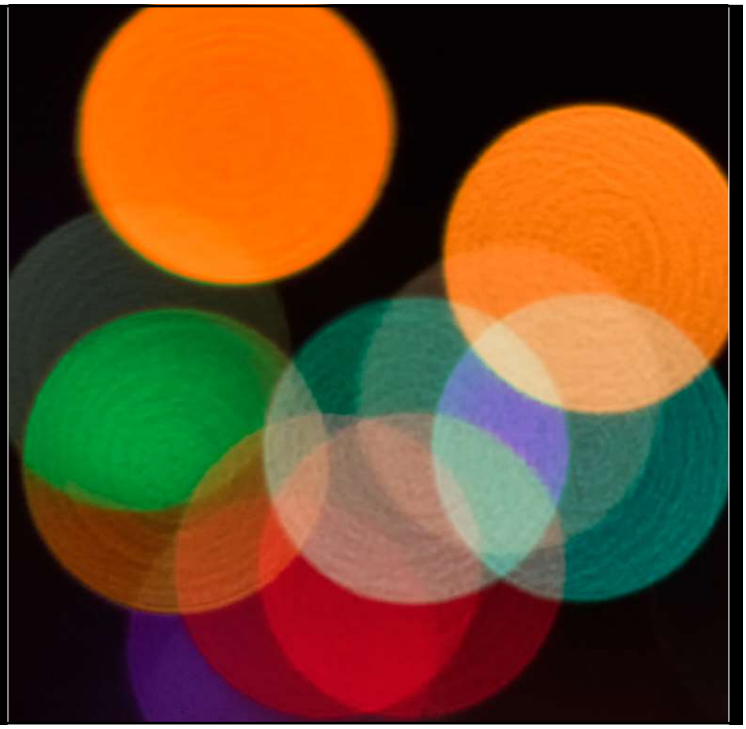
THE ENDLESS DEBATE ON DSLR & MIRRORLESS



Jamie Konarski Davidson

www.NewLifePhotos.com

ON DECK

DSLR or Mirrorless Systems

Sensor Size – What's the Big Deal?

- Full Frame, APS-C, Micro 4/3

Tracking My Gear

- Blending Systems - Making Transitions
- Advantages to Each

My Experience with Both – My Current Choices

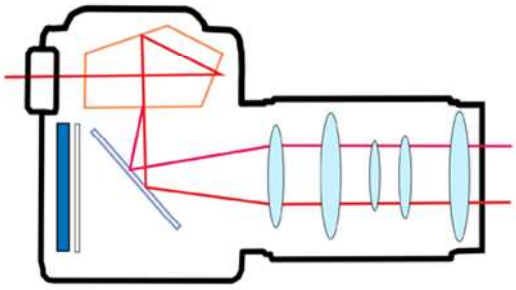
Questions to Ask

What's "best" for YOU?

FINAL ANSWER – IT DEPENDS

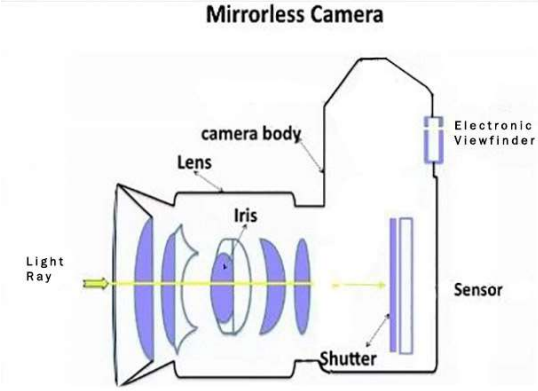
DSLR OR MIRRORLESS

DSLR – Camera has a reflex mirror inside, which bounces light up into the optical viewfinder.



DSLR OR MIRRORLESS

Mirrorless – No mirror. Light goes directly into camera onto the image sensor without detours.



