

# photokaboom

## Learn Photography

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## Black-and-white Digital Photography

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Coleus (71543).jpg by Rhododendrites

## PDF

Download a PDF of this tutorial [here](#).

### 1 – Why Black-and-white?

#### Reason #1

Color often becomes the main subject in a color photograph.

For example, let's say you're photographing a gymnast.

She's wearing a blue outfit.

The gym wall behind her is yellow.

In the photograph, the color contrast may overshadow the personality of the gymnast.

What if you want the subject of the photograph to be something else?

Photograph in color and convert to black-and-white later.

#### Reason #2

Art is often about transformation.

With black-and-white photography, you instantly transform a scene.

#### Reason #3

A "lay" viewer of your photograph will see your black-and-white photograph as being in the art category —instead of the snapshot category.

#### Clyde Butcher

Color is a reproduction of nature, while black and white is an interpretation, there's much more creativity involved.

I look for textures and forms and shapes and light, where color photographers are looking for colors.

I used to photograph the redwoods in color and in two weeks I would take two pictures that were successful; in black and white, I can take 50.

[Source](#)

There is so much color in Florida, that it's actually distracting to the eye.

So, my theory is that we don't see the true image as well as when photos are contrasted in a black and white format.

[Source](#)

The main reason to do black and white is because the colors are so vibrant you can't see the image.

Black and white shows the oneness of nature.

Without the whole system, nature doesn't work, and I think the black and white brings a reflection of that in the work so you can actually see the landscape.

You don't just see the color.

[Source](#)

## 2 – Is Color Present in a BW Photograph?

The viewer of the black-and-white photograph may infer color.

Ansel Adams wrote, "I can get—for me—a far greater sense of 'color' through a well-planned and executed black-and-white image than I have ever achieved with color photography."

## 3 – Camera Set Up

Click the appropriate link:

- [My camera can only save photographs as JPEGs.](#)
- [My camera can save photographs as raw files.](#)

To check if your camera can save photographs as raw files, do the following.

- 1) Press the Menu button.
- 2) Look for a section called Quality, or a similar name.

Raw files will be discussed in the next section.

### JPEGs Only

Don't set your camera to black-and-white or monochrome.

Photograph in color.

You'll convert the color photographs to black-and-white later.

### Raw Files

Raw files always contain color information.\*

When you open a raw file it'll be in color, even if the camera is set to black-and-white or monochrome.

\* Except for a Leica monochrome-only camera

### Situation #1

Check your camera's menu for a black-and-white or monochrome setting.

This setting may be in a section called Optimize Image, Picture Control, Picture Style, or a similar name.

If you have the black-and-white or monochrome feature:

- Set your camera to black-and-white or monochrome.
- Set your camera to save photographs as raw files.

After taking a photograph, it will appear in black-and-white on your LCD screen.

Compare the black-and-white photograph to the color scene before you.

When you open the raw file to edit it, it will be in color.

You'll convert it to black-and-white.

### Situation #2

If your camera can't take black-and-white photographs, check your camera's edit/retouch menu.

Look for a black-and-white or monochrome feature.

If you have this feature:

- Set your camera to save photographs as raw files plus JPEGs.

RAW + JPEG

- After taking a photograph, go to the edit/retouch menu and select black-and-white or monochrome.

Your camera will create a second JPEG that's black-

and-white.

Compare the two JPEGs of the scene.

You need not do this for every photograph.

When you open the raw file to edit it, it will be in color.

You'll convert it to black-and-white.

## **4 – JPEG vs. RAW**

### **JPEGs**

When you press the shutter release your camera's sensor gathers raw information.

Your camera then "cooks" the raw information into a JPEG.

Your camera makes all of the decisions about exposure, contrast, color, sharpening, and more.

### **Raw**

If you're saving photographs as raw files, all of the information gathered by the sensor is saved.

#### **Raw Advantage #1**

You get to make all of the editing decisions.

You're better at making these decisions than your camera.

For example, let's say you're photographing a forest with a clown peeking out from behind a tree.

Your camera doesn't know that there's a scary clown in the scene.

It'll edit the raw information into a serene JPEG.

You'll edit the raw information to be sinister.

#### **Raw Advantage #2**

Raw files have more information to work with in the shadow areas.

If you need to brighten a dark area in a photograph, the editing in that area will look better with a raw file.

## **5 – What Works as a B&W Photograph?**

If the scene has the qualities below—it'll probably be an effective black-and-white photograph.

- Contrast:
  - Tonal
  - Texture
  - Shapes
- Repetitions:
  - Tonal
  - Texture
  - Shapes
- Texture
- Graphics:
  - Shapes
  - Patterns
- Lighting and tones:
  - High key: Mostly highlights
  - Low key: Mostly shadows
  - Dark blacks, bright whites, with many grays in between

## 6 – Seeing in B&W

Seeing in black-and-white is looking at a scene and previsualizing it in black-and-white.

