# Improve Your Photography

#### Instructor: Roger Buchanan

#### Notes: www.thenerdworks.com

Do we communicate visually?

Images were not always as common as they are today. We need a Photo Literate Culture.

How are images used?

- Learning
- Enjoyment
- Motivating

Understanding Visual Communication...3 Contributing Factors:

- 1. The scene itself;
- 2. The photographers technique;
- 3. The viewer of the photograph.

Roland Barthes - the idea of "Studium" and "Punctum".

We communicate visually by using Signs. 3 Types of Signs & how they represent their meaning:

- 1. Icon: Resembles
- 2. Index: Implies
- 3. Symbol: Learned (arbitrary)

To understand a sign, we must understand what it is NOT.

How do we engage with photos?

- Deep Time
- Cyber-Time

Images often require an investment of time to understand.

Captions: the use of Words

- Help us understand;
- Enhance the meaning;
- Make us laugh.

Images require us to see how the camera sees.

Hand held captures require a fast enough shutter speed to avoid blur.

Perception of Colours...? We don't see colours the way a camera sees colours!

How the Camera captures the image, via Aperture-Shutter Speed-ISO.

Confirm the exposure via...

- Zoom to review image on the Camera LCD
- Histogram Review

CameraSim Pro for practice... <u>www.camerasim.com</u> How a camera records what it sees.

- jpeg from camera
- RAW processed by photographer

The Five Essences of a Photograph when shooting - John Szarkowski Director MoMA.

- 1. The Thing
- 2. The Detail
- 3. The Frame
- 4. Time
- 5. Viewpoint

Pictures can have "Double Meaning";

- Old Woman with Broom "Visual Meaning" or Witch "Symbolic Meaning" Visual Meaning can have many physical Zones:
  - World Wide Meaning (i.e. 9/11 attack)
  - Provincial Meaning (i.e. Golden Boy)
  - Personal Meaning (i.e. my first "girlfriend crush")

Learn how to use Light!

- Light can be Hard;
- Light can be Coloured;
- Light can be Added;

- Light can be Soft;
- Light can be Directed;
- Light can be Diffused.

Photographs can have density, not in meaning, but in detail per square inch.

"The power of authentication exceeds the power of representation" – Roland Barthes.

An image must be assessed in its contextual entirety.

"There is a terrible truthfulness about photography. It is too true to be Juliet."

– George Bernard Shaw 1909

Selective Cropping defies context.

"Viewer Prejudice" comes in many forms:

- Subject i.e. Flowers
- Genre Sports Photography, Portraits
- Composition Landscape or Portrait
- Technique Shallow Depth of Focus
- Concept Promotional Photography
- Print Glossy or Matte
- Colour B&W, Saturated, Sepia etc...
- Captions (Word prejudice).

The ratio of the creation of a photograph to the life span of a fine art print is approximately: 1/250th of a second : 150yrs

Representing Reality: Paintings are creations, a photograph is a record from an event.

Paintings are often imitated by Photographers.

How will people see your Image? Descriptive or Contemplative?

What do we learn from an Image? Hit or Strike? Landing or Take-off?

Photos can show an Action or the Effect of an Action: -Hitting the Ball (action); -Cheering the Hit (effect) Photos are stated facts, not learned experiences.

Photos Transcend their Photographers, Painters Transcend their Paintings.

### **Summary:**

- We communicate using images;
- Signs play a big role;
- Meaning takes time, sometimes Words;
- Learn to See as your camera Sees;
- Track "The 5 Essences" of your Image;
- Photos are Statements extracted from Context, not stories themselves...

The slideshow from this presentation is available for download at www.thenerdworks.com

## Improve Your Photography Table of Contents

	Page Number
1. Slideshow from presentation;	2
2. Handout sample from various activities;	87
3. JPEG vs RAW processing sample;	88
4. Comparing Photograph of Scene vs Painting of Scene;	89
5. Handout Notes from Presentation	90



Thinking about photography to help improve your photography class!



