Chapter 1: Black Labrador Retriever Facts

Common processes[edit] Key stages in production of Ag-based photographs. The latent image is amplified using photographic developers, converting the silver halide crystal to an opaque particle of silver metal step 2. Finally, the remaining silver halide is removed by fixing step 3. All photographic processing use a series of chemical baths. Processing, especially the development stages, requires very close control of temperature, agitation and time. Black and white negative processing[edit] Black and white negative processing is the chemical means by which photographic film and paper is treated after photographic exposure to produce a negative or positive image. Photographic processing transforms the latent image into a visible image, makes this permanent and renders it insensitive to light. The film may be soaked in water to swell the gelatin layer, facilitating the action of the subsequent chemical treatments. The developer converts the latent image to macroscopic particles of metallic silver. A rinse with clean water may be substituted. The fixer makes the image permanent and light-resistant by dissolving remaining silver halide. A common fixer is hypo, specifically ammonium thiosulfate. Residual fixer can corrode the silver image, leading to discoloration, staining and fading. Film may be rinsed in a dilute solution of a non-ionic wetting agent to assist uniform drying, which eliminates drying marks caused by hard water. In very hard water areas, a pre-rinse in distilled water may be required - otherwise the final rinse wetting agent can cause residual ionic calcium on the film to drop out of solution, causing spotting on the negative. Film is then dried in a dust-free environment, cut and placed into protective sleeves. Once the film is processed, it is then referred to as a negative. The negative may now be printed; the negative is placed in an enlarger and projected onto a sheet of photographic paper. Many different techniques can be used during the enlargement process. Two examples of enlargement techniques are dodging and burning. These treatments remove much of the carried-over alkaline developer, and the acid, when used, neutralizes the alkalinity to reduce the contamination of the fixing bath with the developer. Black and white reversal processing[edit] This process has three additional stages: Following the stop bath, the film is bleached to remove the developed negative image. The film then contains a latent positive image formed from unexposed and undeveloped silver halide salts. The film is fogged, either chemically or by exposure to light. The remaining silver halide salts are developed in the second developer, converting them into a positive image. Finally, the film is fixed, washed, dried and cut. Modern colour negative film is developed with the C process and colour negative print materials with the RA-4 process. These processes are very similar, with differences in the first chemical developer. The C and RA-4 processes consist of the following steps: The colour developer develops the silver negative image, and byproducts activate the dye couplers to form the colour dyes in each emulsion layer. A rehalogenising bleach converts the developed silver image into silver halides. A fixer removes the silver salts. The film is washed, stabilised, dried and cut. This is optional, and reduces the number of processing steps. A black and white developer develops the silver in each image layer. Development is stopped with a rinse or a stop bath. The film is fogged in the reversal step. The fogged silver halides are developed and oxidized developing agents couple with the dye couplers in each layer. The film is bleached, fixed, stabilised and dried as described above. Such a hardening bath often used aldehydes, such as formaldehyde and glutaraldehyde. In modern processing, these hardening steps are unnecessary because the film emulsion is sufficiently hardened to withstand the processing chemicals. The image silver may be reacted with elements such as selenium or sulphur to increase image permanence and for aesthetic reasons. This process is known as toning. In selenium toning, the image silver is changed to silver selenide; in sepia toning, the image is converted to silver sulphide. These chemicals are more resistant to atmospheric oxidising agents than silver. If colour negative film is processed in conventional black and white developer, and fixed and then bleached with a bath containing hydrochloric acid and potassium dichromate solution, the resultant film, once exposed to light, can be redeveloped in colour developer to produce an unusual pastel colour effect. Small scale processing[edit] A cut-away illustration of a typical light-trap tank used in small scale developing. In
amateur processing, the film is removed from the camera and wound onto a reel in complete darkness usually inside a darkroom with the safelight turned off or a lightproof bag with arm holes. The reel is placed in a specially designed light-proof tank called daylight processing tank or a light-trap tank where it is retained until final washing is complete. Sheet films can be processed in trays, in hangers which are used in deep tanks, or rotary processing drums. Each sheet can be developed individually for special requirements. Stand development, long development in dilute developer without agitation, is occasionally used. Commercial processing[edit] In commercial processing, the film is removed automatically or by an operator handling the film in a light-proof bag from which it is fed into the processing machine. The processing machinery is generally run on a continuous basis with films spliced together in a continuous line. All the processing steps are carried out within a single processing machine with automatically controlled time, temperature and solution replenishment rate. The film or prints emerge washed and dry and ready to be cut by hand. Some modern machines also cut films and prints automatically, sometimes resulting in negatives cut across the middle of the frame where the space between frames is very thin or the frame edge is indistinct, as in an image taken in low light.
CONVERTING A COLOR PHOTO INTO BLACK & WHITE. Converting a digital color photo into black and white goes beyond simply desaturating the colors, and can be made to mimic any of a wide range of looks created by using color filters in black and white film photography.