DSLR OR MIRRORLESS

Size & Weight – Mirrorless is generally smaller & lighter, depending on lenses used. (Add "fast" lenses (f/2.8) or higher-end, ultra-long telephotos – still "heavy")

Viewfinders – Optical or Electronic (EVF)

- **Optical** – No delay in viewing & see scene and light as it is.
- **EVF** – Slight delay to activate and shows the same preview of the image you see on the LCD screen

DSLR OR MIRRORLESS

Focusing in General

DSLR – Fast speed when autofocusing or tracking (phase detection)

Mirrorless – Slightly slower with contrast detection

Active autofocus – shoots red beam on subject, bounces light back to camera, measures distance and instructs lens re focus.

Passive autofocus - must have light and image **contrast** in order to do its job. The image needs to have some detail in it that provides contrast.

DSLR OR MIRRORLESS

Autofocus – Phase, Contrast & Hybrid

Phase detection - Faster, but requires a more complex system to work accurately. (DSLR)

Contrast detection - Needs more time to work, but the mechanism is not as complicated since the information is taken from the electronic image of the scene. (Mirrorless)(landscapes, stills)

Hybrid AF – More common & takes advantage of both systems (action, video)

COMPARISONS – DSLR - MIRRORLESS

DSLR

- Optical Viewfinder (no delay)
- Traditional AF & tracking faster (gap closing)
- Many, many lenses available by main brand and third parties
- Generally, longer battery life

Mirrorless

- Electronic Viewfinder (EVF) (slight delay)
- AF – Contrast or Hybrid – Landscapes, still subjects better; improving for action
- Smaller, but growing collection of lenses from main brand and third parties
- Use older lenses with adapters
- Generally, shorter battery life

DSLR OR MIRRORLESS

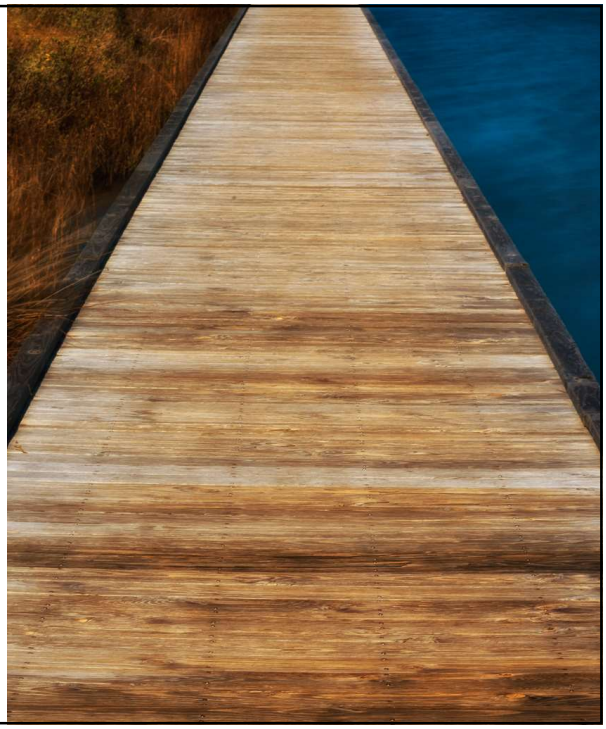
DSLR LENSES WITH MIRRORLESS SYSTEM

- Adapters DO WORK. "All In" is not required.
- Pay attention to FX and DX designations AND what happens if you mix.
- Accessories may need updating
- Pay attention to features you "need" or "want" BEFORE you buy.