That's difficult.

If you're photographing with the items in the last section in mind . . .

contrast, texture, shapes, patterns

. . . seeing in black-and-white skills will be picked up as you experiment.

Let's call this the CTSP method for seeing in black-and-white.

Photograph:

**C**ontrast

**T**exture

**S**hapes

**P**atterns

As you photograph using the CTSP method—seeing in black-and-white will follow on its own.

For example, you'll begin to recognize the following situation.

A scene with contrasty colors may photograph poorly in black-and-white.

The contrasty colors—when converted to black-and-white—may be similar gray tones.

Your "eyes" will learn not to photograph such a scene.

### Note

Editing can turn a so-so black-and-white photograph into something better

If the contrasty colors become blah grays—you can increase the contrast between the grays.

## 7 – Other Seeing Methods

The CTSP method is one way to learn to see in black-and-white.

Here are some other methods.

### Method #1

Compare two photographs of a scene—one in color—the other—in black-and-white.

If you do the above exercise ten times—you'll begin seeing in black-and-white.

### Method #2

Study famous black-and-white photographs.

- Imagine the color that was removed.
- Imagine how the photograph would change were the color restored.

Similarly, watch black-and-white films with the sound off.

### Method #3

You can also try using dark gray sunglasses.

### Method #4

Use a viewing filter, such as the Tiffen #1 Black and White Viewing Filter.



B&amp;H Photo

The Tiffen filter is dark amber, eliminating other colors.

## 8 – Conversion

You're saving your photographs as color files.

You'll use an editing program to convert the color to black-and-white.

### Click the Appropriate Editing Program

- [Adobe Photoshop Express JPEG](#), online
- [FastStone Image Viewer JPEG](#), Windows
- [Lightroom JPEG](#) or raw, Windows or Mac
- [Photoshop Elements JPEG](#) or raw, Windows or Mac

## 9 – Photoshop Express Editor

Go to [Adobe Photoshop Express Editor](#).

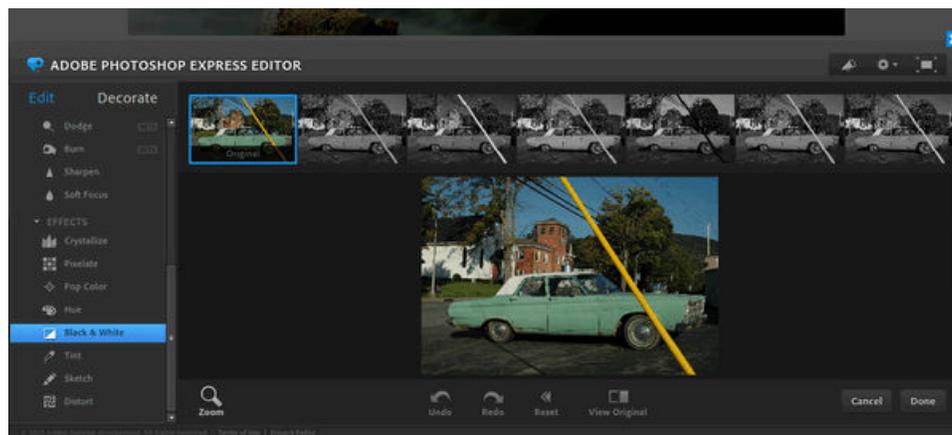
It's a free online editor for JPEGs.

Go to [Adobe Photoshop Express Editor](#) for a tutorial on using the editor.

After you've uploaded your photograph, click Black & White on the left side of the window.

Mouse over the thumbnails above your photograph to see various styles of black-and-white.

Click a thumbnail to select the editing.



## 10 – FastStone Image Viewer

Go to [FastStone Image Viewer](#) to edit JPEGs (Windows).

It's free.

Download and install the program.

Select a photograph.

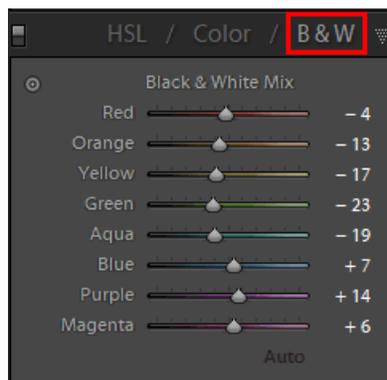
Press **Ctrl + g** to convert your photograph to gray scale.

Edit your photograph further using the tools in the Edit menu and Colors menu.

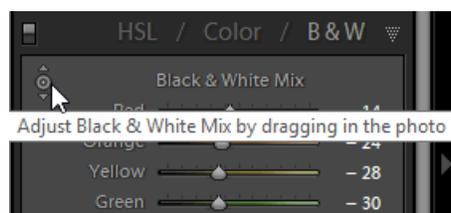
## 11 – Lightroom

The instructions are for Lightroom 6 and Lightroom Classic CC.

