New Camera, New Features, New Memories

Presented by: Brian Castle,
Picture Perfect Photography

Topics of Discussion

- Quality Settings
  - Megapixels, Fine, File Type's (jpeg's)
- White Balance
- Macro
- Image Stabilization
- Exposure Compensation
- Metering
- Aperture
- Shutter Speed/ISO

What are Megapixels?

- The number of megapixels a camera features can also help to determine the size photos you can print or the amount of cropping you can do.
  - Generally 3-6 megapixels will be enough for general snapshots and can be blown up to virtually any size under a 20x24 and still be sharp.
  - Higher megapixels do not always produce a better print. Only if you plan to blow it up to huge sizes.
  - If you definitely want to something you want to frame go for the higher megs.
  - The higher the megapixels the more room it takes up on your memory card
    - When you transfer the photos to your computer it takes up more room with higher megapixel use.

Megapixel to amount of Photo conversion table

Card size	Number of photos
128MB	29
256MB	58
512MB	116
1GB	232
2GB	464
4GB	929

8 megapixel camera (3264 x 2448)
File size: 4.2MB

Card size	Number of photos
128MB	102
256MB	203
512MB	406
1GB	813
2GB	1625
4GB	3251

3 megapixel camera (2,048 x 1,536)
File size: 1.2MB

What Quality Settings do I use?

- RAW - Unprocessed
- TIFF - Unprocessed
- JPEG - Processed

*Unprocessed – You have to process the photo in an editing type software.

*Processed – The camera converts and establishes color, exposure, etc. based on how much contrast, saturation the camera thinks it needs to make a good photo

Fine Tuning

- Normal – Fine – Superfine
- Basic – Normal – Fine
- Good – Better – Best
- Canon uses these symbols - Smooth is best, stepped in worst quality.

Fine tuning and Banding

Is there anything wrong with the picture?

What about now?

Perfect Color – Our buddy, Duke

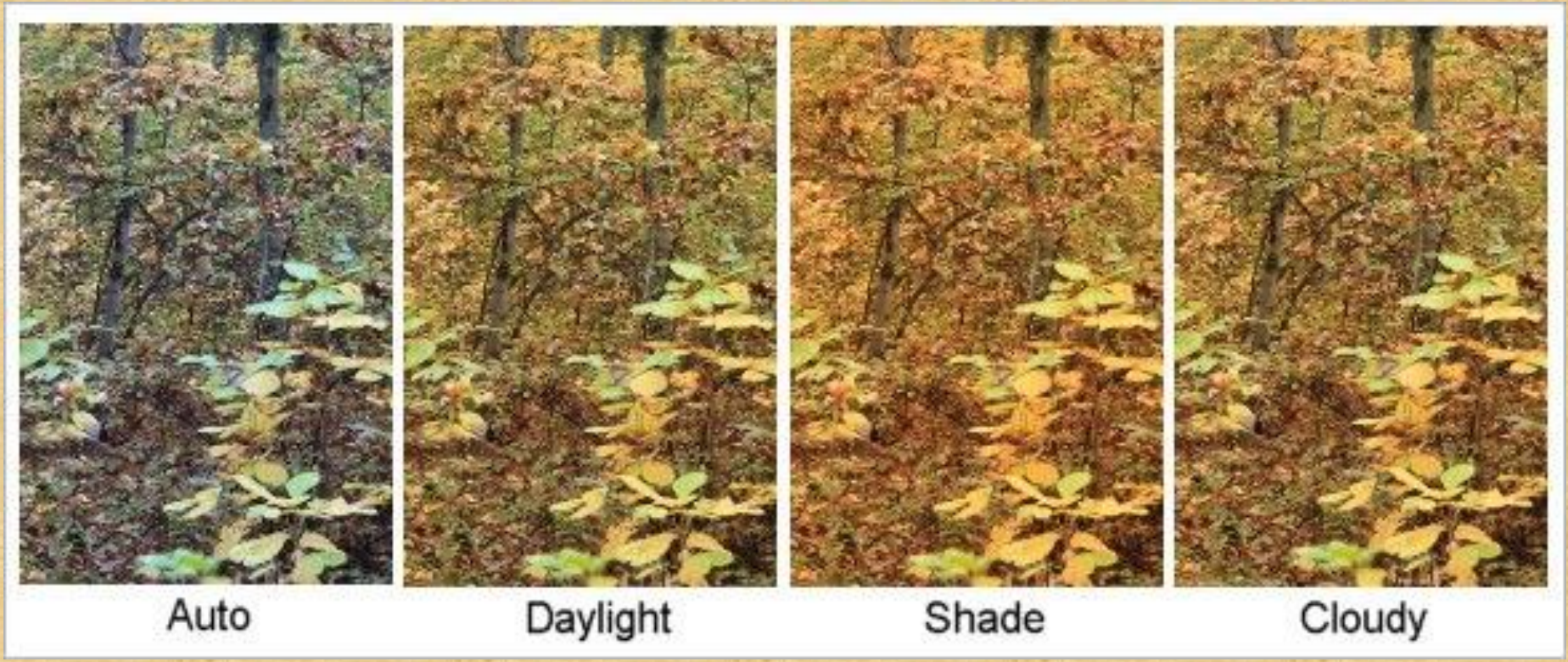
White Balance (WB)

