Digital Black and White Photography
Introduction

As we will find out together, black-and-white photography has always maintained a strong element of craftsmanship.

Successful black-and-white photography places demands on your ability to **see as a photographer** before you click the shutter and ***think in black-and-white.***

Also demanding will be your **post-production** (used to be darkroom) skills.
Now in the digital age, your darkroom is in your computer. Now you can craft your images to your liking with image editors, such as Adobe PhotoShop.

For many photographers, black-and-white was our first love. Some of us watched in awe as images developed before our eyes in the darkroom. Now, with greater flexibility in image manipulation, we have digital darkrooms and better printers available to us today.

We will share practical tips on how to compose great shots of a wide array of subjects and share ideas on manipulating your images for compelling results.

Think in black-and-white.

Create unique, dramatic, elegant and sophisticated black and white (with shades of gray) images that evoke feelings.

Images are reduced to:

- **Line**
- **Shape**
- **Form**
- **Texture**
- **Light**
- **Tone**

With black-and-white, we lose hue, the defining difference between what is color photography and what is black-and-white.

Again, think in black-and-white.

AVOID…
Thinking of black-and-white as simply the original image – minus the color.

AVOID…
Worrying about using colored filters when shooting digitally, as in the old days. PhotoShop and other robust imaging editors will solve these problems for you.

AVOID…
Only using black-and-white simply as a quick fix to save images you couldn't properly color correct.

Ansel Adams once wrote about the negative as the musical score and the print as its performance.

With digital photography, the choice between color and black-and-white is no longer made when film is loaded. Now, the creative photographer can experiment in the digital darkroom and determine which medium works best for a particular image.

To paraphrase Ansel Adams, the score is the captured image, but the performer decides whether to play it in black-and-white, color or play it either way.

Your best black-and-white images will result from:

- **Strong composition** – look for shapes and line
- **Patterns**
- **Textures**
- **Forms**
- **Thoughtful lighting**

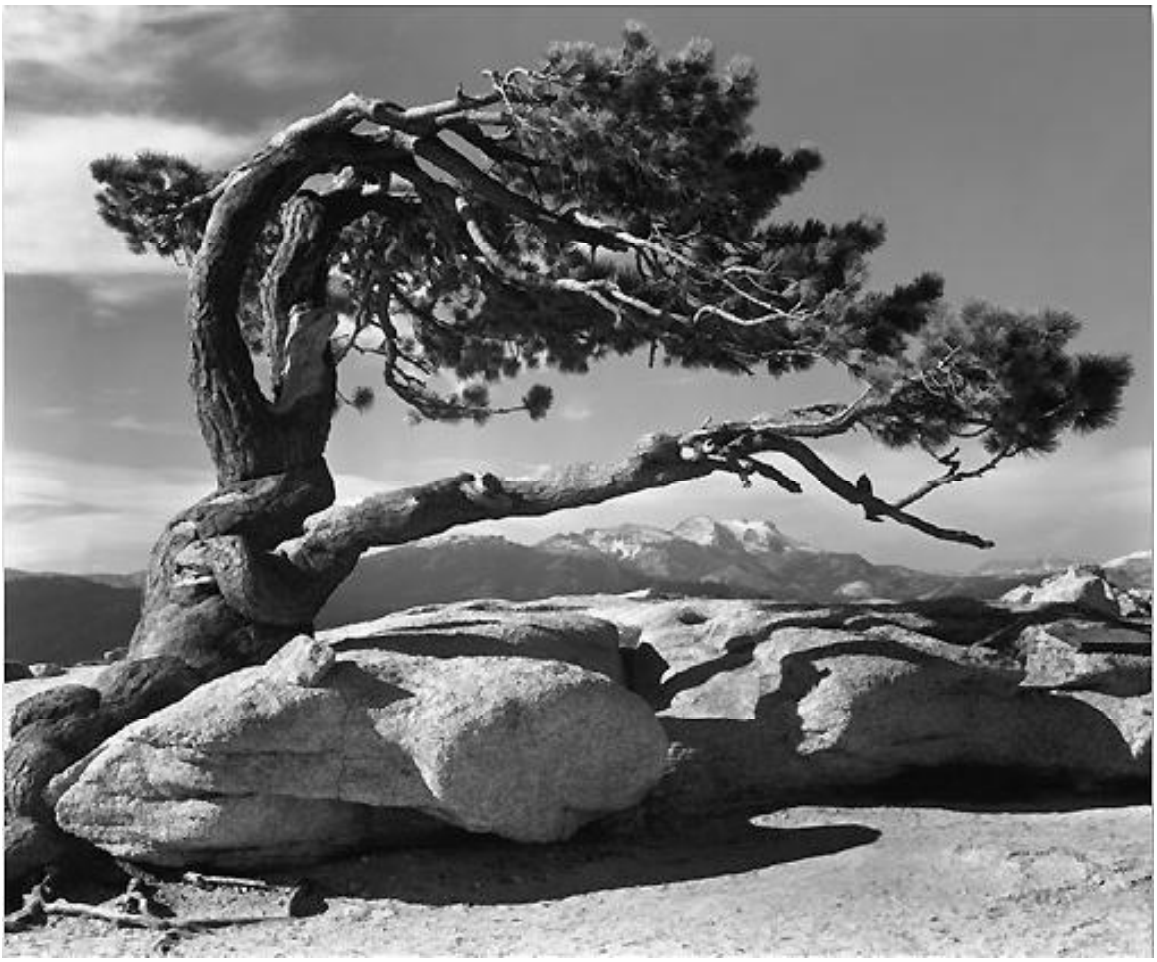
Without color's intoxicating and attraction in offering a wide array of hues, you are faced with relying on the esthetic, graphical qualities of composition, shapes and texture.

