

PROFESSIONAL PHOTOGRAPHY TECHNIQUES

by Dave Johnson



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INTRODUCTION

Colorado is full of beautiful scenery, and there is a large amount of people who enjoy taking photos of it. A lot of these photographers are professionals, but some may be people who have a nice camera who don't know how to use it without it being on auto. This publication intends to help those who are looking to take their photography hobby to the next level, or even learn about the ways that I like to edit my photos to get the best looking landscapes I can get.

In part 1 we will go over techniques used in the field, including how to setup your camera to the right settings for editing them digitally, and how to get different effects in your backgrounds while shooting. The perfect times of day and lighting will also be discussed, along with how you can get the best angles and shots with the use of a tripod.

Moving on to section 2, the editing process will be looked at in Lightroom Classic so that we can see how you can make your photos look fantastic, and export them out in different quality levels. We will also discuss how to make your photos black and white, and how to get rid of those nasty grain marks you may get from having your ISO set high. Get ready for an adventure in making your passion come to life!

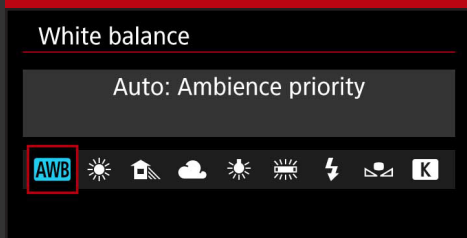
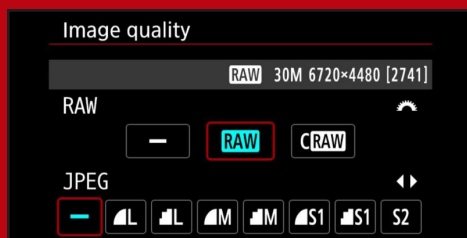
PART 1: SHOOTING IN THE FIELD



Shooting photos outside in the open air is an amazing feeling, but being unprepared is not. Let's explore how you can setup your camera to take shots that will amaze others, as well as how to make sure it captures the best files for you to edit with in Part 2!

SETTING UP YOUR CAMERA

If you've just bought a new camera, or want to change your settings with the intentions of editing later, the first thing you will need is memory cards (and backups). Many times, the default setting on a camera is for it to save as a jpg file, which makes it easier for someone to transfer it straight onto their computer and share it instantly. The problem with shooting this way is that your photos don't retain all the data they should, and they are harder to work with in the editing process. The file type you want to set your camera to is in options, and will be called a RAW format. I shoot with a Canon EOS 6D Mark II, and your interface may be different, but I will be using their interface throughout this teaching. With this changed over, you can now capture images that will give you much better options in the editing process. Make sure you have formatted the memory card in the options after you have selected this.



Another option is the White Balance. Since you will be editing in Lightroom, keeping this on auto is best as you can change these options manually in Lightroom later.

SHOOTING IN A NEUTRAL PICTURE STYLE

Every camera is a little different in their settings, but finding the “Picture Style” option should be fairly easy. Once in it, you will find plenty of options, including auto (never recommended), Standard, Portrait, Landscape, Monochrome, and other options. My favorite of this bunch is Neutral.



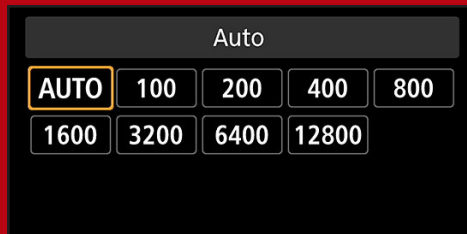
With Neutral, you can capture all the natural colors around you in a subdued fashion, which you can bring out later while editing. Monochrome is popular too.

This allows you to have more complete control over the colors you want, and don't want. It's harder to subdue colors once you've taken an image in landscape or standard, while you get those metal like hues with monochrome. You see this often with photographers who like to make everything have brownish hues and keep colors less bright.