A strong red color has been shown to raise the blood pressure, while a blue color has a calming effect. Being able to use colors consciously and harmoniously can help you create spectacular results. The Color Wheel The color wheel or color circle is the basic tool for combining colors. The first circular color diagram was designed by Sir Isaac Newton in 1704. The color wheel is designed so that virtually any colors you pick from it will look good together. Over the years, many variations of the basic design have been made, but the most common version is a wheel of 12 colors based on the RYB or artistic color model. Traditionally, there are a number of color combinations that are considered especially pleasing. These are called color harmonies or color chords and they consist of two or more colors with a fixed relation in the color wheel. ColorImpact is designed to dynamically create a color wheel to match your base color. The three secondary colors green, orange and violet are created by mixing two primary colors. Another six tertiary colors are created by mixing primary and secondary colors. The above illustration shows the color circle with the primary, secondary and tertiary colors. Warm and cool colors The color circle can be divided into warm and cool colors. Warm colors are vivid and energetic, and tend to advance in space. Cool colors give an impression of calm, and create a soothing impression. White, black and gray are considered to be neutral. Tints, Shades, and Tones These terms are often used incorrectly, although they describe fairly simple color concepts. If a color is made lighter by adding white, the result is called a tint. If black is added, the darker version is called a shade. And if gray is added, the result is a different tone. Tints - adding white to a pure hue: Shades - adding black to a pure hue: Tones - adding gray to a pure hue: Complementary color scheme Colors that are opposite each other on the color wheel are considered to be complementary colors example: The high contrast of complementary colors creates a vibrant look especially when used at full saturation. This color scheme must be managed well so it is not jarring. Complementary color schemes are tricky to use in large doses, but work well when you want something to stand out. Complementary colors are really bad for text. Analogous color scheme Analogous color schemes use colors that are next to each other on the color wheel. They usually match well and create serene and comfortable designs. Analogous color schemes are often found in nature and are harmonious and pleasing to the eye. Make sure you have enough contrast when choosing an analogous color scheme. Choose one color to dominate, a second to support. The third color is used along with black, white or gray as an accent. Triadic color scheme A triadic color scheme uses colors that are evenly spaced around the color wheel. Triadic color schemes tend to be quite vibrant, even if you use pale or unsaturated versions of your hues. To use a triadic harmony successfully, the colors should be carefully balanced - let one color dominate and use the two others for accent. Split-Complementary color scheme The split-complementary color scheme is a variation of the complementary color scheme. In addition to the base color, it uses the two colors adjacent to its complement. This color scheme has the same strong visual contrast as the complementary color scheme, but has less tension. The split-complimentary color scheme is often a good choice for beginners, because it is difficult to mess up. Rectangle tetradic color scheme The rectangle or tetradic color scheme uses four colors arranged into two complementary pairs. This rich color scheme offers plenty of possibilities for variation. Tetradic color schemes works best if you let one color be dominant. You should also pay attention to the balance between warm and cool colors in your design. Square color scheme The square color scheme is similar to the rectangle, but with all four colors spaced evenly around the color circle. Square color schemes works best if you let one color be dominant.
In this tutorial, we've outlined several techniques for converting color photographs to black and white ones that capture the character of traditional black and white photography. Whether you pick the simplest or the most advanced techniques, we're confident you'll be pleased with the results.

Black and White Photography Tip 1: Black and White Photography Tip 2: Give your photo some Silver Effex. Silver Effex Pro 2 is a Photoshop or Lightroom plugin that does one thing—make black and white photos look incredible. In theory, you could replicate everything that Silver Effex Pro 2 does using Photoshop, but I have to confess that I have never been able to do it. Black and whites look absolutely stunning in Silver Effex Pro 2. The program is a bit pricey, but it is worth the money if you love black and white. In fact, when I look at black and white produced by other photographers, I like to think I can tell if Silver Effex Pro 2 was used on the image. Check it out here.