Geometry in Composition
http://photoinf.com/Golden_Mean/Petteri_Sulonen/Geometry_in_Composition.htm

You will grow more sensitive to the quality of light.

Albert Renger-Pazsch. *Buchenwald in Herbst (Beech Forest in Autumn).* 1936. Silver gelatin print.

Albert Renger-Pazsch. *Fichten im Winter (Spruce in Winter).*1956. Silver gelatin print.



Ansel Adams
http://www.anseladams.com/ansel_art/nationalparks.html

Examples:
http://jaystoeg.smugmug.com/gallery/5609558_dRyiw#344358283_5cp3R

http://jaystoeg.smugmug.com/gallery/5609918_VCxqr#344374959_uNYFN

Some scenes are monochrome:
http://www.smugmug.com/popular/all/i-JJXbS2M

Learning to "See" in Black-and-White

First, look around you.

Study the work of your favorite photographers and painters.

Visit galleries and see what strikes you about photographs and paintings.
Browse through collections of your favorite photographers in coffee table books.

Study compelling advertisements and artwork created by leading professionals in the arts.

Check out photo essays from published photojournalists.

How do we see?

Our eyes go to the brightest part of a photograph, where contrast is highest.

Subject matter:
We go first to faces – perhaps as a survival instinct – specifically to features that would indicate friend, foe or possible mate.

We process visual information very quickly, as the brain electronically parcels parts of images to different cortical areas concerned with faces, colors, shapes, motion, and other parts of the scene. Then the brain puts all that information back together into a coherent composite before directing the eyes to move around.

As you begin to empirically know what entices the eye, you can begin to create more memorable images. When you look

through the viewfinder, tap into the most primal attractors of attention.

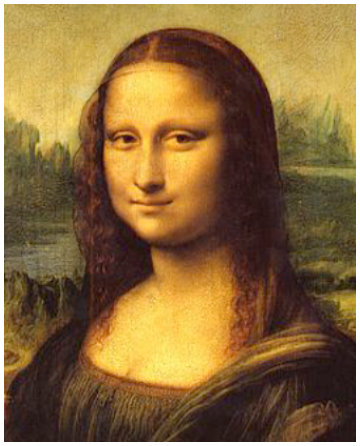
Some Eye Facts:

Black-and-White:
Does the eye care whether a photograph is black-and-white or color when fixating on a photograph? Not really. More important is contrast and whether an object creates a “hotspot” for the eye.

In practice, when shooting black-and-white, make sure you compose the scene to keep viewers’ attention where you want it.