My personal preferences are to make the colors come to life and feel almost surreal, and this has helped my photos stand out from others who might take photos of the same iconic landmarks we all enjoy in Colorado. Achieving this in the editing process will be discussed in greater detail later.

ISO SETTINGS

ISO refers to a camera's internal sensor and its sensitivity to light. The lower the ISO, the less sensitive it is to light. This means if it is at an ISO of 100, it would need a large amount of light, or a longer shutter speed to capture the amount of light necessary for the exposure. At a greater ISO like 1600 or 3200, you will need less light to get an exposure, but those are typically used for night photography, which we will discuss later.



One of the issues with a higher ISO is that your images will become grainy and lose their quality. Some of this can be remedied in editing. Lower ISOs also tend to help with capturing times like sunset or sunrise better, as they are less sensitive to the light and therefore bring more of it in if you have a long shutter speed and tripod.

The sensitivity of your image sensor plays a big part in how clear your photos will turn out. The photos below were shot at an ISO of 1600. Notice how much grain is in the original to the left, and how editing can clean a lot of that up.



LENS SETTINGS AND FILTERS

The type of lens you purchase also plays a big part in what kind of images you'll be capturing. Knowing how to use it manually will lead to better results than simply putting it on



auto zoom all the time. Some types of lenses have zoom features like my main go-to, a 24-105mm f/4 L IS USM II.

The F part stands for how large the aperture can open,

which is also called a "F Stop" by professionals. 24-105mm stands for how far it can zoom in and out giving it solid range.

Most lenses now have stabilizer features that are great when you are manually shooting by hand, but can be turned off when taking photos on a tripod. They all include a manual or auto focus option as well, and while I may use auto focus at times, learning how to focus your lens by hand will lead to some superb shots that you can be delighted in knowing you grabbed with your own eye. They usually have a locking device as well so that you can lock your focal length in.



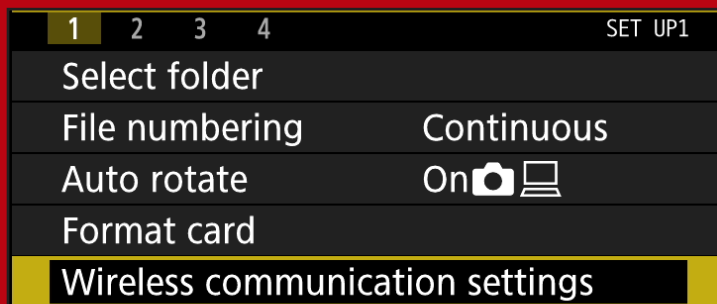
CONTINUOUS SHOOTING AND OPTIONS

Another great option on cameras is continuous shooting. I tend to use this much more than the single shot option. While you can take just one photo at a time, shooting multiple shots of the same one enables you to “stack” your images, and better pick out photos that look best in your editing process. I’ll discuss how to stack with a tripod shortly.



This option has several settings with high speed continuous shooting if you’re in a field with no one around, or silent continuous shooting if you are around others or don’t want to disturb the wildlife. One of my other shutter setting favorites is the 2 second delay. I often go out with my son and have no one else to take a photo of us, so this enables me to use a remote control I carry in my camera bag.

Some other features may include the meter controls of the brightness, WiFi for connection to a phone, and the way your camera focuses through the peephole. Most digital interfaces also show you ISO, Aperture, and Shutter Speed settings too.



APERTURE AND SHUTTER SPEED

Two important features of learning how to shoot like a professional are to learn how to use your aperture and shutter speeds settings. Your aperture is what allows light into the camera, and can be opened up very wide to allow more light in, or closed to a little pinhole so that it takes more light to get your shot. An interesting fact about apertures is that the numbers work backwards on them.



