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Composition Basics – Color Theory & Aperture

In this lesson we will focus on two aspects that are fairly easy to control that will affect the final feel and composition of an image: colors and aperture.

When we work on composition, we constantly want to be thinking about lighting, foreground, background, colors, and more. The only way to learn to think about these things is to practice and learn composition. See our [Composition Basics blog](#) and for more in-depth lessons consider our Text Message class (for \$5 get a lesson each day for a month with composition basics and hands-on practice activities): <https://focused.arist.co/courses/5fefb6b170fffd0ba99b224a>

Color Theory is important in composing an image because your final color choices can promote feelings of joy, sadness, anger, and more. Look at this example. These are images of the same dead dandelion stalk. Do they have the same feel?



No, they don't. The one on the left uses analogous colors and colors that are in the same color family as the dandelion itself, whereas the one on the right uses colors that are complementary (teal and pink) which are in contrast to the light yellow and tan of the dandelion. The one on the right has a happier more upbeat feel despite the dead flower.

And then, what if we compare those to this third version on the right? Its black background gives an entirely different feel to the image. It is higher contrast and more moody feeling. Hopefully you can see that color is an important factor in photography.



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All of those images were taken with the same aperture. So now let's address what changing the aperture can do for our images. (If you don't have a camera or smartphone that allows you to change the aperture, you can still read about what was done in the test shots and see the color/effect comparisons below, then move on to the assignment using color).

Aperture is one of three ways we control the amount of light entering the camera and hitting the sensor. The other two are ISO and shutter speed. Together all three make up the exposure triangle. Aperture has a creative effect that allows us to control the depth of field (which is the amount or depth of focus) in our images. Wide open apertures like $f/2$ create a blurry background behind the subject (as long as the subject is separated from the background). Closed down apertures like $f/22$ create deeper depth of field with more area in focus throughout the image.

If you have not completed the [beginner lesson on Aperture](#), you should consider doing that lesson before you continue with this one.

Using the blur/loss of focus at apertures like $f/2$ and $f/4$ or even $f/5.6$ can affect the overall mood or feel of an image. Apertures that provide a blur in the foreground and background (called bokeh) are often used by portrait photographers and flower photographers. One of the rules of composition is that you do not want anything in the image to distract from the subject. The soft blur behind the subjects draws the eyes to the subject and reduces distractions. At very small apertures the depth of field can be so small that all of the subject isn't even in focus! This gives images a dreamy feel.



In the chart on the next page, I have images of the same plant (a weed from my backyard in the mid of winter). I brought it inside and stood it upright. I used an old first generation Canon Rebel that shoots only about 6 megapixels with an 18-55mm kit lens zoomed as close as I could get it. I did not use the flash or any room lights or studio lights. The only light was from the windows in the room. I used

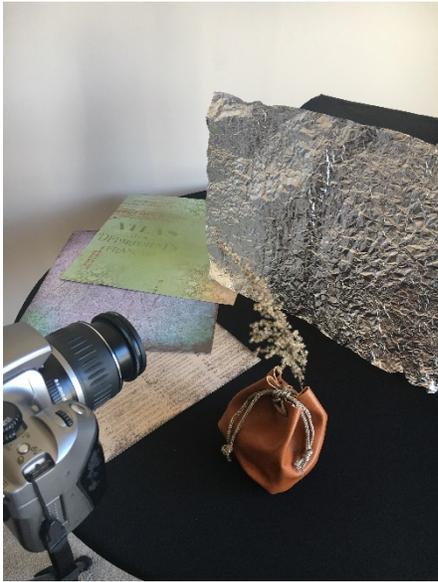
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Aperture Priority mode and let the camera choose the ISO and shutter speed. The camera chose a longer shutter speed to let in enough light, but because I was on a tripod and the subject didn't move that worked out okay. I used 4 different backgrounds. With each background I changed the aperture from f/5.6 (widest aperture my lens could go) to f/16 (mid-range aperture) and finally to f/36 (smallest aperture my lens can go). In post-production I made a few minor edits and cropped them all to the same size/position. By comparing these images you can see how just manipulating two aspects – color and aperture – can make a dramatic difference in the images.

	f/5.6 (widest open makes most bokeh)	f/16 (mid-range)	f/36 (most closed makes least bokeh)
Purple background, in editing I increased the saturation of the blue/purples just a little bit			
Yellow-green background, in editing I increased the saturation of the yellows/greens just a little bit			
Monochrome - Tan/brown in the same shades as the weed itself, in editing I added a slight vignette			
Silver Tin Foil background (crinkled then flattened), in editing all colors desaturated to create B&W			

Keep in mind that I did not use a fancy studio and I did not take the time to make a beautiful arrangement of the subject. These are not meant to hang on the wall or publish in a coffee table book. But what they do demonstrate is that to get better at photography you **must think about composition** – all aspects of it.

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Here was my setup for the photos above.

The table has a black table cloth, but for these images that is irrelevant. My backgrounds were held in place by a cardboard box. The backgrounds were tin foil and three different sheets of colored scrapbook paper. The weed is being held in place by a drawstring bag, but I could have just as easily used a glass or taped the stem to the side of another box that would be below the camera view. I did use a tripod. If you don't have a tripod you can always set the camera up on sturdy books.

Now for your assignment!

You can complete this assignment indoors or outdoors.

Find a small subject that does not move. Set up your subject, camera/lens/tripod similar to how I have mine set up. Your lens/camera may be able to be closer or may need to be moved farther away depending on the lens' minimum focus distance. Most kit lenses will let you set up about 1 foot away. If your subject is bigger than mine – then you will need to move back to get it all in the frame.

Take several shots of your subject with different backgrounds. Make sure the background is also set up at a distance from the subject – the farther away the background is the more blur you will achieve. On my tiny table with those small sheets of paper I could not move the background much farther than 1 foot behind the subject. Notice how in my images at the most closed aperture (f/36) you can see what the background is made of (paper, foil, words, etc.), but at the most open aperture (f/5.6) you cannot tell what the background is made of. This means that at f/5.6 you can use practically anything for a background – clothing, towels, a stack of books, a tile wall (like in a shower), or a row of bushes outside. When shooting outside the only way to change the background in some cases is to move your position (up, down, left, right, or move around the object like you are going around a clock 3 o'clock then 6 o'clock, etc.).

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Here's an example of a flower outside at a botanical garden. I moved just slightly. Notice how the background is actually much different.



In the one on the left, I was a little farther away and lower. My background caught some tan colors and a bright white spot that I thought was distracting. So I moved a bit closer and up above just slightly. That made the background the nicer purple and green tones you see in the image on the right.

Practice taking shots with different backgrounds and from different angles to find pleasing color combinations. There are probably colors that you prefer – favorite colors – try playing around with those colors!

Then repeat the process and take shots using different apertures. In some cases you might like the full blur feeling and in other cases more focus might look better. In my examples, I prefer the most blurred version of the tin foil background, but the least blurred version of the monochrome tan one!

Experimentation and practice will help you continue to improve your photography. Think and plan your compositions and you will start to see a dramatic difference in the images you produce! Good luck!