- 1) Go to the Develop module.
  - 2) Press Ctrl + ' or Cmd + ' to create a virtual copy.
- You'll have your original in color and can convert the virtual copy into black-and-white.
- 3) In the HSL / Color / BW panel on the right side of your screen, click BW.
- Your photograph is now black-and-white.



- 4) Press the y key on your keyboard.
- Compare the color Before image to the black-and-white image.
- Press y again.
- 5) Go to the History panel on the left side of your screen.
- Right click on the Convert to BW tab and select Copy History Step Settings to Before.
- 6) Press the y key on your keyboard.
- The Before image is now black-and-white instead of color.
- Press y again.
- 7) Go to the HSL / Color / BW panel and adjust the colors.
- By adjusting the colors, you're changing the shades of gray.
- For example, if there's a blue sky, move the Aqua and Blue sliders to darken it.
- Press the y key on your keyboard to compare your editing with the unedited black-and-white version.
- 8) You can also click the tiny icon in the upper-left corner of the panel.



- Move the cursor to the blue sky.
- Click and hold your left mouse button.
- Move your mouse up and down to change the tones of the blue sky.
- Watch out!
- If there's blue elsewhere in the photograph, it'll change, too.

9) Go to the Basic panel and use the sliders and tools.

Again, press the y key on your keyboard to compare.

10) After using the Basic panel, you may need to return to the BW section of the HSL / Color / BW panel for a little tweaking.

11) Raw files have not been sharpened by your camera.

Digital photographs don't look sharp because they're made from square pixels.

The pixel corners jut out.

Sharpening increases the contrast along edges.

Edges are where the pixels jut out.

Your eyes are tricked into seeing the higher-contrast edges as being sharp.

## Sharpening with Lightroom 6

Go to the Presets panel on the left side of your screen.

Open the Lightroom General Presets section and select the appropriate sharpening preset for the scene.

If you don't see the Lightroom General Presets section, click the silver + icon on the right end of the Presets panel tab.

Select Manage Presets.

Make sure Classic - General is checked.

Click Save.

## Sharpening with Lightroom Classic CC

Go to the Presets panel on the left side of your screen.

Open the Sharpening section and select the appropriate sharpening preset for the scene.

## 12 – Photoshop Elements

1) Open a file in Photoshop Elements.

Raw files will open in the raw converter called Camera Raw.

If you're editing a raw file:

- Ignore the Black and White choice in the Treatment section.
- Click Open Image in the lower-right corner of the raw converter.

Your photograph will open in the regular Photoshop Elements.

2) Go to File > Duplicate to make a copy of your photograph.

You'll convert the copy to black-and-white.

### Method #1

3) Make a Background copy.

4) At the top of your screen, go to Enhance > Convert to Black and White.

5) Select a style in the lower-left corner appropriate for the scene.

6) As needed, use the color sliders to lighten and darken their corresponding tones.

7) Avoid using the contrast slider, as you'll create a Levels adjustment layer below.

8) Click OK.

9) Make a Levels adjustment layer and adjust the exposure and contrast.

10) Use the other editing tools, such as Spot Healing, burning and dodging, and so forth.

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Go to [High Pass Filter Sharpening](#).

## Method #2

3) Make a Background copy.

4) Create a Hue/Saturation adjustment layer.

5) Check to make sure the Channel menu is set to Master.

6) Drag the Saturation slider to -100.

7) Open the Channel menu and select a color that's in your photograph.

8) Move the Lightness slider to change the tone of that color in your photograph.

9) Create a Brightness/Contrast adjustment layer and use the two sliders.

10) Use the other editing tools, such as Spot Healing, burning and dodging, and so forth.

11) Raw files have not been sharpened by your camera.

Digital photographs don't look sharp because they're made from square pixels.

The pixel corners jut out.

Sharpening increases the contrast along edges.

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Go to [High Pass Filter Sharpening](#).