Something that has a higher number value is typically larger, but the lower the number on the aperture, the wider out it opens, letting in more sunlight. This allows the camera to gather light faster, enabling you to have a faster shutter speed for your exposure. In the examples shown below, you can see how the left image has a blurry background. This is because the aperture is at a 4 (wide open on my lens) with a faster shutter speed. This means the sensor has less time to gather the information behind the object that is directly in front of it, and gives a really nice effect when doing close ups and zoomed in shots of individuals and families.



On the other hand, the image on the right is from an aperture setting of 22. This means that it has better precision in gathering the depth of field in front of it, but needs a longer shutter speed. This particular one has a shutter speed of $1/4$ of a second, which is a very long time considering that faster shutter speeds can be up to $1/4000$ th of a second. It's really



hard to capture any kind of moving objects below $1/50$ th of a second too. This is great when shooting water too, as you can get nice flowing streams with a high F stop, and capture bouncing water with a low one. You can see how the fountains behind him on the right look misty.

Setting your camera to manual is a great way to play with both your shutter speed and aperture, but can take some time to set up in a crunch. My preferred method of shooting is on the aperture setting itself. When I select my aperture on this setting, it automatically sets my shutter speed for me. I can then hit a roller to adjust shutter speeds slightly too. Finally, a middle F stop with a middle shutter speed will give you nice middle ground depth and splashing water with streams you get from higher F stops. It is always recommended to try and get the same shot from at least three different combinations of aperture and shutter speed.



SHOOTING OUTDOORS



Shooting outdoors can be tricky at times. The weather does its own thing any given day, so planning times to go out and shoot is a balancing act watching for the right windows. The fires in Colorado during 2020 did not help the situation at times either, as you can see from the haze above. We'll discuss the times of day and lighting more here in a moment, but we must also discuss a little geography and how it can affect your shooting plans.

Animals can be beautiful to watch, but terrifying to experience. Before going out it is always a good idea to have some form of security on you to protect yourself, as well as carrying along a small bag with some essentials like food, water, and lenses. Purchasing a camera bag that can carry all of the above along with your camera is a great way to ensure your health and safety while outdoors. Make sure to bring along your hiking boots too, you're going to need them.

TIMES OF DAY AND LIGHTING

Lighting is everything when shooting outdoors, and different times of days will give you different effects. If it's noontime, the sun is going to be directly above you and it's going to be hard to get it to shine right in the face or cast those brilliant shadows you're looking for. The sky also paints itself every morning and evening, so the "golden hour" is the best time of day to get those purple, red, and gold hues across landscapes and when shooting family and professional portraits.



Sunrise is always great for landscape photos. There's usually not a lot of people around, and there's a different aura about sunrises than sunsets when the sun starts to peek through the horizon and hit your targets. It's a great time for reflections. Sunsets are perfect for any kind of photos, but especially getting those golden browns glimmering over everything. This photo above was taken at sunset in St. Augustine, Florida. The sun painting the water was mesmerizing.

SHADOWS AND ANGLES

Knowing the best times of day for light also gives you an advantage for shadow work. Shooting towards the sunset with figures in front of it gives you brilliant silhouettes that can later be further emphasized in the editing process. Using natural objects like the trees or larger buildings can also help give you shadows along areas you don't want light to show. The example below is a play on the shadows coming through the pillars and the sun setting to give it nice crisp lighting.



Trying to get shots from angles will also help set apart your photos from other photographers. While dead on shots happen a lot in headshots, the background behind them should appear to run off in other directions and make them appear to be larger than life with epic scenery.

TRIPOD ADVANTAGES

This leads us to the use of tripods. While out visiting certain tourist areas, a tripod may not work, but it does work well when doing landscape photography, family portraits, and is the only way you can capture images at night stargazing.

