Black & White Photography - Digital Conversion Methods

By David L. Fox Photography LLC

In The Beginning...

My first introduction into photography was with B&W images. Those were mostly of family history. My Grandmother was an artist and she gave me some painting lessons and that probably started my creative drive. I started performing in a band in Junior High school. We needed band pictures and we hired a professional photographer to shoot our promo. And, that got me very curious about photography. Fortunately, the band traveled to larger cities and colleges where I met more artists and was exposed to more art based photography.

As I started to learn and see more Art Photography. I continued to seek out as much information as I could. When I really fell in love with B&W photography was when I finally bought a couple Pentax cameras and various lenses, a B&W Enlarger and developing equipment. That was when I started a basic understanding of the variation and depth of the capabilities available in the exposure and development of negatives and the variety of development methods for making prints.

After that I bought books and studied all forms of photography. Architectural, Landscape, Portraiture and Commercial techniques. As it turned out my first challenging photography was in performance photography in very low-light situations and that meant a huge learning curve and I started experimenting using flash. But, in many performance venues Flash photography wasn't allowed. The more I learned about natural light photography the more I liked it. Fortunately, I was a Pre-Med student and had taken biology and advanced chemistry. That is where my chemistry background paid off. I then researched and experimented with different films and push-pull development of negatives. That was when I also learned and discovered that these advanced techniques applied to producing all B&W imagery and allowed for amazing control from the negative to the final print. The learning and the journey has never ended!

Definition: What Is Black & White / Monochrome Photography

A black and white photograph, is an image where all color has been removed (either in the digital process or through the choice of film). It consists of shades of gray tone that generally go from dark (black) to light (white). Ansel Adams said, a good B&W image always has some pure Black and pure White and good Shadow Detail.

A monochrome image, also has the color removed. But… it may not display shades of gray, which is a requirement to be a black and white image. A monochrome image could be shades of yellow/red (also known as a sepiatone), Selenium Tone or blue/cyanotype (which in the days of the darkroom these were induced through the use of a toning chemicals). So… a monochrome image consists of tones (shades) of something (red, yellow, green, blue, etc.) - not necessarily gray.

Types of B&W

Architectural, Commercial, Fine Art (Abstract, Landscape)

People, Portraiture, Street

Event, Concert Performance

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Various Fundamentals of B&W Photography:

Composition

Contrast

Lines

Tonality

Patterns

Reflexions

Shadow

Simplicity/Negative Space

Shape

Symmetry

Texture

Low Key Effects: **Low key** photos are mainly black or of darker shades of gray. The small bits of white in low key photos draw the viewer towards the subject.

High Key Effects: **High key** is the exact opposite of low key. High key photos are predominantly white or lighter shades of gray.

Use B&W to Reduce Distractions: Black and white photography at times can reduce elements that are distracting in our composition by controlling the light and colors. Black and white can also hide noise problems due to high ISO usage. You can use this technique to convert color noise and make it into a texture. This is very powerful in Night Photography.

Use B&W to Emphasize Subject: Use black and white photography to increase emphasis towards the subject. This is particularly useful with high contrast.

Use B&W to Create Mystery: Photography is not exclusively used to present the obvious. Using black and white effectively, we can add some mystery to our photos.

Use Black and White to Reveal Hidden Details: With only black and white contrasts, we can reveal the details, textures and patterns that was lost in color.

At the end of this presentation document are website links for you to do more learning and research.

Techniques – Exposure

Starting with a proper capture is paramount. If you're using film or shooting digital.

In the days of film. You exposed for the shadows and developed for the highlights. Metering properly using a ratio spread (Like the Zone System. Developed by Ansel Adams) gave you the ability to produce a negative that you could then use Dodging and Burning to develop a good print. Using different films and knowing how to push or pull process allowed you to reduce or increase grain. Which could be used to create various artistic techniques.

With Digital capture, you expose for the highlights and capture a proper histogram so you have a full range of color. Then, you post process the image to bring out the shadows and detail. In many instances if you get a proper capture you might not need much post processing. Capturing your image in the RAW file format gives you the ultimate capability to edit what you want and will allow maximum noise reduction. Shooting in the lowest ISO possible will also reduce noise. Or, if you have noise, you can use it to create texture effects.

Methods and Accessories for capture:

1. Capture in the RAW file format if possible.
2. Expose with a proper Histogram. Capture as much color as possible.
3. Polarizing Filter: To enhance clouds, darken the sky and reduce glare.
4. Graduated ND Filter: To selectively darken the sky and the highlights in clouds at exposure. Especially, if you are shooting in Jpeg file format.

5. Use HDR Capture: In camera or using software. This makes High Key and InfraRed much easier to post process.

6. Variable ND Filter or an assortment of ND Filters: To make long exposures in bright light when needed.

**HDR capture has some special considerations. It is best to use a tripod if possible. Especially, if you are using, "In Camera Processing." When shooting HDR handheld and the darker exposures get longer, the images most likely won't align properly because of movement. Then, the image will appear blurry. If you do need to shoot handheld, possibly try to lean against something stationary and hold as still as possible. Now, this can be a creative style. But, If if they aren't aligned, and you want them to line up. You can post process them in your software and use the, "Align Layers," feature. Then, your image will be sharper. Many times using HDR post processing can give you much more control of the final image too.

