# INTRO TO DIGITAL PHOTOGRAPHY

**Ed Schwartz** 

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#### I got lucky

Taken in Katmai, Alaska in Halo Bay, 2006.

Nikon DSLR with 400mm Zoom and tripod.

35mm equivalent 600mm.

f/5.3, 1/125 sec, 270mm

Approx. 30 feet away



## Camera Options

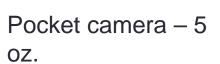
- Point and Shoot
  - Pocket camera
  - Easy to use
  - Inexpensive, low as \$200
- Mid-range
  - Larger zooms
  - Some have view finders
  - More expensive, \$300 to \$700
- DSLR
  - Consumer or Pro versions available
  - Heavier, faster, has quite a learning curve
  - Expensive, \$1000 to \$2000 for body and kit lens

## Choosing a Camera

- Good news
  - There are many options
- Bad news
  - There are too many options
- So what do you do
  - If inexperienced, start small. I've owned 15 to 20 cameras
  - Ask around and try as many cameras as you can
  - Be informed, do research before talking to salesperson
- Remember, DSLRs are great but 3-4 pounds around your neck gets old fast

## **Example Point & Shoot Cameras**







LUMIX POWER BY AVCHOLIES

Waist or Purse – 8 oz.

Neck Strap – wide zoom – 19 oz.

## Example Interchangeable Lens Cameras



Micro 4/3 or Mirrorless cameras – 20 oz.



Digital SLR - 4lbs

### **Other Cameras**





Tablets Phones

## Accessories



















#### Recent Trend

- Mirrorless or micro 4/3 cameras with interchangeable lenses. See article at <a href="http://edwardns.com/blog/what-are-micro-43-cameras">http://edwardns.com/blog/what-are-micro-43-cameras</a>
  - More compact and lighter then DSLRs
- Some have touch screens
- Examples
  - Sony NEX-5n (more aligned with Point-&-Shoot)
  - Panasonic G3 (more aligned with DSLR)
  - Olympus Pen series
  - Nikon 1

## Buying a camera

- Do your homework before you buy
- Places to review and check prices
  - www.dpreview.com or www.amazon.com
  - www.photographyblog.co.uk
- Places to buy
  - Bestbuy, has 15-day return with restocking fee
  - Samy's Camera, has 15-day return policy without restocking fee
  - Amazon, has 45 day return policy
  - WalMart or Target
  - Costco, has 90-day return
  - www.buydig.com, ask about return policy
- How to find camera review sites
  - On Google, enter "panasonic G3 review", for example
  - Select result of your choice

#### Features to look for

- Megapixels anything over 5 can print 8"X10"
- View finder becoming rarer but I like them
- Dedicated video button
- Histogram display
- Various aspect ratios, 4/3, 3/2, 16/9, 1/1
- Zoom range depends on your use
- Burst mode for sports, kids and wildlife
- Size and weight, general look and feel
- Video quality if it's important
- Response time
- RAW format if you have the knowledge and patience

## Zoom Range

- Low end should be 25 to 28 mm maximum
- 35 mm equivalent Zoom range depends on class of camera. See table below.

Camera class vs. actual Zoom range			
Class	35 mm Camera	Digital Camera	Micro 4/3 Camera
Equivalent Zoom	18-200 mm	27-300 mm	36-400 mm

## What is Magnification?

- Magnification is the amount that the object is magnified, obviously
- A 10X Zoom does not magnify by 10
- An 20mm to 200mm actually magnifies by 6 times at the farthest zoom
- A 30mm to 300mm magnifies by 9 times
- See the article at <a href="http://bit.ly/cameramag">http://bit.ly/cameramag</a>
- To compute the magnification, multiply and largest focal length by 1.5
  to get the 33mm equivalent and divide by 50mm which is equivalent
  to the human eye.

## Magic Triangle

- Shutter speed
  - Length of time shutter is open
  - Smaller openings capture action let in less light
- Aperture
  - Lens opening larger number (f/11) is smaller
  - Small opening equals large depth of field
- ISO
  - Sensitivity
  - Higher settings improve low light performance but can be noisy

## Key skills

- Setting up your camera
- Understanding your camera
  - Focusing, when to use flash, etc
- Transferring photos to PC
- Organizing and editing photos
- Presenting photos
  - Prints, slideshows, email, online, albums
- Which software to use
- Printing
- Knowing how to use Microsoft Windows would help
- Video and audio editing eventually

# Techniques can help





Inside OK



Outside OK

All OK

# Key hardware

- External hard drive
- Flash drive
- Memory card reader
- Camera





#### Software choices

- Picasa (free)
- Windows Live Photo Gallery (free)
- Photoshop Elements (\$49 to \$79)
- Adobe Photoshop Lightroom (\$299)
- And many more

## Final Tips

- Take a lot of photos
- Zoom in frequently with your feet
- Use flash during the day for backlit subjects
- Compose photo carefully (background, horizon)
- Use Auto mode until familiar with camera
- Read the manual
- Get Electronic version of manual online
- For a list of cameras supported by Adobe RAW go to <a href="http://adobe.ly/rawsupport">http://adobe.ly/rawsupport</a>