Pay attention to how you arrange elements in your scene.
Pay attention to where you place faces in your scene.

Faces:
We’re naturally drawn to faces. Our eyes and brain evolved to assess almost instantaneously whether we are seeing a predator, prey or a mate.



Sensitivity:
In principal, the eye's nighttime ISO has been estimated at about 800. Since day vision is about 600 times less sensitive to light, on a sunny day your eyes have an ISO close to about 1.

In practice, the slowest film you can buy is ISO 25 and ISO may be 100 on your digital camera. Today's DSL's now can reach up to 6400 ISO so your camera sees in the dark better than you can. Take advantage of your camera's nighttime seeing ability and shoot away when the lights are low.

Dynamic Range:
The luminance ratio of sunlight to starlight is 1 billion to 1. Human vision spans the whole range, a spread far better than any camera's.

In practice, while shooting you can use split neutral density filters to darken the bright sky and make use of high-dynamic range photography. You can sharpen your image editing abilities in post-production. You will study the zone system.

Your objective is to translate what the image output to look like in your actual experience when you looked at the scene through the viewfinder.

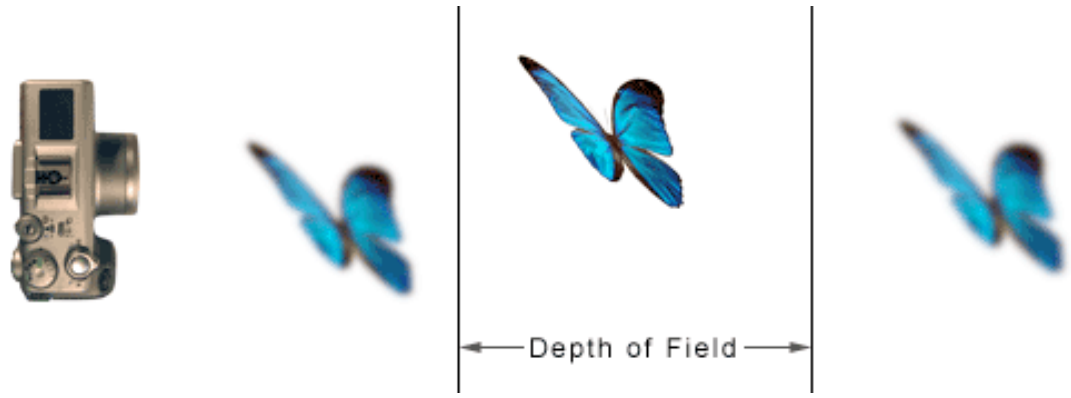
Ansel Adams

Other HDR examples
http://www.smugmug.com/search/index.mg?searchWords=hdr&searchType=global&x=0&y=0

Terrible (but as common as dandelions) HDR:

https://www.google.com/search?q=hdr&tbm=isch&tbo=u&source=univ&sa=X&ved=0ahUKEwjOz5_6tM3KAhVK6GMKHRYvCbsQsAQINQ&biw=1988&bih=1207&dpr=0.9#tbm=isch&q=hdr+photography