DSLR OR MIRRORLESS

COOL FEATURES WITH MIRRORLESS

- Can see exposure changes, settings, histogram and more through the EVF as you shoot.
- What you see through EVF is what you get.
- Can use mirrorless & DSLR lenses
- Generally, lighter weight (with exceptions)
- Can connect via smartphone and transfer images from camera to phone w/o computer. (Also true for some DSLR cameras, not all)
- Faster and better for video



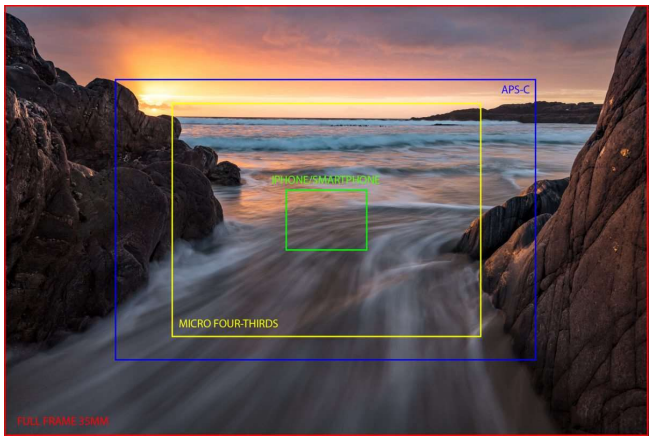
SENSOR SIZE

General Information

Full Frame – Negative size of a 35mm film camera – 3:2 aspect ratio. (36mm x 24mm)

APS-C – Smaller than negative – 3:2 aspect ratio (22.5mm x 15mm) Crop factor 1.5-1.6x