My name is Roger Buchanan, I do all of the photography classes for the leisure guide to the city of Winnipeg.

You can find these notes online at www.thenerdworks.com, this is the website where you can also send me an e-mail with your questions.



This presentation has four parts: the slideshow, some activities, a demonstration of some camera equipment, and a discussion.



We all know that we communicate with language, and we communicate with the written word, but do we communicate visually with images?

## Do we communicate visually?



Yes we do!



We really do.



And I'm not writing this just to have fun!



Images were not always common as they are today. Back in the late 1800s the New York Times rarely had any images at all. But in the New York Times of 2016 the front page was covered with images.

## We need a Photo Literate Culture



And with a tremendous prevalence of images in our culture we need to be photo literate.



One of the ways that we become literate with photos is we learn how images are used. One of the ways that images are used is in learning. The images record details, illustrate concepts, show things in action.



Another way that images are used is to motivate behavior. This is the fundamental basis for all advertising media.



Lastly, but not least, we use images for enjoyment. They become our visual memories.



So just how are we able to communicate visually?

3 Contributing Factors...
● The scene itself;
● The photographers technique;
● The viewer of the photograph.



To understand how we communicate visually we need to start off with three contributing factors that help provide meaning in an image.

They are: the scene itself; the photographer's technique; the viewer of the photograph. Of these three things the photographer can only really control the technique that they use when they make the image.



This image demonstrates what the French philosopher Roland Barthes thought contributed meaning to an image. This picture was taken in Nicaragua during the Revolutionary war.

Roland Barthes saw that an image could be made up of two things "Studium" and "Punctum". The main part of this image, the debris in the background and soldiers in the foreground represents what Barthes refers to as Studium, the body of the image. However, in this image you can also see two Nuns walking from the left side of the photograph to the right side of the photograph. They represent what Barthes referred to as Punctum, the part of the photo that grabs your attention. The Nuns are the unique part of the image that grabs your attention and makes you pause and think.

If you think of a photograph as a joke, the Studium is the setup, and the Punctum is the punchline.



Photos can become iconic in that they are universally attached to an event or a time.



Every Canadian hockey fan knows when "Henderson has scored for Canada"



Another way that we communicate visually is by the use of signs. The study of the use of signs is a subject called semiotics. We will cover just the basic concepts.



Images can convey their meaning through the use of signs. The first of these signs is the icon. An icon resembles what it represents. Here we see the outline of a fire extinguisher representing a fire extinguisher.



The second type of sign is the index. The index implies what it represents. It's the classic case of "where there's smoke there's fire". The use of the index type of sign is very common in photographs.



The last type of sign is the symbol. The symbol is a sign that is arbitrary but that we have learned together. The stop sign is an example of just such a symbol. Another example would be the scales that represent justice. By paying careful attention to how a photographer uses an icon, an index or a symbol, that photographer can make some very powerful photographs.



However, it is important to note that we must understand what a sign is not. A sign is not what it represents. This picture of a pipe is not an actual pipe. You cannot take this pipe in your hand and smoke it! It is important to note that photographs represent subjects, and that they are not in fact the subject.



Another important factor to consider in the meaning of photographs is the amount of time that we spend engaged with the photograph. This is a picture of the roses at St. Paul's Cathedral in London. I made this photo in 2012 and spent a lot of time enjoying the detail in the roses, in the Cathedral, and in the sky. Spending time looking at an individual image is what is known as "deep time".

"Words Not Spent Today Buy Smaller Images Tomorrow" - Frederick Sommer 1962 (see the next slide)



Today however we are more likely to spend time browsing through a great number of images in a short period of time. Spending time with images in this way is what is referred to as "cyber time". With cyber time we don't get to examine any one image for very long and as a result we have a very superficial or shallow understanding of each image.

This is what is referred to in the quote: "Words Not Spent Today Buy Smaller Images Tomorrow" - Frederick Sommer. Spending words on our images is the same as spending time on our images, and that gives us understanding and meaning from our images.



