side of a house, line of trash cans) is cool! Especially when the light is side-on so that one side of the "line" is illuminated.

## Day 8

Compelling images are:

- of commonplace subject composed in a simple way
- Have a single theme or idea
- Organized without clutter

A beginner's mistake is to overcomplicate or clutter a frame so that there is no real direction to the photo. On the flip side, some might take photos without any theme whatsoever, making them uninteresting. It is best to be creative, yet simple and purposefeul.

The elements of design, of which all good photos include at least one, are:

- line
- shape
- color
- form
- texture
- pattern

In particular, line texture and color are important.

Today, I focused on getting interesting photos using these elements of design. I went around the house, looking for object that were ordinary and trying to make them seem artsy. I was pretty happy with how they came out! The critique I would have for myself is that I had an

aperture that was too wide for most of them, so a good portion is out of focus. In my defense, it was very dark inside so I had to do something to let in more light.

For line, I took pictures of a mantle, the rows of color of a tapestry, and the handle of the oven door.

For color, I did our compost, kitchen towels, and a dream catcher

For texture, I did close ups of a barn-board mantle, a basketball, and the weaving of a tapestry.

For pattern and shape, I did a checkered lamp.

For form, I did splatters of paint on a working surface.

The easiest to find and photograph successfully was line. The most difficult is probably shape and texture. Texture because it is found mostly in close-up situations, which can get old and be hard to photograph interestingly, and shape because it is difficult to decide how to portray a shape (from above, the side, front on, etc.