## 13 – Other Programs, Free

[darktable](#) Windows and Mac

[GIMP](#) Windows and Mac

[IrfanView](#) Windows

[LightZone](#) Windows and Mac

[RawTherapee](#) Windows and Mac

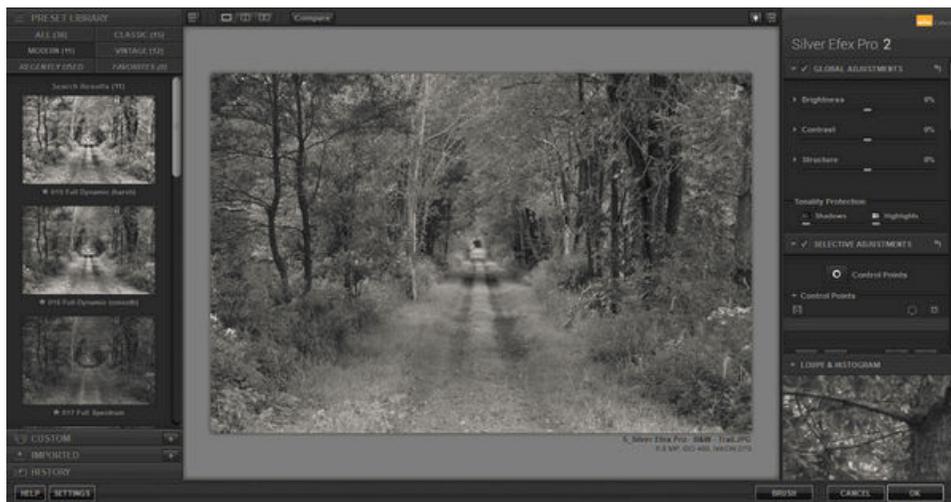
## 14 – Silver Efex Pro

Silver Efex Pro is a plug-in for Lightroom or Photoshop Elements.

Lightroom or Photoshop Elements sends your file to the plug-in—editing is done—and the file is sent back.

Silver Efex Pro is part of a suite of plug-ins by [DXO](#).

If you're a black-and-white photographer, you'll want to use Silver Efex Pro.



There are many presets and tools.

You can simulate the look of various black-and-white films, as well.

Go to:

- [8 Reasons to Use Silver Efex Pro 2 for Your Black and White Conversions](#) Rod Lawton
- [How to apply the Zone System in Silver Efex Pro](#) Andrew S. Gibson

## 15 – HDR

High dynamic range (HDR) photography is helpful for contrasty scenes.

You, manually, or your camera, automatically, take several photographs of a scene at different exposure settings.

Software takes the best part of each photograph and combines the parts into a new photograph.

Go to:

- [HDR](#)
- [HDR with Lightroom](#)
- [HDR with Photoshop Elements](#)

## 16 – Adding Color Toning

You can add a color to a black-and-white photograph by toning it.

Sepia is the most common color used.

You can also split tone.

One color is added to the highlights—and a second is added to the shadows.

### Spot Color

You can retain the color of the scene in an area, and can make the rest of the scene black-and-white.

Go to:

- [Spot color with Lightroom](#)
- [Spot color with Photoshop Elements](#)

### Hand Coloring

You can add your own choices of color to a black-and-white photograph.

Go to:

- [Marina Amaral](#)
- [Hand coloring with Photoshop Elements](#)

## 17 – Filters

Filters are little used in black-and-white **digital** photography.

In black-and-white **film** photography, a red filter darkens blue skies to black.

That's because the red filter blocks the cyan-colored sky.

A filter that's the opposite color of the subject darkens the subject.

A filter that's the same color of the subject lightens the subject.

## 18 – Printing Black-and-white Photographs

### Monitor Calibration

Camera sensors, monitors, and printers all use the same "recipe" for color: sRGB.

If your monitor isn't displaying colors or grays according to the sRGB recipe—your editing will be off.

If you're printing a lot, get a colorimeter to calibrate your monitor.

The device measures the colors and shades of gray of your monitor.

If they don't match the sRGB recipe, the device changes your monitor to match the sRGB recipe.

Go to:

- [Monitor Calibration](#)
- [Color Management](#)

### Paper Isn't as Good as . . .

. . . your monitor.

Your photograph printed on paper won't look as good as it does on a monitor.

Paper can't reproduce the wide brightness range of a monitor.

You may have to reduce the contrast of a photograph when printing it.

If you're using Lightroom, make another virtual copy and tweak it for printing.

If you're use Photoshop Elements, go to File > Duplicate and tweak the copy for printing.

### Paper

There are hundreds of papers.

At first, it's best to use papers made by the manufacturer of your printer.

Purchase a sample pack and experiment.

The papers in the sample pack will have:

- Different surfaces
- Different tones from cool to warm.

Glossy papers will have darker blacks, matte papers, less so.

Try metallic papers for saturated colors.

### Printing at Home

You need a good printer.

An inexpensive color inkjet printer, with only three colors and black, will:

- Reproduce the tones of your photographs poorly.
- Often have color castes.

## Using a Lab

### Local

Digital Photo Lab TJ Max Plaza at Bea Ridge Rd. and Tuttle Ave.

### Online

Be sure to look for a way to tell the lab not to edit/color correct your photograph.

A lab that has a separate section for black-and-white printing may do a better job.

[mpix.com](http://mpix.com)

### Silver Gelatin Prints

You can have your digital photographs printed on silver gelatin paper.

The Darkroom

Fromex True Black & White

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