Black and White Photography Tip 3: To visualize in black and white, only pay attention to lines, shadows, and shapes. This trick is very helpful to aid photographers in pre-visualizing a black and white image even though we live in a color world.

Black and White Photography Tip 4: Pay special attention to noise. With the outstanding low light performance of modern DSLR cameras, in addition to the noise removal programs at our disposal, photographers are used to getting away with noise.

Black and White Photography Tip 5: In my experience, the best black and white photos usually have some portion of the photo that is near to pure white, and some portion of the photo that is near black. This increased contrast adds interest to the scene.

Black and White Photography Tip 6: Find a wide range of grays. Having white and black in the image will help add interest to a picture, but if other areas do not have a wide range of varying tones of gray, the photo will most likely look dull. You can achieve a wider range of grays by using flash to throw highlights and shadows over certain areas of the photo.

Black and White Photography Tip 7: When color is removed from the photo, these specular highlights can be distracting the overall composition.

Black and White Photography Tip 8: As long as texture is not front-lit, it will show contrast in fine details, which makes it a compelling subject for black and white. This is why black and white photos of old items such as barns or antiques are so compelling—they have a lot of weathered texture.

Black and White Photography Tip 9: Use the correct terminology: Black and white, monochrome, grayscale. Therefore, black and white images, which put black on a white background, are a type of monochrome image. Grayscale is merely a way to show black and white images on a computer, which uses a reduced set of shades of gray.

Patterns are interesting because of their ordered repetition. Color merely distracts us from giving the pattern our attention. By using black and white, images of patterns are far more compelling.
Chapter 4: Black and White Conversion in Photoshop

Adding color accents to your black-and-white photos isn't hard to do, but, like any artistic technique, it's most effective when used judiciously.

Black and white photography is as popular as ever. On one hand, black and white conversion removes the distraction of color from an image. It can help you to create evocative and dramatic images, that concentrate on the forms and shapes of a subject as a whole. The tools to create it are the same either way. Photoshop conversions Photoshop alone has many methods to create black and white conversions. Some of them are quite useless, and should be avoided. However, it is important to know and understand as many of the tools as possible. No two images are alike, and every image requires its own treatment. While one tool may provide perfect results, another image from the same shoot might require the use of an entirely different tool for the best results. Some of these methods work at the press of a button. While others take a few minutes, they offer absolute control over every aspect of the tonality of your photographs. Also, some of them like the Grayscale method are among the few clearly labeled in Photoshop as black and white conversions. Often these techniques can be used as part of a much larger retouching workflow. But, for straight black and white conversions, these methods will leave you with muddy tones and lacklustre results. With the exception of the Gradient Map tool, you will still need to consider using some other post-processing techniques blemish removal, contrast adjustments on your images, for the best results. This method is as simple as it gets. When prompted to discard your color information, click discard. Out of all of the options, this is the one to avoid at all costs. The act of discarding all of the color information from your images is a destructive technique. Here, you can see how much data was lost when converted to Grayscale. The best advice for this conversion method is to try it, acknowledge it, and then avoid it at all costs. Unlike the Grayscale method, using the Desaturate command does not discard the color information from your image. Because this is an adjustment layer, it can be changed or discarded at any time, without any alteration to your original image, making this a non-destructive technique. In the layer properties tab that should have opened, find the Saturation slider and move it across to This is still not an ideal method, as it offers no control in the actual conversion process. Your image should now be filled with the color you selected. On the layer palette, find the drop down menu for the blending modes and choose color. Intermediate Techniques The previous four techniques are very basic, and offer you very little control, if any, over the actual conversion of your image to black and white. The following techniques offer you a range of control over your black and white conversions, however, they take a bit more effort to get right. Converted to black and white by using Channels Out of all of the techniques presented in this tutorial, this one may be the least obvious. To start, you want to make sure that you can see the Channels tab in your layer palette. This is a destructive technique, so please make sure you are working on a copy of your original image in case it goes wrong. If you select the Red, Green and Blue Channels in turn, you will see variations of your image in black and white as it relates to the color information in your image. Red Channel Green Channel Blue Channel To use this to convert your image, choose the channel that has the most pleasing effect on your image. This will vary depending on your subject, and the range of colors in your photos. In this case, Green is copied and pasted into the Blue and Red channels. Once that is done, click on the RGB channel and you should see that your image has been converted to black and white. While this technique does not offer complete control over the conversion, it can still be used to great effect. The final result with the Green channel, pasted into the Red and Blue channels. For a bit more control, you can use a Channel Mixer adjustment layer, as a non-destructive technique. On the Layer Palette, find the Create new fill or adjustment layer button and choose Channel Mixer or select it from the Adjustments panel. On the properties tab for the Channel Mixer layer, click the box that says Monochrome. To fine tune your image, you can adjust the red, blue and green sliders until you get the effect you desire. These sliders are not very forgiving, so try to keep the adjustments small to avoid destroying the highlights and shadows in your image. To start, find the Create new fill or adjustment layer on the Layer Palette and choose Black and White or select it on the Adjustments panel. Your image will be converted to black and white, and in the properties tab, you will now see an array of
color sliders. Moving these sliders to the right will brighten any tones associated with that color. Moving them to the left will darken those tones. The idea behind these sliders is to emulate the effect that colored lens filters used to have on black and white film. Moving the Reds and Yellows slider to the left brings out the detail in the grass by darkening the tones associated with those colors. For portraits, the most noticeable changes will come from moving the red and yellow sliders. For landscapes, the blue and green sliders will be more useful.