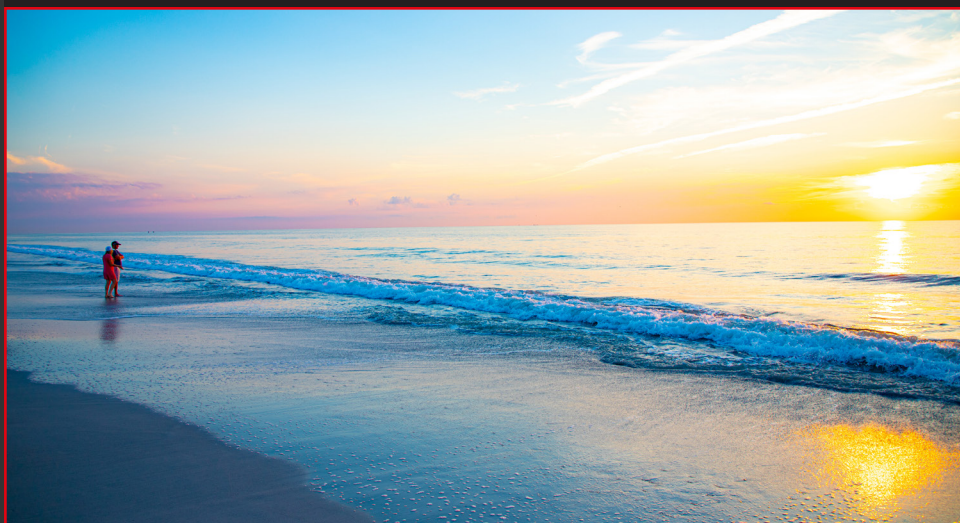
A huge advantage to using a tripod is that you can get your angles set before you take a photo, and you will get the same photo over and over from the same exact spot. This enables you to do what is know as stacking. As we know that different aperture settings give us a different perspective and depth of field behind objects, having a tripod is the perfect way to get the same shot with differences in how clear the background comes out. This includes the water discussion and taking photos of waterfalls or fountains from the same spot, but with different effects of splashing and “dreamy” looking streams. The photos below were taken for an engagement shoot, and you can see the difference a tripod makes in stacking images, but capturing the same shots.



CHOOSING THE RIGHT LENS

There are many options out there in the lens world, and having different ones in your bag will lead to having better opportunities at producing amazing content. My go-to lens can zoom from a fairly wide angle setting, to a zoomed in look that is wonderful for portraits. In fact being at a 50-80mm range for headshots will give you very crisp lines around faces with the background thrown out if you are at a lower F stop. The photo below is at a 24mm wide angle.

For nature watching, a 200+mm lens is recommended. Most nature watchers have an assortment of long lenses, or some that can go from a 200mm-400mm for instance. These enable you to stay far away from animals that could be dangerous, or allow you to capture eagles and hawks high above in trees that a lens with a wide angle couldn't give you. Having options for different places you are shooting will enable you to further your skills and capture different kinds of scenery.



SHOOTING AT NIGHT

Shooting at night can be rough. To collect the amount of light you need without using a flash, you need to set your ISO settings higher. Higher means grainier photos, and you typically don't want to go over 3200 if you can help it. It is possible in Lightroom to take some of that grain you get out, so this setting will give you the right amount of light and grain without making your photos looked smoothed out when you eliminate the grain later. I will discuss that shortly.



It is also very difficult to capture moving objects at night unless you have an F/2.8 or 1.4. These are the newest levels of aperture settings for lenses in 2020. It is possible to stay around a 1/60th or 1/50th of a second shutter speed and still get away with slight movement, but if it's rapid you may need to manually make your shutter speed faster, gathering less light for your exposure.. While it is possible to make the exposure level higher in Lightroom at such a high ISO you will definitely get more grain in your photos.

Stargazing is amazing, but you need clear skies and to be out away from the city, with little light pollution from city lights. An ISO of 1600 with a long shutter speed of a minute or more and your aperture wide open will get you nice shots.

PART 2: EDITING IN LIGHTROOM



Once you've been out and gathered all those amazing shoots from your trip, it's time to go edit them in Lightroom. More specifically I use Lightroom Classic, which enables me to keep a catalog of every single shoot I've taken on my computer. From it, I can put photos from different shoots together easily, manipulate coloring, take out haze and fog, edit exposure levels, and change sizes. It is a vast app and this reading will only cover the basics of it.