- Auto,Tungsten, Cloud, Incadescent, Flourescent, Shade, Custom.
- Allows a more accurate color in photos.
- Color ranges from Cool (Blue) to Warm (Orange/Yellow).

White Balance Cont……

- Auto-General best guess
- Tungsten (light bulb)-under incandescent light will cool the colors.
- Flourescent (Bar)-Warms inside light
- Daylight (Sun)-cools down outside light.
- Cloud-Warms outside dull colors
- Shade-Warms up more than cloud
- Flash (Bolt)-Compensates for cool flash.
- Custom-18% grey card, expodisc, etc…

White Balance Example



Use White Balance to your advantage

Let's Get

- ✓Megapixels
- ✓Fine Tuning
- ✓White Balance

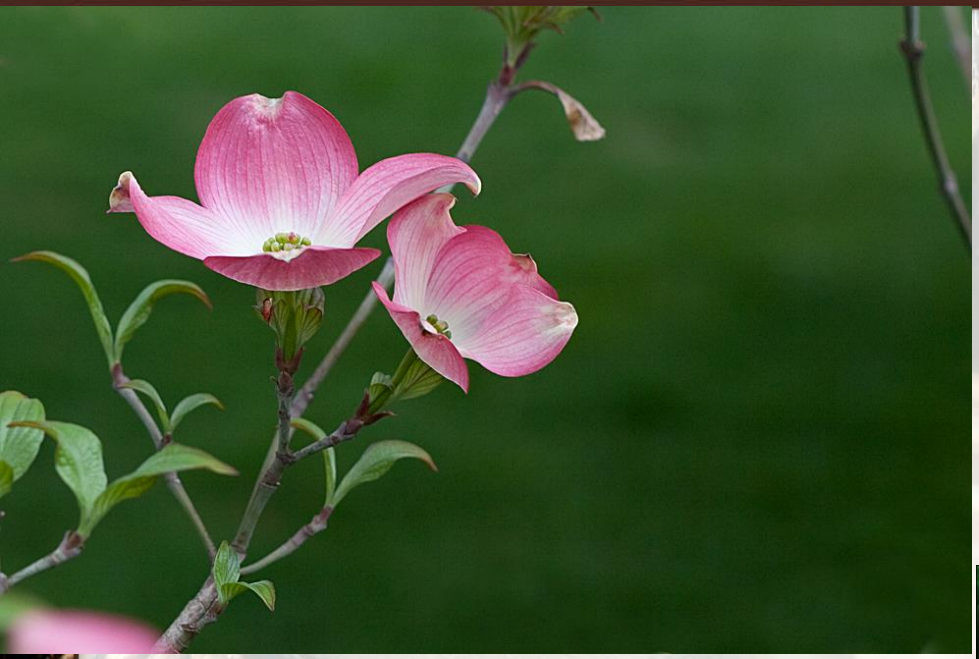
Macro

- Allows you to focus on closer objects with fine focusing capabilities.

- Push the macro button, then push the shutter button half way to focus on closer objects.

