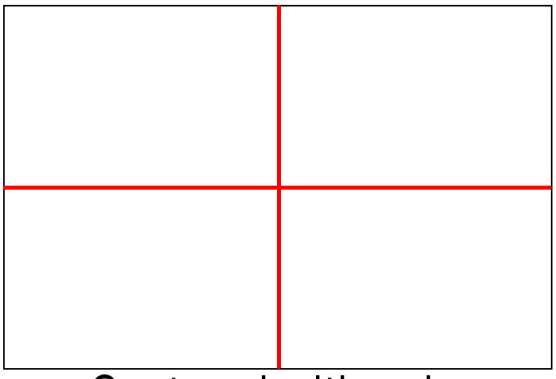
DIGITAL PHOTOGRAPHY INTRO

Week #2 of 4 Camera Shooting Modes and Composition

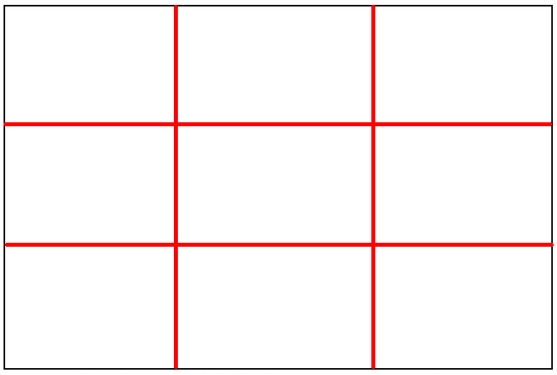
Comparing images

Art versus snapshot

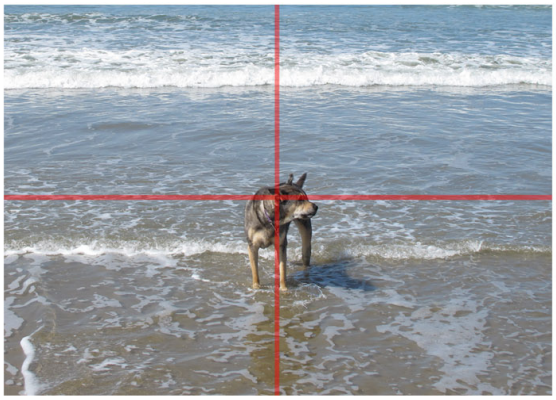
Composition: Rule of thirds, divide from into thirds horizontally and vertically. Put primary subjects at the intersection of those lines. Try to not always put main subject in exact center of frame. Try to not put horizon in exact center of frame.



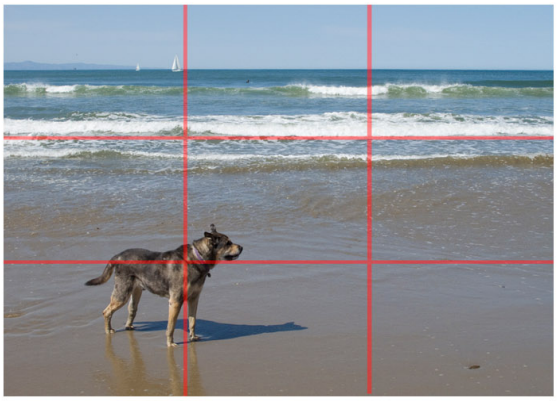
Centered with only one intersection point



Using thirds we get four intersection Points



A rather simple image face at center point



A more “dynamic” image. Subject at one of the “thirds”.

Autofocus

Focus point, selectable on some cameras. Many cameras are set to “guess” the correct subject, others only have one fixed center point. Your main subject must be on an active focus point when the shutter is first pushed (or half pushed) for the photo to be sharp.

Focus modes, different uses for continuous autofocus (fast moving subjects), single autofocus (slow moving subjects) and manual focus.

Timing and the half pressed shutter button: Allows faster shots and moving the focus point. Aim focus point at main subject, half press the shutter, hold (do not release) shutter button, reframe and/or wait for “perfect moment”, depress shutter button fully down.

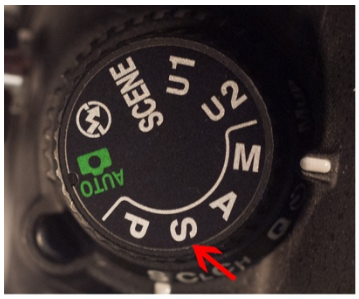
Shutter priority mode (“S” mode – Tv mode on Canon)

Use when speed is the more important part of your photograph. With “S mode” you select the shutter speed you want and the camera finds a correct f/stop to control exposure.