INTRODUCTION TO LIGHTROOM CLASSIC

Lightroom Classic CC is professional editing software designed by Adobe. It is offered along with Photoshop CC as a companion for people who are only photographers that may not want other programs too such as Illustrator and InDesign. You can open photos directly from Lightroom to Photoshop for further editing on faces or taking objects out if the tools in Lightroom itself won't do the trick, making them go hand in hand very well.

There are many features in it that help you develop and export your shoots. It also enables you to catalog everything and put it into different categories or star settings, which helps in the selection process and deleting the other files. RAW files tend to take up a lot of space, so having an external hard drive along with your computers is highly recommended. We will be discussing how to import your files in the new section, but the many advantages it brings in not only cataloging your work, but also giving you the ability to sift through it quickly makes Lightroom very unique.

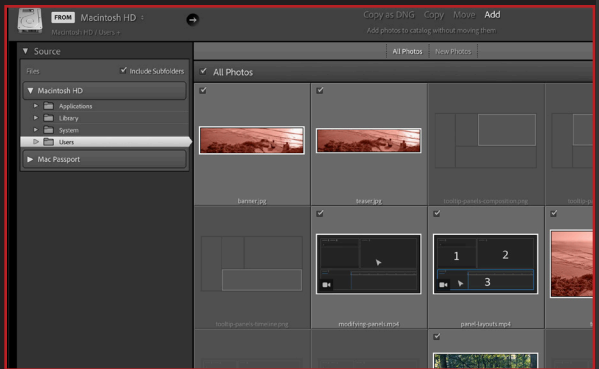


INITIAL SETUP

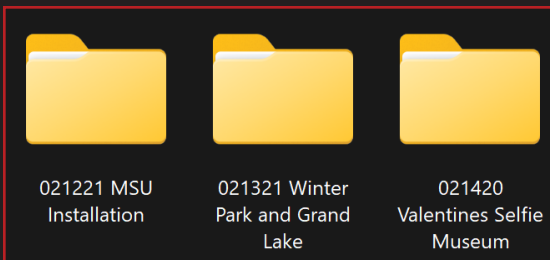
When you first enter Lightroom Classic, the first thing you will need to do is to start a catalog. To do this, go to file and click “new catalog”. In here you can choose where to save the catalog, as well as name it. Once you’ve done this it’s time to import your first files!

Simply go and hit the import button, then select the folder which contains your RAW files. One way to import your files is to directly take it off the memory card, which also

saves it to your computer, but makes it difficult to keep cataloged. The better option is to move all your RAW files into a folder that contains an outline of all your folders.

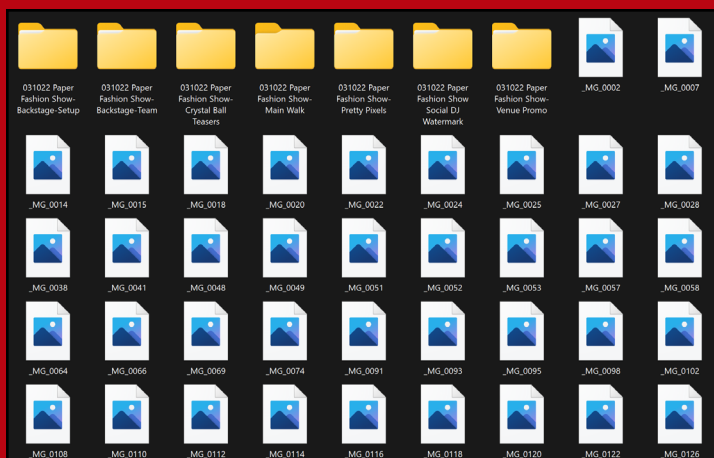


For instance, I label my shoots by date. I will have the date, 021221, with the shoot name next to it, and put my files in there. You can later delete the originals you no longer want.