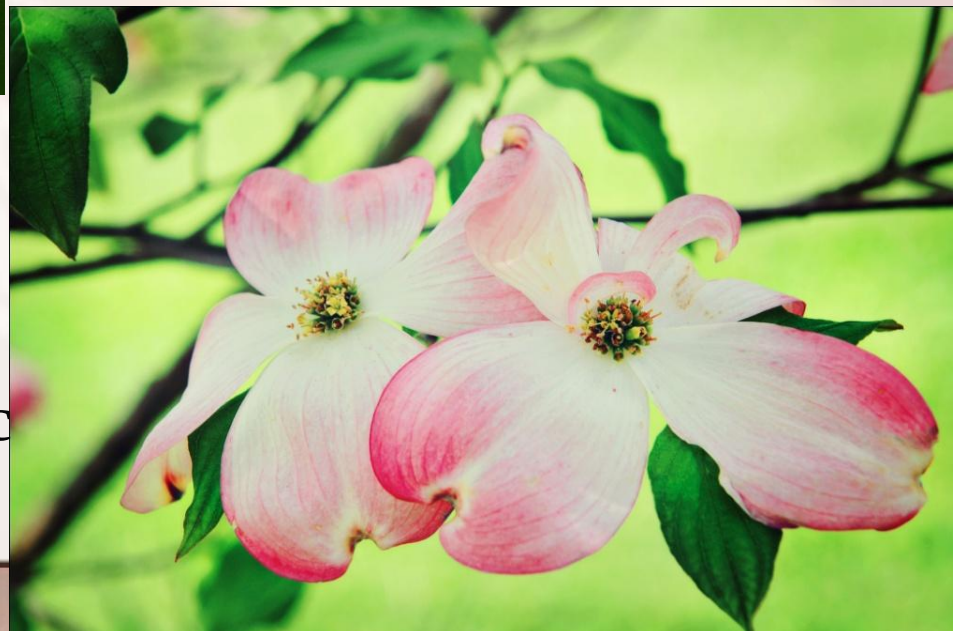
- May have to hold the macro button down until the camera focuses, then push the shutter button.

Macro



- Notice the Dead Space
- Notice the Angle of the flower

- Fill in the Frame
- Don’t make the eye wander.
- Concentrate on your main topic



Vibration Reduction or Image Stabilization

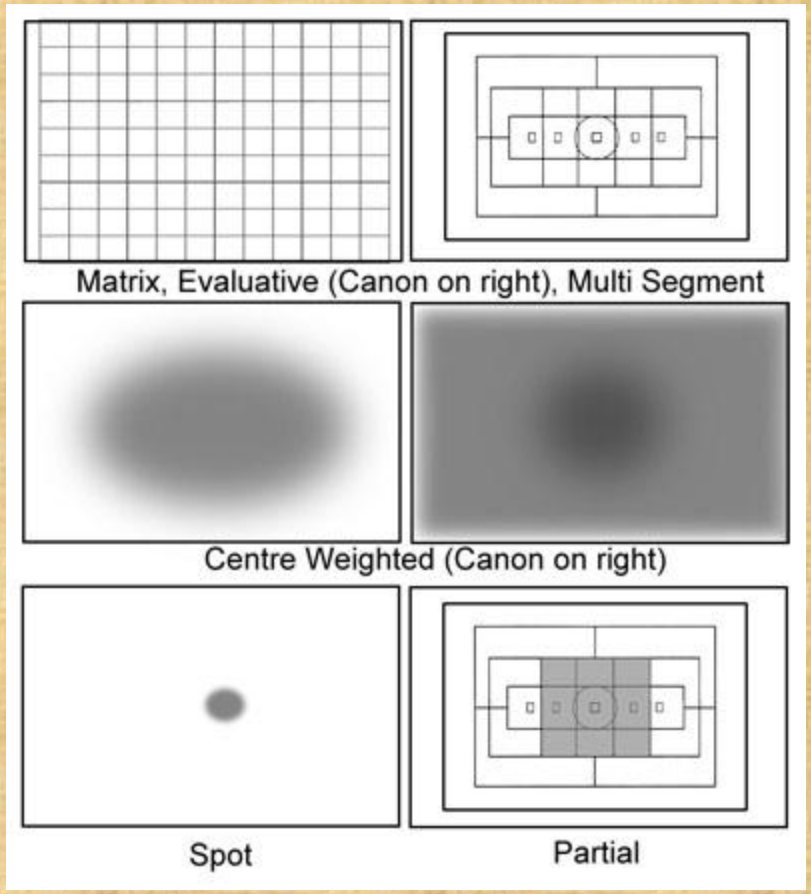
- Is a setting used to reduce blurring associated with the motion of a camera during exposure.
  - May have options such as Continuous, Panning, Shoot Only, etc.