We often need to invest a certain amount of time in our images to understand their meaning.



Did you know that this was a riverbed in New Mexico? How long did it take you to figure it out?



And what about the image of the bottom right of this slide? Did you recognize it instantly?



Did it make you hungry!

# Captions: the use of Words Help us understand;

- Enhance the meaning; Jus makin room for ten capshun
- Make us laugh.



One of the ways that we add meaning to our photographs is through the use of words. The technical term for them is "captions".

Not all photographs are self-explanatory, so in some cases we do need to use words.



Using words to describe an image is very common when the image itself is somewhat ambiguous. Looking at the three images that follow write a caption that helps provide meaning to the photo.



This photo has a special kind of ambiguity to it. If you look at the area of the heads of the cheetahs it's hard to tell which way each cat is looking. One cat is standing behind the other and their heads seemed to blend together with the bodies. This is a special kind of ambiguity called an "merger". A more common example of this is the typical family photograph or someone looks like they have a branch growing out of their head. One challenging activity for a photographer to pursue is to try and create mergers that make what is interesting ambiguous.



Sometimes signs themselves can be ambiguous.



This is an example of another merger. The photographer had to get close to the dog, and down very low. Intentional mergers such as this can make for very significant and very interesting photos. The thing to be aware of is that this is an example of a photograph where the photographer was thinking of the image before it was created.


Making successful images requires us to understand how the camera sees. Also, we need to understand the difference between how we see and how the camera sees. The photo on the left is an example of how we would see the image if we were looking at the scene. We would see the detail of the building with the red roof, but we would not see detail on the distant horizon or in the nearby foliage. The image on the right on the other hand provides detail in all parts of the image. The image on the right represents a typical landscape photographers photograph using a very small aperture such as F-16 or F-22. That images is showing a great amount of detail via what is referred to as "Depth of Focus".



Activity – Use the card with your arm extended to show the effect of vision on perception of a scene! By keeping our gaze straight ahead and moving the card off to the right or the left we slowly lose the detail of the card. This shows us that to see something we have to be looking at it directly, we don't have very good detail vision in our peripheral vision.



This is one of the handouts that you are provided with in class. The idea is to tape it on the wall and take a photograph of it with a variety of shutter speeds that gets slower and slower. Eventually the shutter speed will be so slow that the camera movement from your hand shaking will cause the resulting image to be blurry.



Blurry like this sample images blurry.



When you take a look at this grid of colors the green on the left appears to be darker than the green on the right. The reason that the green on the left appears to be darker is that your perception is being influenced by the dark blue. The dark blue next to the green makes the green look darker than the green squares on the right next to the yellow. This effect is known as the influence of neighboring colors.



Seen by themselves both columns of green rectangles are the same green.



In order to make an effective photographic exposure you need to understand aperture, shutter speed and ISO. Aperture controls the volume of light that can enter your camera at any given time. Shutter speed controls how long that light is allowed to enter your camera. ISO controls how sensitive your camera is that light. These three controls work together to determine the brightness level of the final exposure.

When you arrive at the scene setting up your camera is very straightforward. First adjust the ISO to the amount of light that is available. Your subject matter will determine whether you set the aperture or the shutter speed. If you want shallow depth of focus then you will set the aperture. If you want to freeze motion then you'll set the shutter speed. The camera will then choose the remaining setting based on how much light it determines is available.



One of the beauties of digital photography is that once you have taken the image you can look at it on the back of the camera. Always assess the quality of the image by zooming in on the details in the photograph to make sure that you captured what you wanted to. Do not judge the quality of the image by the small representation that you get from the LCD on the back of the camera. Make sure that you zoom in on the image and examine the details to confirm that you got a quality photograph.



As well, check your cameras histogram to make sure that you did not overexpose or underexpose the image. The histogram is a very objective analysis of the quality of the exposure.