Micro 4/3 – Even smaller, 4:3 aspect ratio (18mm x 13.5mm) Crop factor of 2x

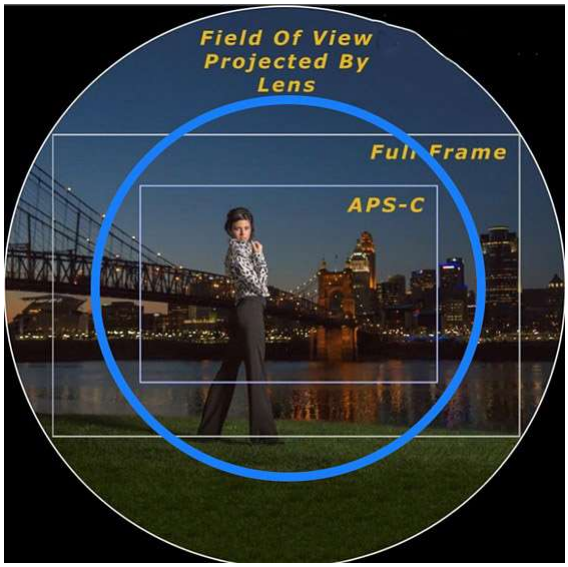


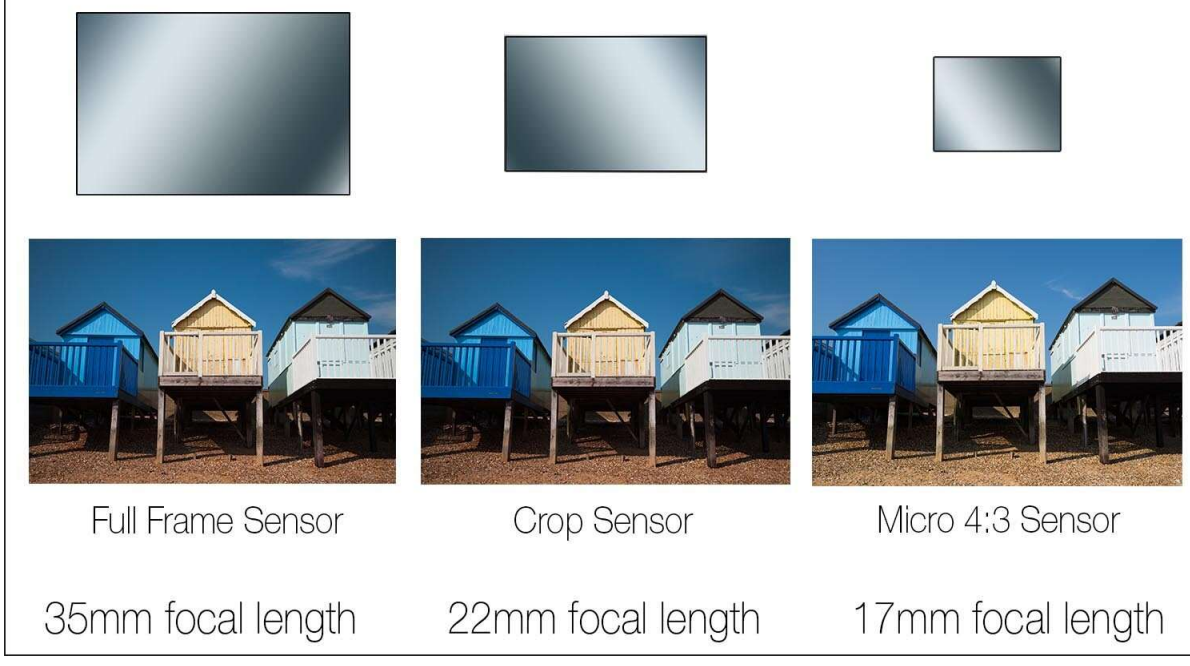
SENSOR SIZE

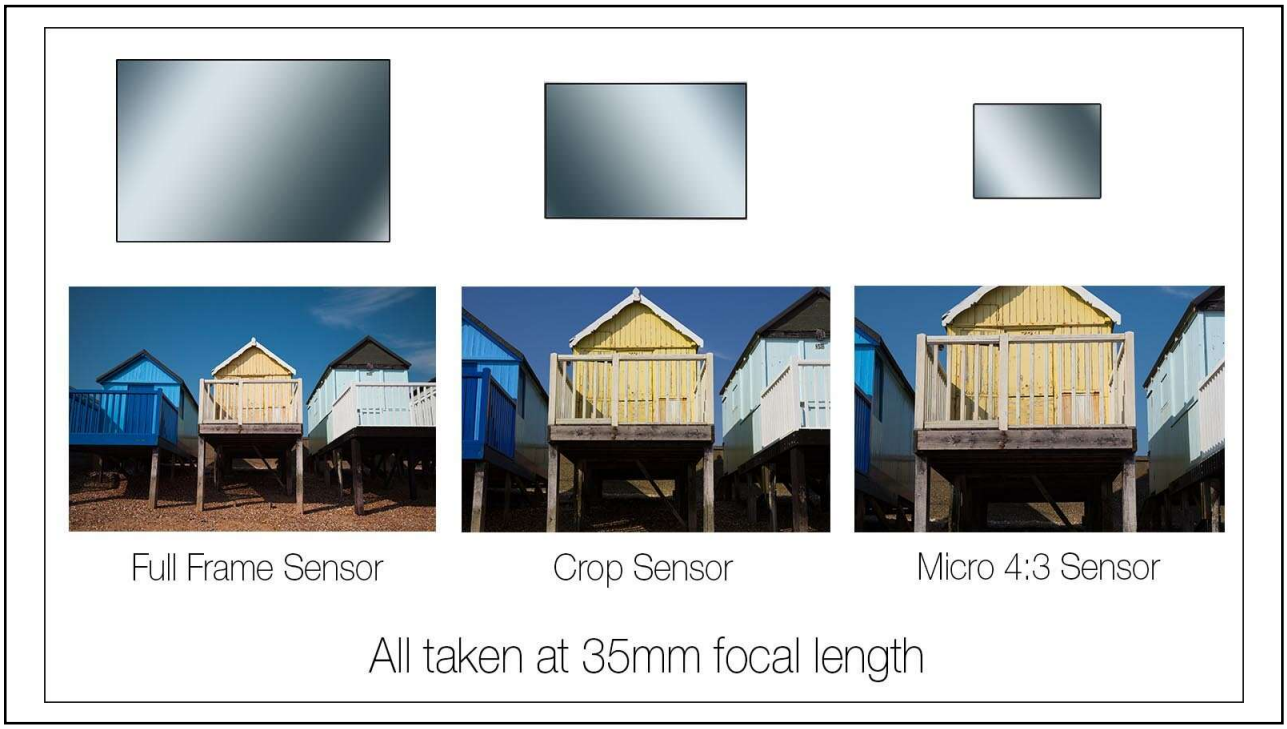
WHAT'S THE BIG DEAL?