KEEPING EXPORTS & RAW FILES ORGANIZED

I will also make a blank export folder with the shoot name and “finals” within it to put exports, so all of those are organized to where I can find them easily later. This is also a great place to separate different finals. For instance, this example below from a recent event in 2022 has 7 different folders for finals. These have all been separated out in Lightroom and exported at different sizes along with watermarks on some for social media.



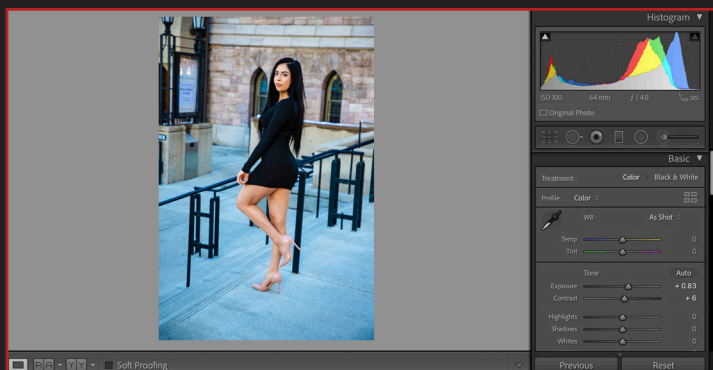
This is very important when working with large clients on events and other functions, as they will likely want to keep the highest print quality versions to use in their advertising, while also giving you recognition for your work on social media channels. Having a package plan for these instances will make your life easier at the end of the day instead of having to look for finals and originals in different folders.

BASICS OF LIBRARY, DEVELOP, AND MAP

The three main settings I use in Lightroom are Library (g), Develop (d), and Maps. I like to use the Library Compare (c) view sometimes as well. Library mode is where you can go through your entire shoot at once, as well as navigate between different shoots you have filed easily. By double clicking on any image, you can enlarge it and quick edit if you want. I almost never use this feature, preferring instead to go straight to develop mode.

In this mode, you can fully customize your photos. Your histogram at the top will read out the different light levels in the photo, and it will tell you if you are under or over exposed by looking at it. The interface has many features to fix the exposure, contrast, give it more clarity, and pop the colors or dim them. It's also a great place to turn your photos to black and white and see the differences side by side with the colored version. I will discuss it further in pages ahead.

Map is nice at times because it keeps a record of where you took your shots at. You can further use this information to tag locations you've been when uploading them to social media.



EXPORT OPTIONS

To export you need to be in the Library mode. On the top of the options choose export to specific folder, then choose the folder that you made inside your folder containing the RAW files. If you choose to rename the files, you can in the next section. I prefer not to as it messes up the order sometimes.

Under file settings make sure it says JPEG and that the quality is at 100. sRGB is the standard output coloring, which is what most print establishments will take as well.

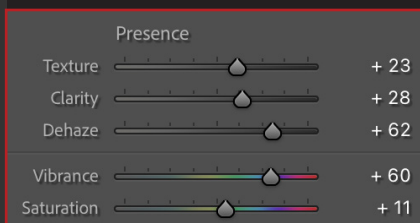
Image sizing is very important. This is the area where you can resize it to fit. You should always check this, and I typically like to resize it to the long edge. That means that the longest edge will be the measurement you give it. 14 inches at 300 pixels per inch is usually adequate unless you plan on getting large posters printed. But this also enables you to get the best quality images you can on the output from RAW files, rather than shooting those straight from your camera.

Under Metadata, you can include the options like location and keywords that will be embedded in your jpg file that wouldn't have shooting it straight to that type of file. You can also place watermarks on it, which help with copyright infringement and marking up multiple photos at once.

DEVELOP MODE INTERFACE



Shooting in neutral, your photos will appear like this.



Dehaze helps eliminate smoke and haze, texture and clarity add effect.