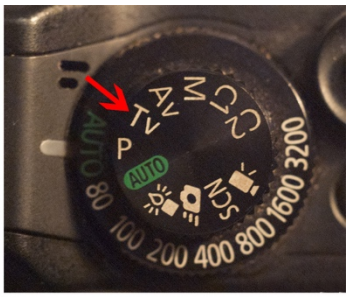
Faster shutter speeds (1/500 for example) freeze motion. This gives a very sharp, but sometimes lifeless, image.

Slower shutter speeds (1/30 for example) gives “motion blur” with fast moving subjects. This gives a less sharp, but often more dramatic” image.

If you don’t have “S mode” on your camera, try using a “sports” or “portrait” mode for the “faster shutter speed” and a “landscape” mode for the “slower shutter speed”.



Typical
S = Shutter Mode



Canon
Tv = Shutter Mode

Typical
A = Aperture Mode

Canon
Av = Aperture Mode

Aperture priority mode (“A” mode – Av mode on Canon): Limited use with smaller cameras.

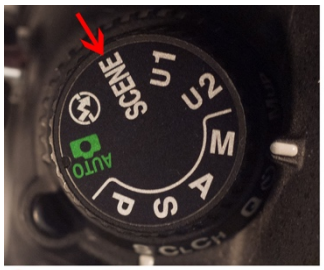
Use when depth of focus is the more important part of your photograph. Depth of focus (aka depth of field) is the distance in front of and beyond the main focus point that still “appears” to be acceptably sharp. Sometimes a large depth of focus is desirable, sometimes it is not. With “A mode” you select the f/stop you want and the camera finds a correct shutter speed to control exposure.

F/stops control depth of focus. The lower the number a f/stop has, the wider the opening in the lens. The lower numbered (wide) f/stops (f/2.8 for example) have narrow depth of focus. Parts of your image in front or behind the main focus point will be “soft”. Very handy for isolating a subject or blurring a distracting background. The higher numbered (small) f/stops (f/8 for example) have great depth of focus. Parts of your image in front or behind the main focus point will be very sharp.

Depth of focus varies most with larger sensors, longer lenses and wide f/stops. Less expensive cameras typically have small sensors and a shorter telephoto range and smaller maximum f/stops. These cameras always have significant depth of focus. The value of “A mode” is quite limited with these cameras.

With “Prosumer” type cameras you typically get faster maximum f/stops and longer telephoto range (but not a larger sensor). The value of “A mode” is of moderate value with these cameras.

With pro style “DSLR cameras you do have a larger sensor and can use fast maximum f/stop lenses of long length. The value of “A mode” is great with these cameras.



Scene Mode
Two step selection

Scene Mode
Direct Selection

Named Scene Modes

Used to give more feedback to camera about "what" you are shooting.

Names and properties vary from camera to camera. Typically;

"sports" gives high shutter speed, wide aperture and allows high ISO

"portrait" gives very wide aperture (narrow depth of field) and softer colors

"landscape" gives small aperture (large depth of field) and allows slow shutter speeds

"night" forces slow shutter speeds

Please remember that your named modes MAY VARY from the descriptions above!

Image editing software part 2 (cropping and levels)

room 10A: username photo password photo123

For many photographers, the computer has replaced the “photo lab” and is now the “2nd half” of the digital camera.

Cropping allows you to “zoom in” on an interesting part of your file or “reshape” your file for a specific paper shape.