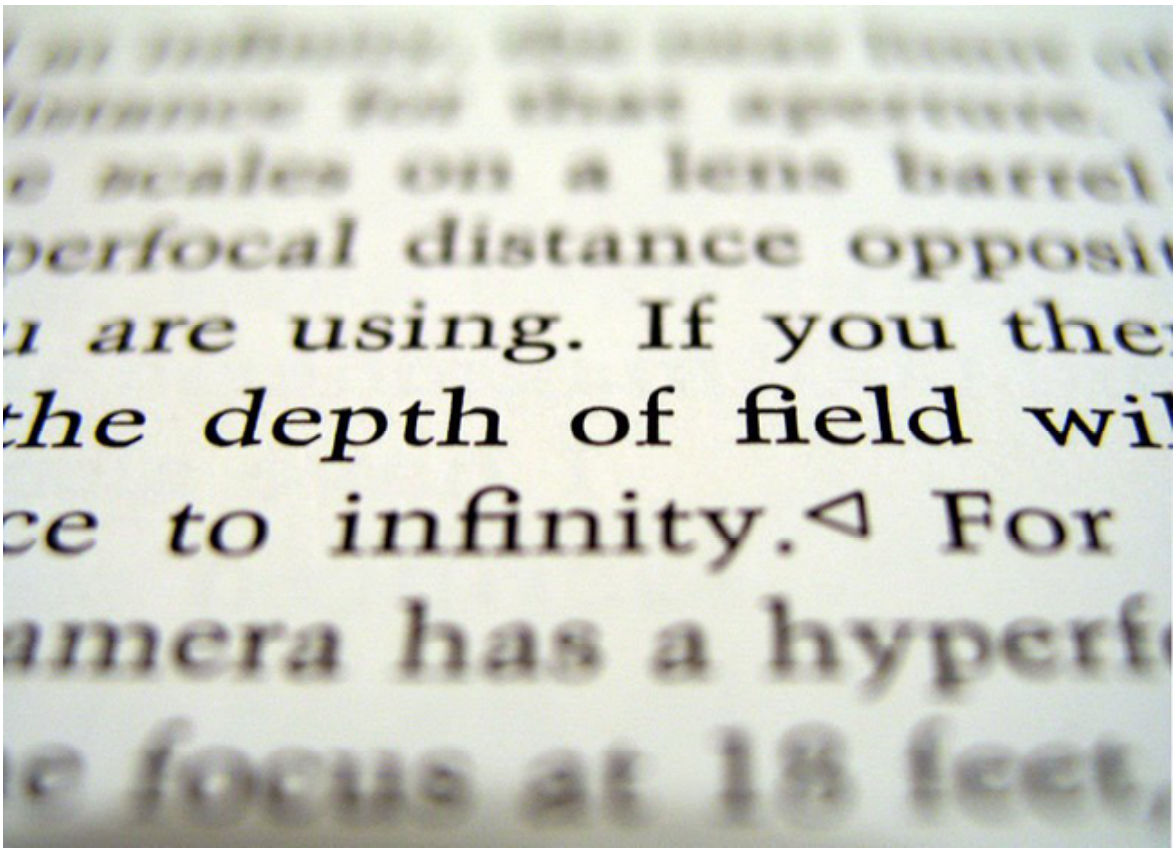
Depth of Field:



With a focal length of about 22mm and a field of view of almost 180 degrees at its extreme, our eyes are capable of f/3.5 at wide open. The sharpest point, at the center of the retina called the fovea is sharp at 2 degrees.

In practice, this may be why shallow depth of field is so visually appealing.

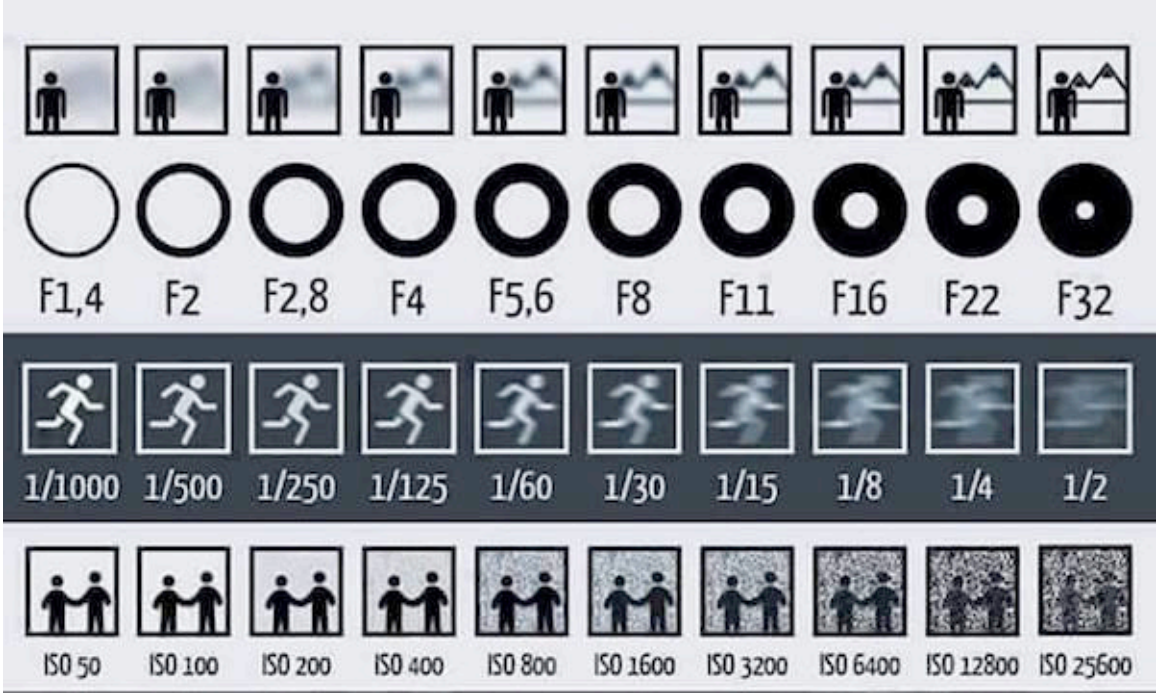
Some examples of shallow DOF:

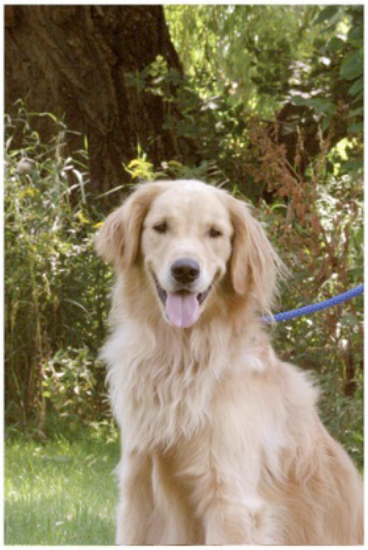


Caution: While using narrow depth of field (DOF), it is critical to get – critical focus.

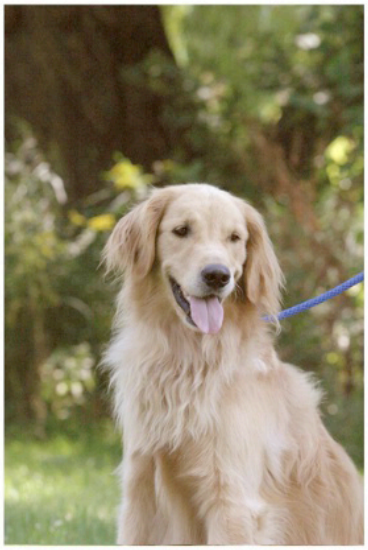
http://blog.mingthein.com/2012/07/23/critical-focus/

Caution: Opening the aperture to achieve narrow DOF changes your exposure as well.

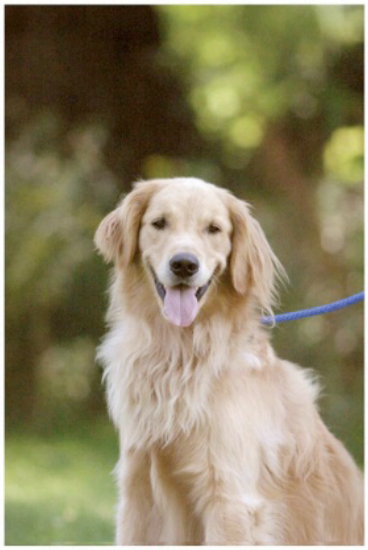




f/22 (Narrow Aperture)
Too Much in Focus



f/5.6 (Fairly Wide Aperture)
Background Blurred More



f/2.8 (Wide Aperture)
Background is Undistracting

Open aperture: Achieves narrow DOF

Lighting:
Researchers studied 225 paintings going back three centuries and found that 75% depicted the light source coming from above and to the left. Tests done on humans confirmed that the brains of right-handed people infers illumination coming from above left, while southpaws see the light coming from above right.

Johannes Vermeer - a Dutch Baroque painter from the Dutch Golden Age, 1632-1675 – must have been right-handed:

And so was Rembrandt…

References:

Popular Photography, August 2008, “The Photographer’s Guide to the Eye by Neal Matthews

John Beardsworth, Digital Black and White Photography (2004).