This is non-destructive editing. Converted to black and white using a Gradient Map adjustment layer. The Gradient Map is easily the most powerful of all the black and white conversion tools. It allows you to control every aspect of the tonality of your image. It is worth knowing though, and a bit of practice will make it an invaluable tool on your belt. Make sure your foreground and background colours are set to black and white. You can do this by pressing D on your keyboard. Make sure the gradient that is selected is black to white. Your image is now monochromatic, and you may notice that this technique gives it higher contrast to begin with, than the other methods. If your image looks like a negative, it just means your foreground and background colors are backwards. If you forgot to reset your foreground and background colors, your image probably looks like a colored mess. Just click in the gradient in the properties tab, and choose the black and white gradient to fix this with little error.
Black and white photography is a really enjoyable genre of photography that gives you an opportunity to showcase a subject, scene, or other elements of your photo in a, proverbially speaking, new light. Cityscapes and portraits take on a certain intensity and shapes and patterns take precedence over colors. This is the most awful and least elegant way to convert a color image into a black and white one. With that in mind, any digital workflow that seeks to create a vibrant and interesting black and white image needs to be heavily informed by what the old way of doing things was comprised of. What Do I Need? Furthermore, the general principles can be easily adapted to Photoshop Elements and other advanced photo editing software tools like GIMP. Every technique we use in the various sections of the tutorial will be applied to this base image so that you can see how the different techniques yield different outcomes with a stable frame of reference. The principal reason it has remained such a well loved technique is that it allows you to easily emulate the way black and white film and the accompanying lens filters reduce or emphasize various color wave lengths. This will create a new non-destructive adjustment layer over your current image as well as open up the Channel Mixer—as seen in the screenshot above. You can use the Channel Mixer manually or you can use the presets. When Adobe noticed how much people were using the Channel Mixer to recreate the look of black and white photos, they started including presets that automatically tweak the channels to emulate black and white film with an infrared filter and various color filters like red, green, and yellow. When you place a red filter, for example, on a camera the resulting image will lighten the color associated with the filter and adjacent colors on the color spectrum and darken colors opposite to it on the color spectrum. So a red filter will make red and to a lesser degree orange, yellow, and magenta appear lighter while making greens and blues darker. Armed with that knowledge, we can easily predict what will happen when we use the Black and White with Red Filter preset, right? The red detailing on the Spawn figure will be lighter and the blue portions will be significantly darker. If you opt to make manual adjustments to the image, make note of something important from the output of the preset: Feel free to experiment with spiking them above or below that level but be aware that doing so will blowout or darken your photo, respectively. With that in mind, run wild with the manual adjustments. All you need to do to use the Channel Mixer in manual mode is to check the Monochrome box and adjust the sliders until you are satisfied with your image. Converting Your Photo via the Black and White Menu We mentioned in the previous section how Adobe had started including Black and White filter presets in the Channel Mixer menu for all those black and white enthusiasts. Starting with Photoshop CS3, they went one step further and added in an entire Black and White adjustment layer fine-tuned for creating really fantastic black and white images. First, like the Channel Mixer menu you want to pay attention to your values. You can blow out or underexpose individual colors very easily pushing the Reds, for example, all the way to or all the way down to 0 will turn all the red values in the picture pure white and pure black, respectively. By clicking the hand icon your cursor will turn into a dropper tool. This makes it extremely easy to make fine adjustments to just that color. You can easily click on whatever portion of the image seems too overbearing and then adjust things accordingly to de-emphasize it. Recall that the background of the original color image was mostly greens and yellows. When we click on the background using the dropper tool those are the channels that blink in response. By adjusting those channels down we end up with the image seen above—the background is understated and the figure stands out. The other tool of interest here is the Tint tool. If you have a hankering for some old-school toning and tinting, you can add a tint to your photo here without the hassle of making another adjustment layer. If we check Tint, it defaults to a sepia-style tint, but you can easily click on the color swatch to pick a different color. The first shortcut is to use the Gradient Map to respectfully dump the color values of your photo while preserving the contrast and richness of your image. It does, however, lack a certain punchiness. We can remedy that by quickly adding in another layer. Right
click on the Gradient Map layer we just made and select Duplicate. Your image will become a little more intense as the effect of the Gradient Map is enhanced. So intense, in fact, that the whites are blown out and the black are quite black. Most people will want to make one final tweak, though.
Chapter 6: GIMP - Converting Color Images to B&W