Whenever you shoot in a Standard picture style on your camera, you are doing a great disservice to yourself. It's harder to pull out colors you want to keep and put others at bay in the editing process.

Using the Vibrance and Saturation tools, you can pop the colors in your photos much more starting from the dull neutral style. This will allow you to use other editing features in the HSL/Color settings to really pop, and dull the colors in your images.

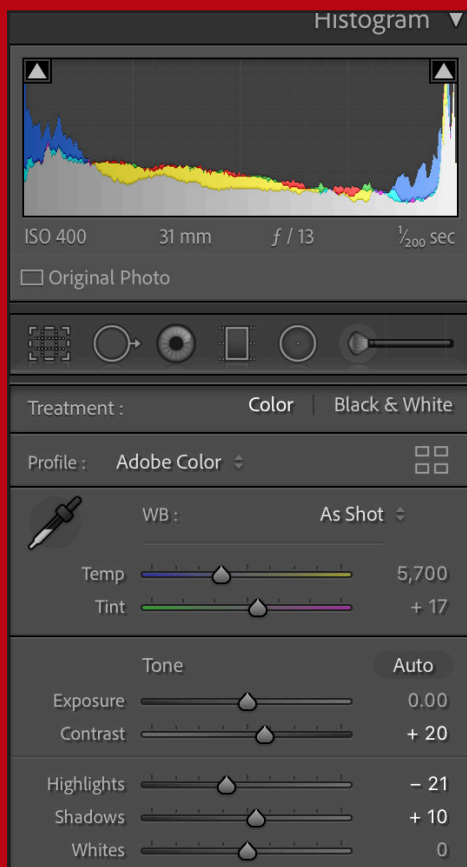


DEVELOP MODE INTERFACE

Taking a closer look at some other key features, you can see the histogram at the top, which shows you the amount of light and shadows in the photo. This area also has data on what your ISO was set at, the aperture setting, shutter speed length, and zoom level of the lens. Below it are quick options to take out a spot on a face or annoyance in the background easily, along with other useful tools that can target certain areas.

Below that the temperature can be changed, options for black and white are present, and you can change the White Balance here, as noted before in part 1.

The exposure bar is very important, and can help you get your photos looking perfect. At a low ISO like 100, you could go up to 2 whole exposure levels without losing quality to grain. It's important to note however, that it isn't a fix all to ISO issues and shooting in the field, and you may still get grain in your photos if your ISO is higher than 1600. The contrast bar helps made your edges sharper throughout, and the highlights and shadows features speak for themselves.



DEVELOP MODE INTERFACE

Last but not least is the luminance tool for noise reduction contained within the “Detail” section. The sharpening area can help, but luminance is great at getting the grain out. The problem with it is if you use it too much, things start to look smoothed out like a smart phone filter. The shot below may not seem like it had a high ISO, but we needed a 1600 setting inside. Same with the light photos. This feature is great!



DEDICATION



In August of 2021, my friend Marisa who is featured in this passed away. She was 36 and we had known each other for nearly 20 years. Marisa was once a DJ who played shows for myself and others when we were younger. My first design project in college was of her in 2006. She was one of the best friends a person could ever ask for, and will always be dearly missed.

This final college project update is dedicated to her loving memory. Thank you for being a special part of my life, I'm honored to be able to include you in this final version being published almost two years from the original digital version.





In closing it is my hope that this information is useful to you in the field. If you have a passion for photography like I do, you will produce some amazing content with the use of the some of the basic tricks contained within. My favorite subject is my son, as it is amazing to have the ability to catalog him growing up, and our adventures to beautiful places together with my camera. Building lasting memories while getting those money shots for future use is a great hobby to have!



This zine was originally published digitally by Dave Johnson as part of a project via the Metropolitan State University of Denver Communication Design Department's class "Typographic Aesthetics." Dated this 18th of November, 2020, amidst the Covid-19 pandemic. It was later updated in April 2022 with two additional pages and printed for the first time.