- **Image Quality**
- **Resolution**
- **Dynamic Range**
- **Noise**
- **Angle of View | Magnification Factor**
- **Depth of Field**

Generally, larger sensor size has larger photo sites, better image quality & resolution (consider same megapixels on different sensor sizes)







COMPARISONS – FULL FRAME – CROP SENSORS

Full Frame

- Better image quality
- Better in low light
- Lower Noise
- Offers most flexibility

APS-C

- Smaller cameras (generally)
- Smaller angle of view, more reach – 1.5x
- Noise slightly higher

Micro 4/3

- Smaller, lighter cameras
- Even smaller angle of view, more reach – 2x
- More noise due to small sensor

DEPTH OF FIELD – FULL FRAME – CROP SENSORS

Micro 4/3 APS-C Full Frame (All at f/11) Source: digitalcameraworld.com

BOKEH – FULL FRAME – CROP SENSORS

Micro 4/3 APS-C Full Frame (All at f/11) Source: digitalcameraworld.com

TAKE-AWAY

•**Bigger sensors give shallower depth of field** because you use longer focal lengths to get the same angles of view.

•**Full frame sensors are great for shallow depth of field**, but can be difficult when you need as much depth of field as possible.

•**Smaller format lenses aren't so good for shallow depth of field**, but make it easier to achieve near-to-far sharpness.

•**An f/2 lens on Micro Four Thirds** will give depth of field equivalent to f/2.8 on an APS-C camera and f/4 on full frame.

•**If you want to match an f/2 lens on a full frame camera**, you would need an f/1.4 lens on APS-C and an f/1.0 lens on Micro Four Thirds.

Source: digitalcameraworld.com

TRACKING MY GEAR

Film Camera – Nikon F100 & N80 (1994 – 2005)

DELAYED ENTRY INTO DIGITAL

Nikon D2x (2005 – 2015) DX crop, 12mp

Nikon D90 (2011 – Present) DX crop, 12mp, IR

Nikon D800 (2017 – Present) FX, 36mp, IR

Nikon D600 (2015 - 2016) FX, 24mp, Color

Nikon D810 (2016 – Present) FX, 36mp, Color

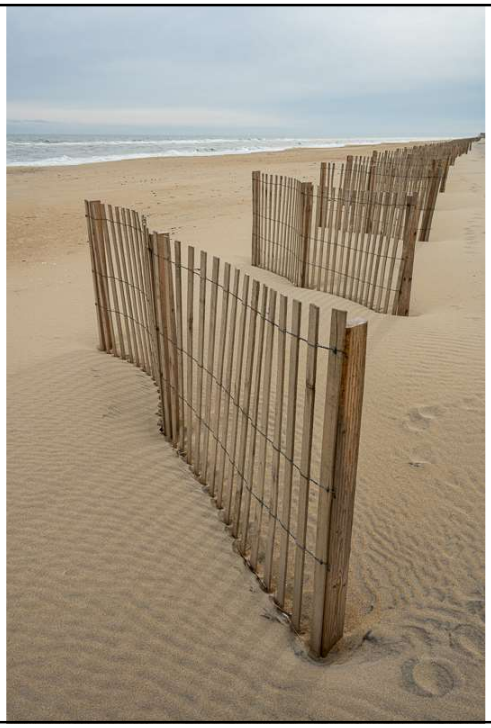
Canon RP (2018 – Present) FX, 26mp, IR

Nikon Z6 (Dec 2019 – Present) FX, 24mp, Color to IR

Nikon Z6II (Dec 2021 – Present) FX, 24mp, Color

SHARING THE EXPERIENCE

SLOW ADOPTER …BLOG POST
https://www.newlifephotos.com/blog/mirrorless-moments-captured/



QUESTIONS TO ASK

What do I like or want to shoot?