1) Launch Photoshop Elements 14, if needed.
2) Select "Photo Editor”.
3) Open image 2-5-crop.jpg (File > Open). You will see image on your screen.
4) Make sure you are “Edit Full” rather than “Edit Quick” mode (Elements specific command, in upper right of screen).
5) Select crop tool from the tool bar (far left side of screen).
6) Select an “Aspect ratio” if desired. Make sure to set your resolution to 96 for email or 240 for inkjet prints. Common print sized, including 4x6, 5x7 and 8x10 are available. You can also select “No Restriction” for “free form” crop.
7) You can, optionally, modify the crop by dragging any side handle. You can, optionally, move the crop left-right or up-down by click-dragging from within the crop. You can, optionally, rotate the crop by hovering the curser near a corner point until it turns into to a curved symbol. Rotate is very useful for fixing uneven horizons or tilting images.
8) Once you have the crop “perfect”, hit the return key. If you decide to “start over” rather than keep your crop, just hit the “escape” key rather than the return key.
9) Save your newly cropped (smaller) file as a new file/name (File > Save As) to a location on your hard drive (not your camera’s memory card). Chose file type as TIFF (if possible). Click “OK”. Without this step you would “over-write” your existing file, which would permanently reduce file size.
10) If you don’t have TIFF available, use JPEG. In the next window chose Quality “10” if you are going to burn and deliver a disk to a retail store/lab or print to your home inkjet. Chose Quality “8” if you are going to email the file to a printer/lab. Click “OK”. Without this step you would “over-write” your existing file, which would permanently reduce your file size.

Levels allow you to brighten or darken an image. It also allows you to set a white & black point.

Manual Levels (best method)

1) Launch Photoshop Elements, if needed.
2) Select "Photo Editor", if needed.
3) Open image 2-6-levels.jpg (File>Open). You will see image on your screen.
4) Make sure you are “Edit Full” rather than “Edit Quick” mode (Elements specific command, in upper right of screen).
5) Select Enhance>Adjust Lighting>Levels.
6) Move the white slider under the histogram until the whites/hightlights are to your liking. Hint: if you hold down the option key (Mac) or the alt Key (PC) while moving the slider you can see if anything is “clipped/pure white”.
7) Move the black slider under the histogram until the blacks/shadows are to your liking. Hint: if you hold down the option key (Mac) or the alt Key (PC) while moving the slider you can see if anything is “clipped/pure black”.
8) Move the center gray slider under the histogram until the mid tone brightness is to your liking.
9) Hit “OK”.
10) Save your new file as a new file/name (File > Save As) to a location on your hard drive (not your camera’s memory card). Chose file type as TIFF (if possible). Click “OK”. Without this step you would “over-write” your existing original file.
11) If you don’t have TIFF available, use JPEG. In the next window chose Quality “10” if you are going to burn and deliver a disk to a retail store/lab or print to your home inkjet. Chose Quality “8” if you are going to email the file to a printer/lab. Click “OK”. Without this step you would “over-write” your original file.
12) Repeat above with image 2-7-levels.jpg

Auto Levels (quick and easy, but very little control)

1) Launch Photoshop Elements, if needed.
2) Select "Photo Editor”, if needed.
3) Open image 2-6-levels.jpg (File>Open). You will see image on your screen.
4) Make sure you are “Edit Quick” rather then “Edit Full” mode (Elements specific command, in upper right of screen).
5) There is a “lighting” pallet on the right hand side. Hit the “Auto” button next to the work “levels”
6) If you like the results save your new file as a new file/name (File>Save As) to a location on your hard drive (not your camera’s memory card).
7) If you don’t like the results (rather likely, auto gives very little control) hit the reset button above the image. Put yourself back in “Full Edit” mode (upper left of screen) and follow the instruction above for “Manual Levels”.

JPG compression level (in camera “Quality”)

More compression gives smaller file, but also does more damage (creates unwanted artifacts). Set both in your camera and in your image editing program

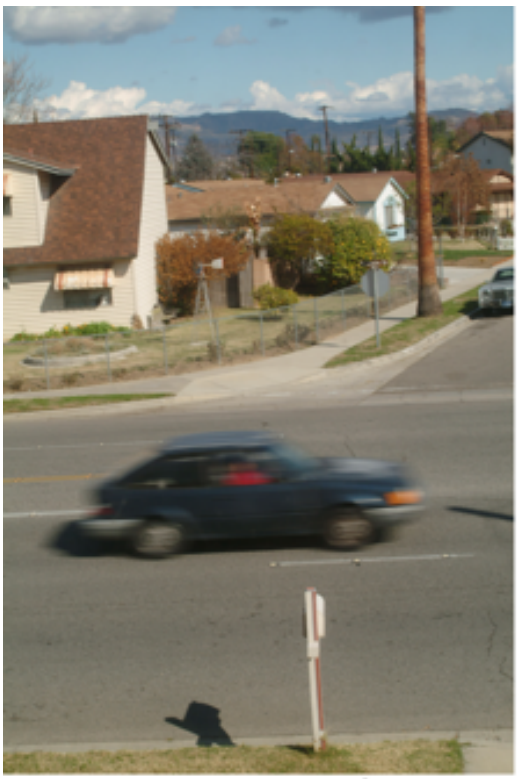
HOMEWORK (in three parts, 4 prints)

