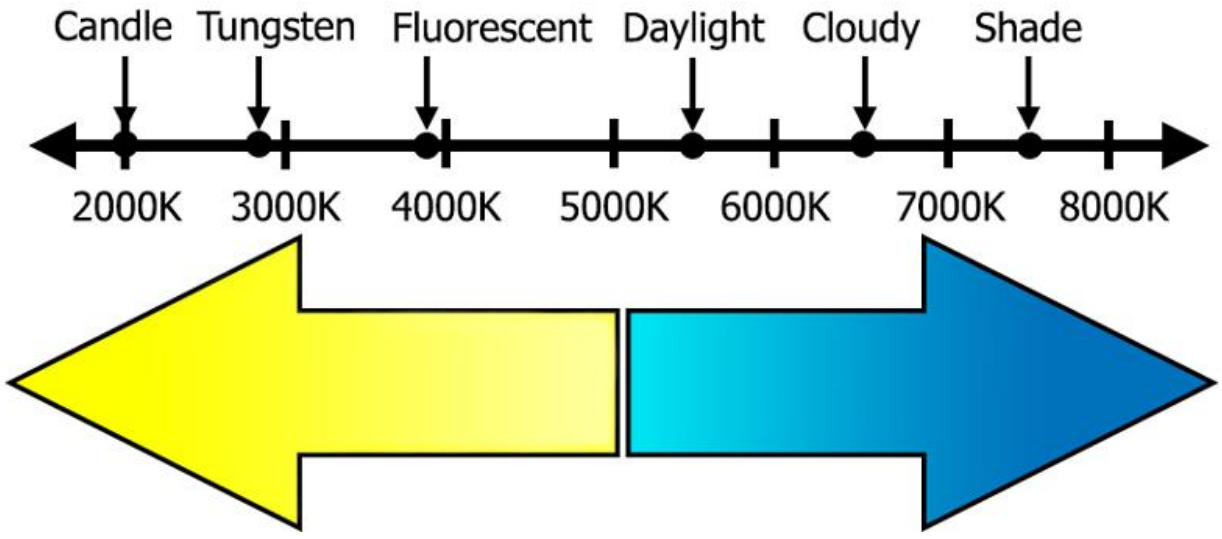
Day 28: Remove Color Casts

In yesterday's lesson, we enhanced color. In today's lesson, we will learn how to *fix* color costs. The tools to do so are simple - for the most part can just use white balance, which is available in any software.

What is White Balance?

When we talk about color casts, we are talking about white balance. What is that? White balance is the color of light.

All light has color. We just don't notice it so much because our eyes adjust to it very quickly. If you think of a candle and the warm glow it emits, you'll understand that some light is warmer or more yellow. Conversely, if you've ever noticed that shaded areas of your pictures look bluer, and you'll recognize the cool side of the spectrum as well. There actually is a scale of white balance values and it looks something like this:



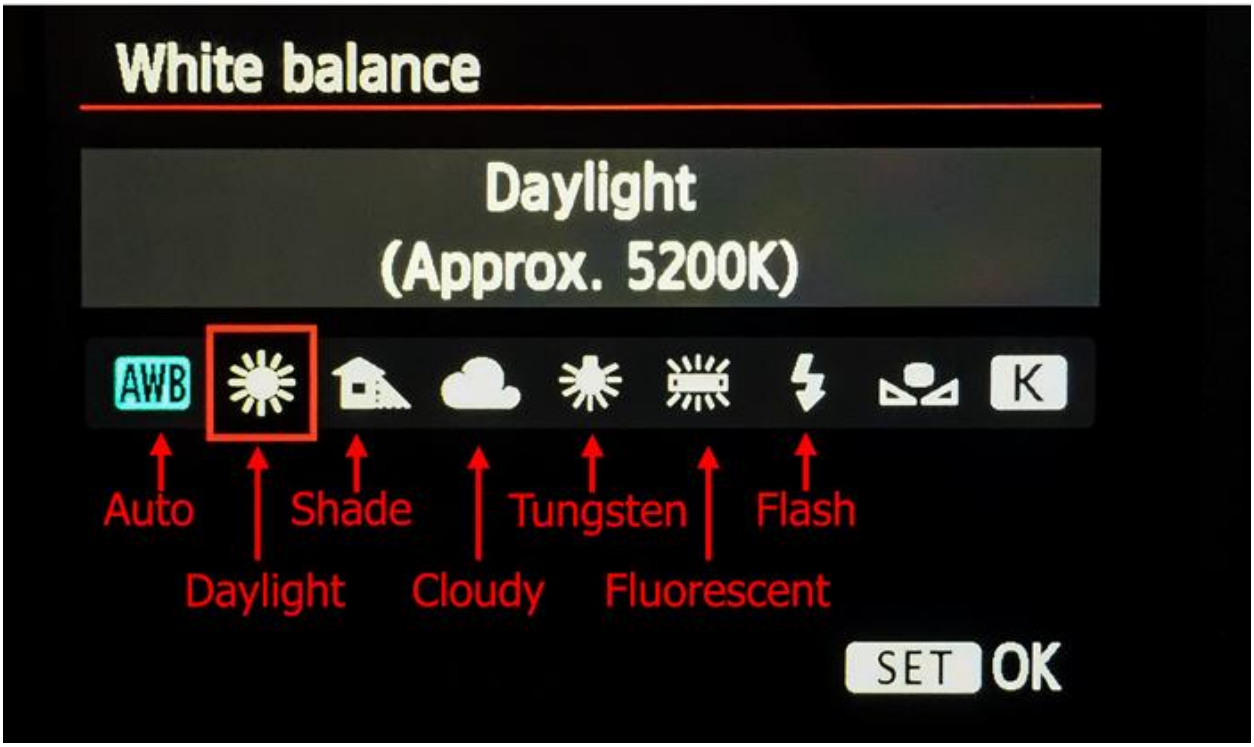
The numbers are measured in Kelvin. You don't need to worry about the numbers though. This is just to show you what we are dealing with.

Your camera will attempt to adjust to the color of the light in your scene. Remember in day 1 when we set up your camera, we set it to Auto white balance. That means your camera is automatically making an adjustment every time you take a picture. It is essentially applying an offsetting move, so that if your scene is full of warm, yellow light, your camera will add some blue to make the scene appear more neutral. Conversely, if the scene is cool and blue, your camera

will add some yellow to even things out. Auto white balance works very well and often is all you need to do to achieve a nice, neutral color balance in your pictures.

If you wanted to, you could set your camera to a predefined white balance. You might do this is you will be taking many shots in the same situation. If you do so, you'll notice that your camera has several presets that look like this:

White Balance Camera Presets



The key is that your camera is applying offsetting moves. If the scene is yellow, the camera will add blue. If the scene is blue, the camera will add yellow.

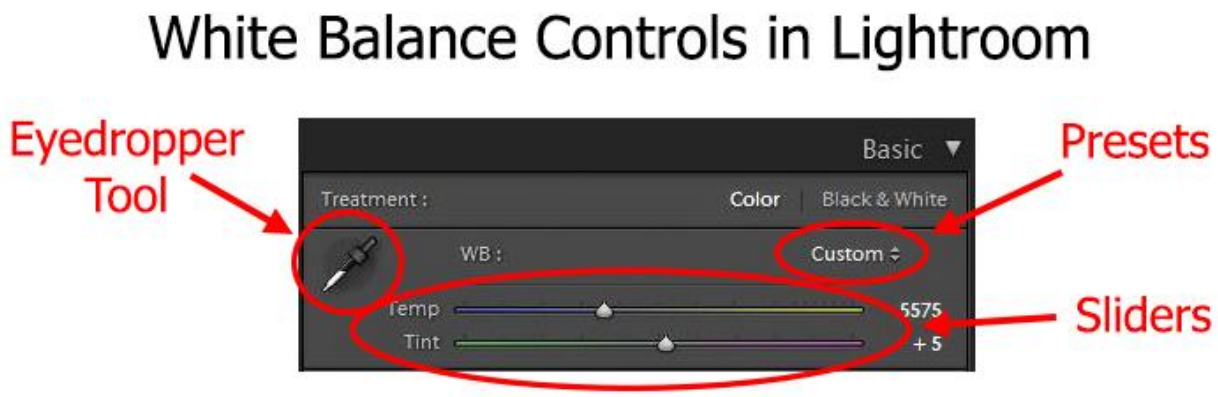
For example, let's consider tungsten for a moment. If we look at the original scale on page 1, we see that tungsten slight is very yellow. When we look at the graphic immediately above, which shows the processing being applied by our camera, it is blue. As mentioned above, that is because your camera is applying an offsetting move to bring it back to neutral.