Converting digital images to B&W can allow you to shoot in what are considered poor conditions for Color photography. Like gray, dreary or rainy days and in very harsh light conditions. It expands when and where you can shoot.

One good example is during very sunny and hot days. That is an excellent time to shoot high contrast scenes to accentuate lines and texture. And, to develop an infrared (IR) style without using an infrared capable camera. On a hot and sunny day you can ride around in your air conditioned vehicle and jump out, take some shots. Or, on cold, gray or overcast days the same can apply. Look for line, texture and subjects of high contrast. Night scenes can come to life or have a great sense of mystery. Is the object of interest the, "Big Picture or the Details?" Plus, If you are an advanced image editor, you can move to Photoshop or advanced editing programs and add to the sky, or create something from several images. Subtract and simplify, crop and cut.

I believe the beauty of Photography is that it is limitless in the possibilities!

Post Processing

This is where the art, and the fun... or the WORK, moves to the creative process. And, where you can develop you own style, or you can use presets available in the image editor you're using.

Most of the techniques I use can be used in most of the good image Editors. There is also Capture One, GIMP, Paintshop Pro, Luminar and so on. For editing on mobile devices there are many popular Apps. Some of that was covered at a former Club presentation and you can research those yourself.

The other possibility is you can use presets available as downloads or use add-on extensions or programs like DxO Silver Efecs Pro, Google Nik Collection, On1 RAW and many others. There are photographers that used negative films and like to use some of these programs that emulate the film emulsions they liked.

Personally, do not use any of these programs because I have developed my own styles and techniques. I have found that presets are hard to apply for the work I do because so many times the exposure can be so different from one image to the other. I will make temporary presets and use the Sync and Copy-Paste to apply to a group of images from a similar lighted situation or shoot.

The majority of the time I use Lightroom Classic. Recently, I have been using Lightroom Mobile on my iPhone and iPad. Sometimes I use the Photos App for quick edits. Up until the last 6 months I had been experimenting and learning with On1 Photo RAW. It has become a very powerful and versatile program. But, because of their and Lightroom's constant upgrades, and my limited time, I haven't been able to keep up currently. My focus has been on Lightroom Apps.

Editing The Image

For converting an image to just a basic B&W image, start with the Basic Global editing. Cleanup any sensor spots and possibly crop the image.

Work your way down starting with White Balance. And work down through the tools. You might try the, "Auto," feature first? Sometimes it is a good place to start. Scott Kelby is big on that. You might not use some of these controls until after most of your selective editing has been done. Like the vignette or contrast. Sometimes it becomes a back and forth dance.

Next would be to use the, "Selective," tools to target areas you want to add, subtract exposure (light paint), sharpen and adjust the shadow details etc, etc. These tools can then be used later after your B&W conversion too.

Lightroom has presets for a variety of B&W styles. There are also the added ones for Grain, Sharpening, Vignetting etc. Some of you might have also added presets you have bought or gotten from other people and have added them to your Presets list that you like.

Or, then next step would be to click on the, "Black & White," menu and then scroll down to the, "B&W," controls and the adjust the, "Black & White Mix." This where you gain much more control over the brightness of the former colors. Using these would be similar to how photographers used color filters to change the shades and contrast when shooting film. Red would darken the sky. Orange would slightly darken the sky, would remove tan lines on models, remove freckles and make skin tones better.

I have found that to get much greater control of the B&W editing. It is good to over saturate and add vibrance. Use dehaze to bring out darker skies or reverse that and start with a more high key look an add or subtract texture. ** Using this technique and pulling back the clarity is great for an infrared or softer artsy look.

Printing

For standard printing most people or labs will just use or only allow Jpeg srgb files. If you want to print very high quality fine art prints in B&W, I recommend using a printer or lab the will let you use Tiff or PSD files, at 16bit, and at minimum Adobe RGB or better, ProPhoto RGB. This produces supeior detail in the shadow areas and there won't be any banding in the skies or gradients. This will produce very large files. But, it is worth it.

Links

I've listed these as more beginner first and more advanced later. Then, websites with examples.

https://www.pixpa.com/blog/black-and-white-photography

https://www.pixobo.com/20-essential-black-and-white-photography-tips-for-beginners/

https://www.bhphotovideo.com/explora/photography/tips-and-solutions/10-tips-how-create-better-black-white-images

https://photographylife.com/black-and-white-photography

PhotoArgus.com: https://www.thephotoargus.com/60-inspiring-examples-of-black-and-white-photography/

http://www.photogs.com/bwworld/creativity/50masterphotogs.html

https://www.theguardian.com/artanddesign/gallery/2015/nov/23/masters-photography-walker-evans-friedlander-winogrand-bravo

http://lenswork.com/

https://www.bandwmag.com/