

DESN 350 Digital Imaging and Photography - Summer 2017

Week1 Part1 - Reading

Complete Digital Photography Ch 1, 2 & 3.

Assignments

Bring your camera with you to class these next few days as we discuss camera operation. It is also a great idea to bring your **camera manual!**

Due this Wednesday

1) Take pictures featuring **texture** as the main subject and turn in your **favorite four**. Common images might be of cloth, or moss, or leaves collecting beneath a tree, or intersecting branches. **The most desired texture images, however, are of unexpected or interacting elements that are not noticed ordinarily.** Try to find elements that people don't usually observe closely, like the surface of a leaf, or textures that occur because of the interaction of two otherwise independent elements that are not usually observed together, like crisscrossing tire tracks, or shadows of a window blind falling across a carpet pattern. **Check them out with Photoshop's Histogram tool to make certain there is no significant clipping of highlights or shadows.**

Include at least **two different types of subjects**.

And include at least one picture **1a** of **urban** and **natural** elements **meeting**. For instance moss springing out of cracks in concrete. Or a robin's nest in a metal fence. Or a butterfly on a rusty rail. This gives your picture a little story or "narrative" that can make it more interesting.

2) Submit **four** of your best images **featuring lines as the dominant element**. Use Photoshop to add a **caption** on or below each image explaining the role played by lines in the image, including **2a** perspective, **2b** leading lines, and **2c** implied line. **2d** is your choice.

How to turn in assignments

- 1) Notice the assignment number: 1, 1a, 2, 2a etc.
- 2) Name each by week, assignment, number, revision, your name, as in this exmple:
w1a2br1jbraukmann.jpg
- 3) Complete any assigned editing. Use Image > Size to create a version with the **longest size between 1000 and 1500 pixels**, and the **resolution 72 dpi**.
- 4) Add a watermark (Your name at 15% opacity).
- 5) Save as **JPEG** with compression about 8.

6) Turning it in: Upload to web site in your folder
Host: **www.drbraukmann.com**
Username: **stus2** Password: **(in class)**
Use Fetch on our Macs, or install Filezilla or a similar FTP client on Macs or PCs. Students can download a free version of either for use at home.

7) Also pick three of your best images on the due day, and set up a slide show on your computer. Then look at everyone's images, and vote for your favorites. Extra credit awarded.

Study Questions from class discussions

What two basic technical requirements must be met for a good picture?

What contributes to proper exposure?

What are advantages of a fast shutter speed? Of a slow shutter speed?

What is ISO on a digital camera?

What is selective focus (also called "limited depth of field")?

How will your performance change when setting your digital camera to a higher ISO?

What is the advantage of looking at your images in black and white?

How long do you have copyrights to your image?

What are three ways to mark your images to make them less tempting to steal?

What are the advantages of Digimarc to other safeguarding methods?

Ch 1 Eyes Brains Lights and Images pp 3-10

In Figure 1.3, what are the primary additive colors?

What color is created with 100% of Red Green and Blue?

What are the secondary primary colors?

What color cast does an incandescent light have?

How much of what you "see" with your eyes is actually generated by your brain? 80%

What is "dynamic range" in an image, or an image-making device?

What is the term used to signify a doubling of the amount of light?

What is the dynamic range of an eye?

What is the dynamic range of an eye *looking at a particular scene*?

What is the dynamic range of a digital camera looking at the same scene?

What dynamic range can a digital camera actually capture in an image?

Summary question: Using only very approximate numbers, compare the dynamic range of eyes to the dynamic range of digital cameras to the dynamic range of a printed image.

Summary question: How does the dynamic range discussion above affect the way you take pictures?

Ch2 Getting to Know Your Camera pp 13-34

What are two fundamental differences between an SLR and a point-and-shoot or phone camera?

What would be the change if you went from a focal length of 50 to 200?

Why should you sometimes press your shutter button only $\frac{1}{2}$ way and pause?

Why should you “squeeze off a shot” rather than press the shutter button firmly?

What telltale characteristics does an underexposed image have? Try to be specific and technical with your answer.

What telltale characteristics does an overexposed image have? Try to be specific and technical in your answer.

What are the three mechanisms for controlling overall exposure?

If your shutter speed indicator shows “100,” what does that mean?

What should you worry about if your shutter speed is on the low side, say $1/50$ of a second?

What does your camera do for you in *Portrait* mode?

What does your camera do for you in *Landscape* mode?

What does your camera do for you in *Snow* mode?

What does your camera do for you in *Sports* mode?

What does your camera do for you in *Night Portrait* mode?

Why is “fill the frame” good advice?

Why is “lead your subject” good advice?

Why is “your knees bend” good to remember?

Why is “backlighting” a problem?

What does it mean to “work” a subject?

Ch 3 Camera Anatomy pp 36-72

Which is better to use for judging *focus*: LCD or Viewfinder?

Does a *stabilized focusing* (an “image stabilizer”) system replace the need for a tripod?

What the benefit of a *digital zoom*?

What is meant by these lens terms: *telephoto*, *wide-angle*, *prime*?

What options does *drive mode* give you?

Why is it logical, for instance, that a 10 megapixel camera would have a *resolution* of 3648px by 2736px?

What is the top reason for using *JPEG*, and the top reason not to use it?

Should you generally use the highest-quality (lowest compression) option on your camera?

Which is smaller: a *RAW* or a *TIFF* image?

Think about this: Why might adjusting the *contrast parameter* affect the *dynamic range* of your camera?

What is *aspect ratio*?

Why should you cradle your camera with one hand while operating the controls with the other?

Where should your elbows be when holding a camera to shoot an image?

Why are faster memory cards sometimes a big advantage for a photographer?