What do I have?

What do I need?

What features are most important to me?

What features are missing from my current gear?

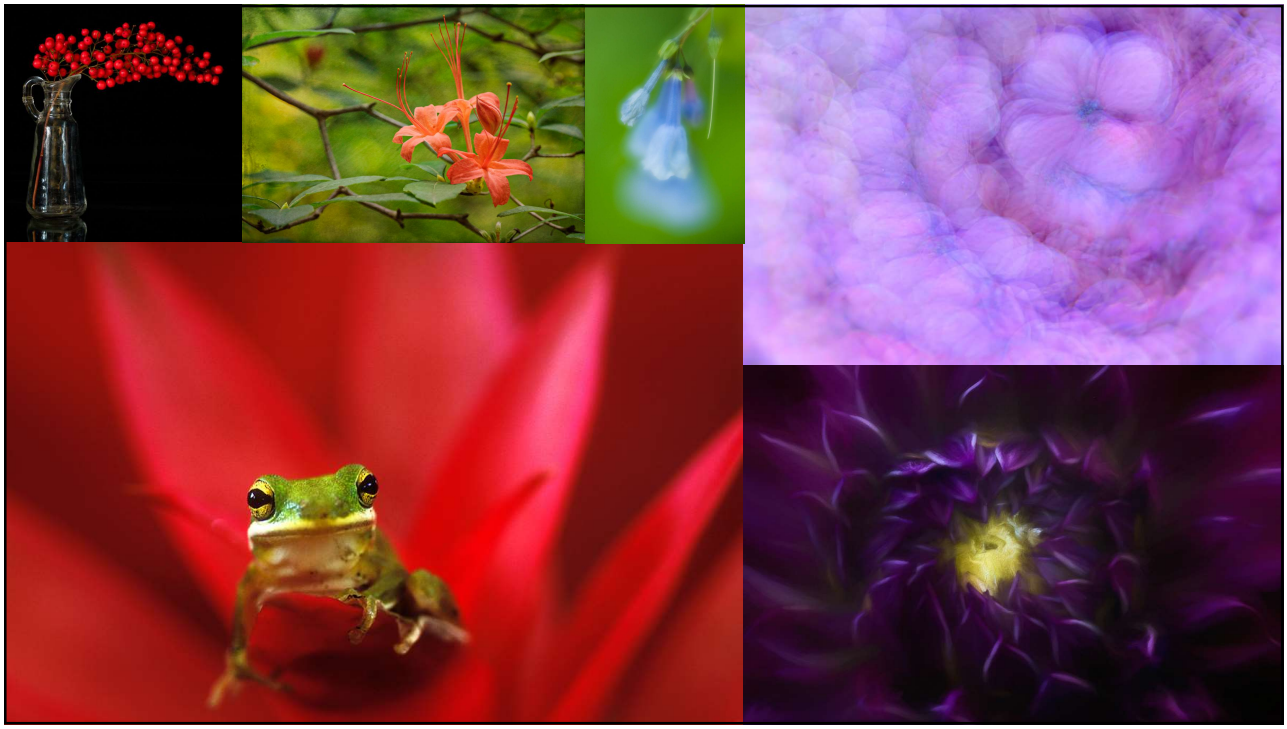
What is my motivation for new gear?