Part One (Camera and menu items):

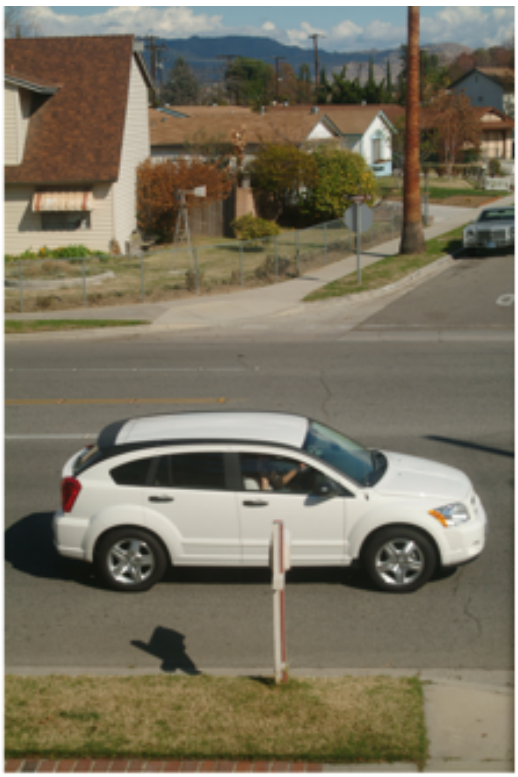
1) ***Know where your camera autofocus modes are and how to switch between focus auto select and fixed targets (read manual)***

Part Two (Shutter speeds):

1) ***Use a slow ISO (100 or 200)***
2) ***Use your camera's "Shutter Priority" mode (aka "S" or "Tv" mode)***
3) ***Pick a FAST moving object such as a car, bike, animal or a fast kid***
4) ***Shoot your subject as stop motion (1/1000 to 1/125 shutter)***
5) ***Shoot your subject as motion blur (1/15 to 1/60 shutter)***
   Note: if you are using a compact camera, you will need shoot the above motion blur image in shade or evening light, not direct sunlight.
6) ***Download the files to your computer***
7) ***Resize the files to your choice of print size***
8) ***Optional: use Photoshop Elements & levels adjustments to make the images look their best.***
9) ***Print images and bring them to class***



Motion Blur
1/30 Second



Stop Motion
1/750 Second

Note: If your camera doesn't have a "Shutter priority" mode, try using a "sports" or "portrait" mode for the stop motion and a "landscape" mode for the motion blur. This will work on some (not all) camera models.

Part Three (rules of thirds):

1) Find an interesting subject and background.

2) Shoot the subject "dead center" in the frame.

3) Re-arrange your composition so that you place the subject at the intersection of the "rule of thirds" lines.

4) Bring both prints to class (4 prints total).

Centered with only one intersection point

Using Rule of Thirds

Aperture and Depth of Focus
(optional for point and shoot cameras)

1) *You will see far more interesting results with a large sensor camera.*
2) *Use a slow ISO (100 or 200).*
3) *Use your camera's "Aperture Priority" mode (aka "A or Av mode")*
4) *Set your zoom between 150mm and 250mm (35mm equivalent)*
5) *Shoot a CLOSE object/person and a DISTANT background 2 ways*
    a. *Shallow depth of field (typical setting F/2.8 to F/4)*
    b. *Large depth of field (typical setting F/8 to F/22)*
6) *If your camera doesn't have an "A mode", try using a "landscape" mode for the large DOF and a "portrait" or "sports" mode for the shallow DOF.*
7) *This exercise is best shot outdoors or with a tripod.*
8) *Download the files to your computer.*
9) *Resize the files to your choice of print size.*
10) *Optional: Use Elements & levels adjustments to make the images look their best.*
11) *Print Images*
12) *Bring prints to class*

Shallow DOF F/4

Large DOF F/11

NOTE: Optional: If you have an external (hot shoe) flash for your camera, then bring it along for next week's class.