Lab mode records the brightness and colour values separately, meaning in Lab you can discard the colour information to leave a black and white image. It's not available in Photoshop Elements. Image > Mode > Lab Color.

Save this to Pinterest: The American Kennel Club breed standard states: Any other color or a combination of colors is a disqualification. A small white spot on the chest is permissible, but not desirable. Blacks are all black. A black with brindle markings or a black with tan markings is a disqualification. This helps in the preservation and future of the breed standard, protecting it from being diluted by unwanted genes. The Black Labrador Retriever Used in Hunting It is widely believed that the black Labrador Retriever is the best of the colors to use as a working dog. It is certainly the most popular color seen in those circles. There are a few logical reasons why this could be the case: The Labrador's ancestor, the St Johns Dog, was mostly black and was a highly trainable, hard-working and loyal animal. So in the lab's early history, everybody desired a black and other colors were culled. Due to a long history and many generations of Black Labradors being selectively bred for their working genes, they have a natural drive and temperament for hunting pursuits in their genes. Yellow and especially Chocolate Labs have been mainly bred for their appearance and to closely match the standard for show. They have not been selectively bred for working. Finally, a black dog blends into grasses and woodland better than a bright yellow dog and so is far less likely seen by the hunters' prey, scaring it away. I should say now though that a Black Labrador being more skilled and trainable than the other colors is basically a myth. They have competed against and worked with blacks in all disciplines and have proven beyond doubt they can match the black labs in every way. These other colors have gained popularity over time and yellows and chocolates are widely seen throughout the world, as family pets, working dogs and in the show ring. However, regardless of the skills of other colors, the Black Labrador definitely remains the favorite of the hunting fraternity and is by far the color most often seen with hunters out in the field. We would love to hear any stories of you and your pet. Or any differences you think exist between the black lab and labs of other colors? Tell us something about your pet in the comments section below. We love hearing from you and will try to answer every comment.
Chapter 7: How to Convert Your Color Photos to Stunning Black and White Prints

The white rectangle on the Black & White adjustment layer in the Layers panel is a layer mask, which you can use to control where the black and white adjustment affects the photo. The adjustment will be visible wherever the layer mask is white, but will be hidden from view wherever the layer mask is black, letting the original color show.