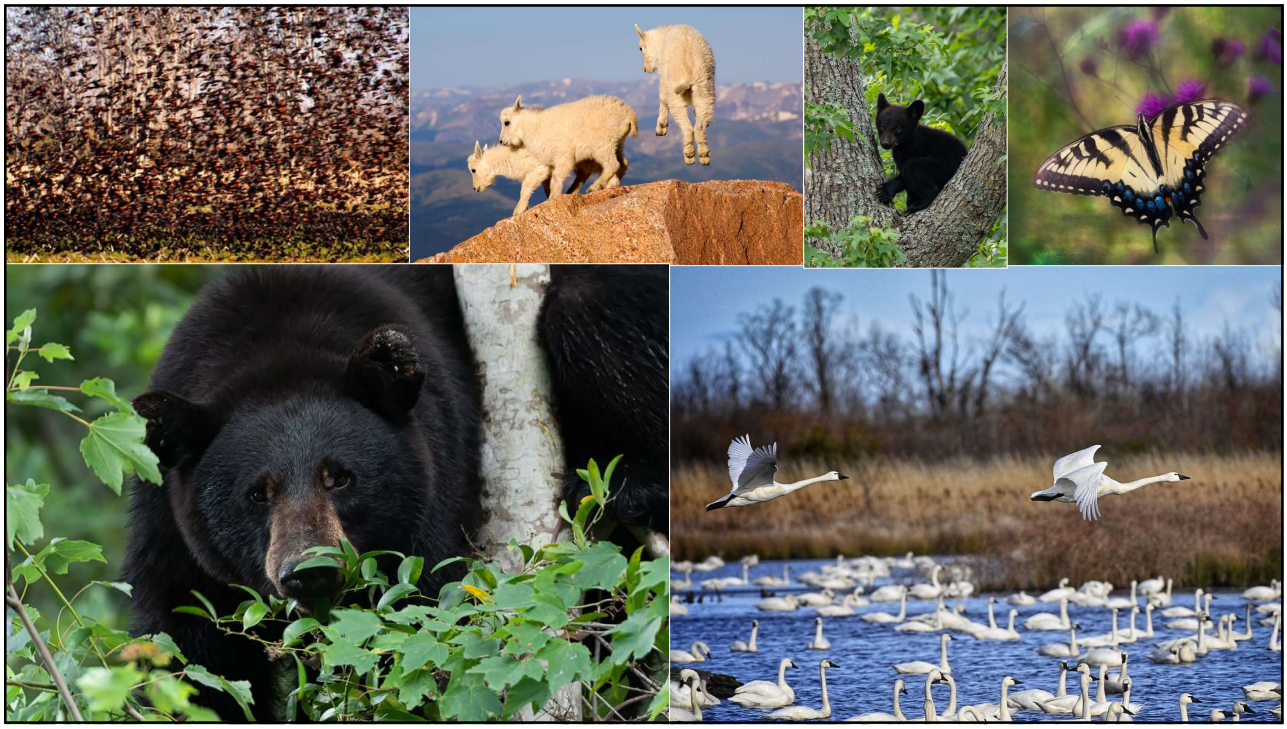
What lenses or accessories would I need?