Exposure Compensation

- Exposure Compensation is a hasty way to adjust the shutter and aperture ratio without having to delve into manual mode.
- Set in EV Units

Metering and Exposure

Metering-the brains behind how your camera determines the shutter speed and aperture, based on lighting conditions and ISO speed.



Here the camera measures the light intensity in several points in the scene, and then combines the results to find the settings for the best exposure.

The meter concentrates between 60 to 80 percent of the sensitivity towards the central part of the viewfinder.

The camera will only measure a very small area of the scene (between 1-5% of the viewfinder area).

Let's Get

✓Macro

✓Vibration Reduction

✓Exposure Value

What is Aperture?

- **Aperture** is referred to the lens diaphragm opening inside a photographic lens.
- AKA F-Stop

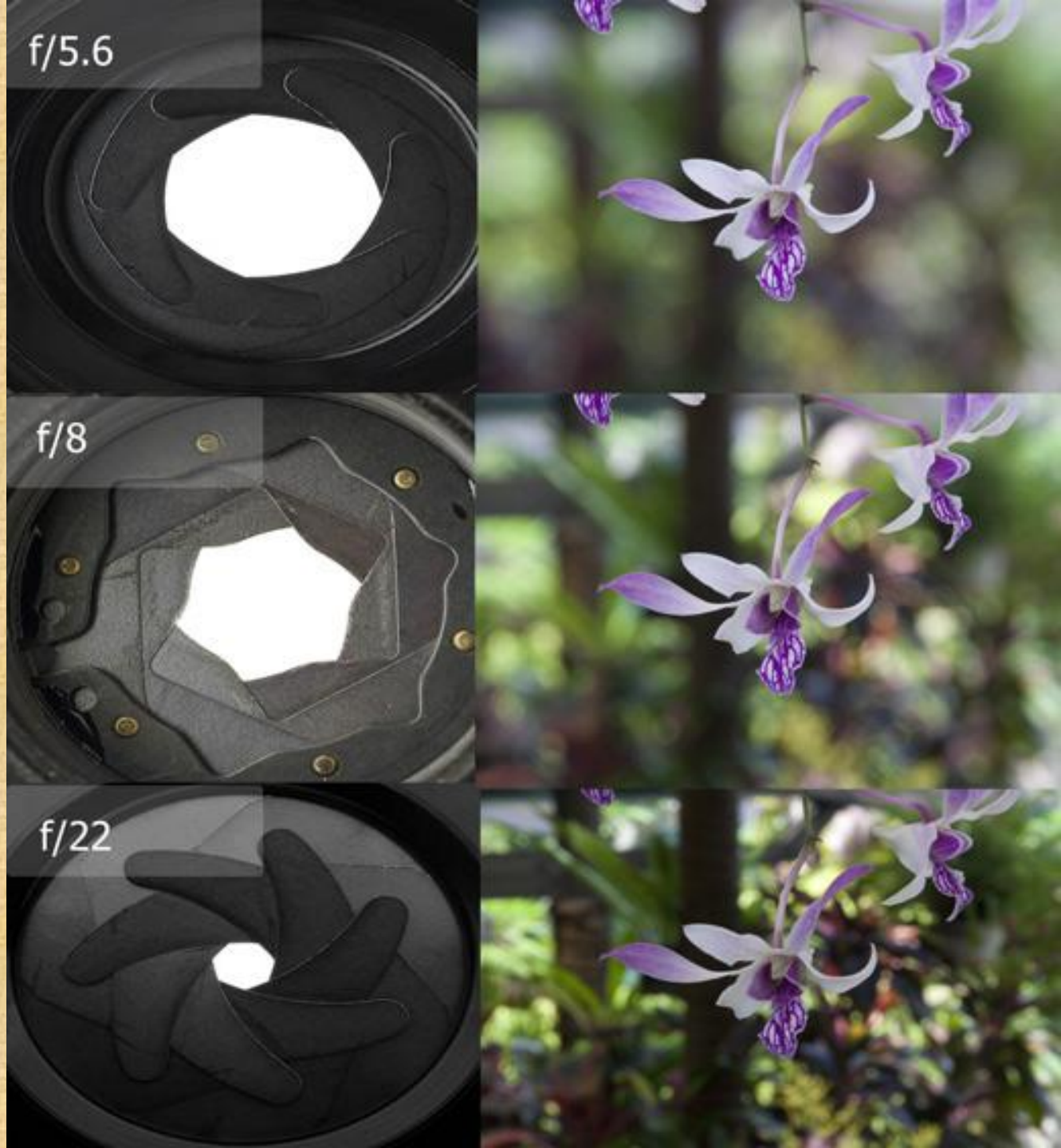
Aperture Priority Setting

- Nikon – Referred to as ‘A’ on the top of the body of the camera.
- Canon – Referred to as ‘Av’

Smaller Aperture = Greater DOF (Blurred background)

Less light hitting the cameras sensor and DOF is less

Smaller opening = Crisper photos but even less DOF



So what does the Aperture do?

- Controls the amount of light passing through the lens and onto the camera sensor.
- Allows better performance during low light situations.
  - Due to more light the camera's sensor is seeing.
- Controls Depth of Field (DOF).
  - Subject in Focus & Background blurred
- The smaller the F-stop number (or f/value), the larger the lens opening (aperture).
  - Smaller the Aperture=More light entering the sensor.
- Depth of Field is the distance wherein objects are in focus.
  - Separates the background from the foreground
  - Distance can increase or decrease DOF at the same F-stop.

DOF Example

DOF Example

DOF Example

What is Shutter Speed?

- Common term used to discuss **exposure time**, the effective length of time a camera's shutter is open. The total exposure is proportional to this exposure time, or duration of light reaching the film or image sensor.