Neutral Blue Table 1: Each of the color channels in LAB contains complete information about an opponent pair of colors. If so, you are not alone. The one point you really do need to get out of this discussion is the concept of two opponent colors that are defined by a single channel. The practical implication is that controlling the curve for this color-opponent channel can be very potent. Make sure to set the Conversion Options as shown in Figure 3. Check the Use Black Point Compensation box. The options you chose in the Convert to Profile dialog will be applied with this quicker method of conversion. In workshops I am sometimes asked whether the roundtrip to LAB causes image degradation in a significant way. In addition, the channel equalization move that I demonstrate later in this column can add noise, so this is something to watch carefully. Then again, there are many ways to add problematic elements to digital imagery—so if there are problems related to LAB this is certainly not unique. Take a look at the studio shot of radishes, taken on a black velvet background, shown in Figure 4. Studio shot of radishes on a black background. Suppose you need to convert the radishes from red more accurately, magenta to green. Open the channels palette. Make sure the A channel is active as indicated by the blue selection shown in Figure 5. With a single LAB move, your radishes are now mostly green with a hint of cyan. Following the A-channel inversion, the red radishes are green. Small adjustments to the curve lead to huge variations of the color in the image. Next, choose the A channel in the drop-down list in the Curves dialog see Figure 7. To reverse the curve, drag the end-points of the A-channel curve from bottom to top at the green end of the graph and from top to bottom at the magenta end of the graph. Once again you have successfully created an abomination of nature, green radishes.

LAB Inversions In my creative work, I tend to find swaps—another word for inversion—that involve luminance information more interesting than simply reversing the curve of the A or B color channel. For example, the high-key photo of flowers on a white background shown in Figure 9 is pretty cool as it stands. I created this high-key image of poppies by photographing straight down, using a light box for the background. To invert the overall image, make sure that all three LAB channels are selected in the Channels palette as shown in Figure 9. All color values in the image will be swapped with their LAB color antagonist counterpart. As you can see in Figure 11, this turns the white background black and the delicate red and white flowers blue. With a complete LAB inversion, the white background becomes black and the flowers turn blue. To do this, make sure the Lightness channel is selected in the Channels palette with all three channels visible as shown in Figure 11. If you select only the L channel, you can swap whites and blacks. This time the lightness values in the image are swapped, with white becoming black and black becoming white see Figure 11. Inverting the L channel puts somewhat more realistic flowers on a black background. A good step to take with this kind of luminance inversion is to use a curve to lighten the image and bring out details in the flowers as shown in Figure 12. Adjusting the L Channel curve provides more detail in the flowers. Inverting the L channel of a high-key photo is a great way to create images that are apparently on black. This involves using a number of LAB adjustments as individual layers and blending them together. The finished image of poppies on black started with an L-channel inversion. LAB Equalizations Equalization is an adjustment that spreads out the values in a color channel. When you consider the nature of the LAB color-opponent scheme, you can see that equalization of an LAB channel might lead to some pretty interesting effects. Essentially, equalizing a LAB channel exaggerates the color values that are already there. To apply an equalization adjustment, select a LAB channel or channels. Starting with the Poppy image on white shown back in Figure 9, the results of equalizing each of the L, A, and B channels are shown in Figure 16. Figure Equalization adjustment applied to the L Channel. Equalize adjustment applied to the A Channel. Equalize adjustment applied to the B Channel. I use a variety of blending modes in the Layers palette combined with masking to combine my creative adjustments in striking ways. For example, creating the apparently
transparent poppy petals shown in the final version of the poppies on black in Figure 15 took the five different LAB adjustments blended as layers shown in Figure. LAB adjustments can be combined as layers using different blending modes. The combination of LAB adjustments and effective use of layer blending modes is a one-two knockout punch. You can use these techniques to create a variety of interesting effects ranging from the subtle rendition of the Anemone shown in Figure 20 to the surreal view of an ancient Bristlecone Pine shown in Figure. This version of an image of an Anemone was created starting with an L channel inversion with other LAB variations layered on top. I particularly suggest you have a look at the spread on blending modes on pages, the extended case study explaining how to work with LAB creatively starting on page, the chart showing the impact of different LAB adjustments on pages, and LAB landscape enhancement on pages.

Chapter 8: Using LAB Color Adjustments - blog.quintoapp.com - Articles

Using LAB sharpening has been used by knowledgeable digital photographers for quite a while and comparable sharpening techniques using only luminance information can be found in other color spaces but the creative possibilities inherent in the LAB model of color are less well known and unique.

Chapter 9: 15 Tips For Stunning Black and White Photography | Improve Photography

Everybody loves a great black and white photo, but most digital cameras only take full-color pictures. This article will show you a few simple ideas for turning your color digital photo to black and white.