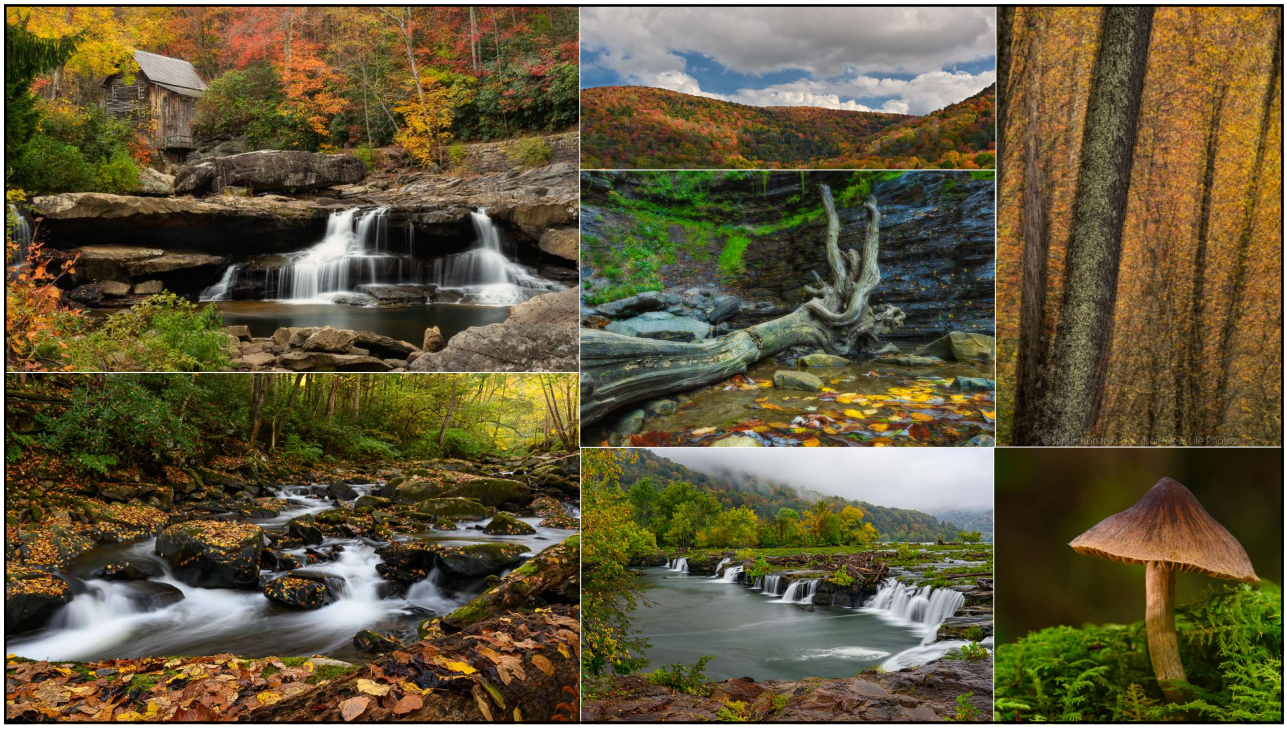
What is my budget?

Do I print or simply share online?

Do I want to print?





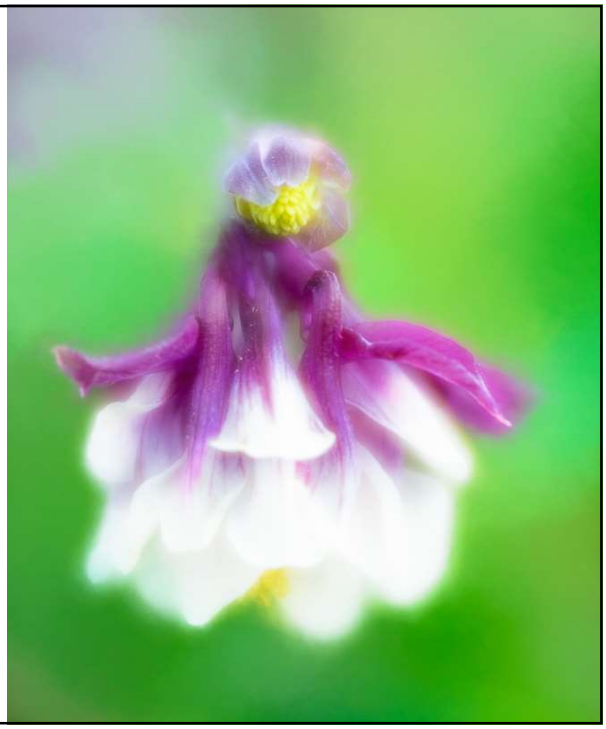


TECHNOLOGY CONTINUALLY EVOLVING

WANT? NEED?

CAN I WAIT?

IT DEPENDS …



ULTIMATELY, IT'S WHAT YOU PUT IN "THE BOX."

Consider thinking through what your needs are, why you feel you might want to upgrade or switch to mirrorless (and all the factors that are important to you).

Better gear will not make you a better photographer. Knowing your gear, learning techniques & practice will.

THANK YOU FOR YOUR TIME

Jamie Konarski Davidson | New Life Photos | www.newlifephotos.com