Shutter Priority

- Nikon – Referred to as ‘S’ on the top of the body of the camera.
- Canon – Referred to as ‘Tv’

Shutter Speed

- Shutter speed is the unit of measurement which determines how long shutter remains open as the picture is taken.
- Expressed in seconds or fractions of a second. For example 2, 1, 1/2, 1/4, 1/8, 1/15, 1/30, 1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000
- Slower the shutter speed, the longer the exposure time.

How does shutter speed Work?

- Controls the *length of time* during which light can strike the film or sensor.
- Can effect crispness
- Can effect movement or blurring of a moving object.
- Can sometimes use slow shutter speed to your advantage.

Shutter Speed 20 sec, F/3.2, ISO 400

ISO

- International Organization for Standardization.
- Higher the number, the more sensitive to light the film is (Ex:200, 400, 800, 1000, etc.)
- The higher the ISO the more noise that is introduced into the image.

When to bump up ISO

- When shooting in Aperture Priority
  - When you have dialed down the lowest aperture (ex: f/2.8) then raise your ISO in small increments until shutter speed is at least around 1/60 of a second.
- When shooting in Shutter Priority
  - When the shooting high speed photography (ex: football game) and you still are not getting a well exposed image.

Let's Get

✓Aperture (F-stop)

✓Shutter Speed

✓ISO

Final Thoughts

- Practice, Practice, Practice
- There is no more film to worry about!
- Know your settings and be able to know when to use them to your advantage.
- Be able to thumb through the menu or external buttons without hesitation. You could miss a shot!

2014 Workshop Schedule

Tuesday, January 14th @ 6pm
Tuesday, April 8th @ 6pm
Tuesday, July 8th @ 6pm
Tuesday, July 15th @ 6pm (Fun Fest)
Tuesday, October 14th @ 6pm

All classes will be held at the Kingsport Public Library Auditorium

Picture Perfect Photography

The Art
The Style
The Passion

Brian and Whitney Castle
Owners and Photographers
Phone: 423.571.7519
www.thepictureperfectphotography.net