Let's do the same thing with another color. Check out shade on the scale on page 1. It is on the blue side of the scale (in fact, it is *all the way* to the blue side). When we look at it on the graphic immediately above, shade is yellowish. Again, that demonstrates that our camera is applying offsetting moves to create a neutral color balance.

White the camera will often get it right, you can also fix it in Lightroom. The process will be the same. Where the picture is too blue, you will add yellow, and vice versa. The graphic showing the Eiffel Tower applies whether we are talking about the camera or Lightroom/ACR.

The White Balance Controls

I have mentioned a few times in this course that it is very easy to fix white balance in Lightroom and ACR. Now I will show you how. It all centers around the white balance tools, which are conveniently located at the very top of your Develop module in Lightroom. Here are the controls:



Let's walk through the controls. First you have the two sliders.

- **Temp:** The first one is labeled Temp. It is blue on one side and yellow on the other. It is measured with a number that looks suspiciously like the Kelvin scale. This is what allows you to add a little blue to your warm, yellow pictures and vice versa. It should look familiar based on the discussion and graphics above on the color of light.

- **Tint:** There is also a slider underneath labeled Tint. The slider is green on one side and magenta (red) on the other. This provides an additional level of control for addressing color casts. If your picture has an overall greenish cast, add a little red (and vice versa).

These sliders are the basis of the white balance controls, and we'll come back to them. For now, let's move on to the other two controls. These are tools whereby Lightroom helps you set your white balance.

The first is the Presets dropdown. With this, you select from a number of different presents that might closely match the conditions you had when you took your picture. These presets should look familiar to you based on the discussion and graphics above. They are the same ones that your camera uses. These can be handy on occasion, but honestly I think you will rarely use these, because there is a much better tool, which you'll meet next.

The final tool - and this one is extremely handy - is the white balance selector tool. It looks like a little eyedropper, so that is what I often call it. To use it, just find an area in your picture that is a neutral color and click on it with the eyedropper. Lightroom will use that neutral color to set the white balance for the entire picture. Here are the specific steps for using it:

1. Simply click on the white balance selector (eyedropper).
2. Move your cursor to a neutral color within your picture. I find that white works best, but gray and black work as well.
3. Click on the neutral color.
4. That's it. But if you don’t like how it looks, just find a different spot and click again.

There are a couple of things to keep in mind as you use the white balance selector. First, keep in mind that you can tweak Lightroom's setting by manually moving the Temp and Tint sliders. I often give Lightroom a shot with the eyedropper and then tweak things to my own taste using those sliders. In addition, be aware that if you are ever unhappy with your changes, you can always use the As Shot preset to take you back to where you started (or you could just use the Undo command).

The white balance selector works incredibly well. Often it is all you need. It is one of the reasons I say you can fix color balance with the touch of a button. It can be just that easy.

Finally, don’t worry too much about your white balance. I have talked a lot about getting white balance “right,” but ultimately it is a matter of individual preference. You can get a few opinions from Lightroom (using the eyedropper, presets, and auto setting), and you may want to check all of them, but once you do, set the white balance however looks best to you.

Day 28 Assignment

Fix a Color Cast

Description:

Check the Landmark photos you took in Days 21 and 22 for color casts. Use the tools in Lightroom or ACR to find any color cast and then remove them.

Keys to Success:

- Even if you don't see an issue with colors being off, let Lightroom check for you. First, use the Auto preset to see what Lightroom would do.
- After that, use the White Balance Selector (eyedropper) to test colors by clicking on neutral colors (white, black, grey). Try several areas. This is the most important thing you can do.
- Keep an eye on what Lightroom (or ACR) is doing to the Temp and Tint sliders as you make these changes. Make adjustments to them as needed.
- You can also see color casts by comparing the histograms of the color channels in a Curves Adjustment layer. Flip through them comparing the shape and range of each channel.

Upon Completion of this Assignment:

Even if you don't have "an eye for color" you can use technology to help you out. These tools will find and correct color casts for you.