A very useful piece of software is CameraSim Pro. It allows you to simulate almost all camera functions and practice using those functions on your computer. The software is very affordable, at \$29 it is a useful tool both for an educator and for those that use it as students that want to practice. There is even a \$3 version of CameraSim for your iPhone!



Most of the higher-end cameras can record images in one of two forms. The default format is the JPEG format which is set by default at the factory. The JPEG photograph is processed entirely within the camera using a recipe that is preprogrammed when the camera is manufactured.



RAW requires a little bit more time to process the images, and a bit more robust computer to do the work, but the results are stunning compared to jpeg's. The software needed to process RAW files came on the CD that was included with your camera, or it can be downloaded from your camera manufacturers website. At the very least just Google "Camera Make/Model RAW processor".



Photography is all about understanding how to use light. One of the most important skills that a photographer can learn is the ability to manipulate the quality of light that's used in the photograph. This is where a demonstration of the various flash tools was provided.



As you practice making photographs you will become more proficient at keeping these five objectives in mind when you're making your photographs.



Think about the subject itself and all the qualities that you can include in the photograph that will emphasize your subject.



Jack Webb, playing detective sergeant Joe Friday never said "Just the facts, ma'am". That was from a late night radio parody of Dragnet. Snopes.com has the facts. The important part to note in all of this is that the details in your photograph should be there to support the subject, that's how meaning is created in photograph.



This slide shows two possibilities for an image. The first image is contained within the white boundary. It shows a pristine scenic backdrop, as if no human had ever visited. The entire image shows something altogether different. You can see that there is a signpost on the left and the front of the image and off to the side is a well-worn path from tourists. The photograph is not just about what you include in the frame it's about what you EXclude from the frame.



Time is a factor in all photographs. It may not be a very large amount of time, but it is a certain amount of time. This collection of photos, taken in very rapid succession, shows something that was previously thought impossible. All throughout history it was believed that when a horse ran the only time that its feet were all off the ground was when the front feet were pointing forwards and the rear feet were pointing backwards. These series of photographs prove that that's not true. These photographs show that the only time a horse's feet are all off the ground is when all 4 feet are pointing at the ground underneath the horse. Until photography proved painters wrong horses had always been portrayed galloping incorrectly!



The position of the camera when it takes the photograph is the last of the five essences of photography. This photograph is an example of a recently occurring point of view, that of the drone. As we become literate with images we will see more and more versions of drone photography.



Pictures can have "double meaning". This first photo shows an old woman with a broom, which represents the visual meaning of the image.

## Pictures can have "Double Meaning"



However, this second image represents a "Witch", the "symbolic meaning". This is one of the things that a photographer needs to be aware of when making an image. Could it possibly have a double meaning?



Photographs can also fit into certain physical zones of meaning. This example of the World Trade Center on 9/11 is an image that is known around the world.



This image of the Golden boy on the dome of the provincial legislative building is not known around the world, but it is known around Manitoba. This image has a much smaller physical zone of meaning.



Lastly, is this image of me when I was a cute little boy. This has very little meaning to anyone other than myself, but the personal meaning is enormous.



Photographs can have a tremendous amount of density. That does not mean density of meaning, but density of detail within the image itself. The expression of a great collection of detail can be the force that provides an image with meaning.

## Truth in photography is as old as Photography itself. Balls!



Truth in photography is very contentious. This famous photograph from the Crimean war is one of the first photographs that ever had its veracity in question. Namely, which photo came first, the cannonballs on the road, or the cannonballs off the road? As it turns out when Roger Fenton arrived to take the photograph the cannonballs were off the road. The photo on the right, showing the cannonballs on the road was a staged photograph. They determined this to be the case by examining the movement of the random rocks in the field. The rocks in the field were dislodged towards the road, as if they'd been kicked by people carrying cannonballs onto the road.



Could this be a trick question about the colour of the image being important to the representation within the image? Which of these two photos is more representative of World War II photography?



This Coke was not available in WWII – this is a photo from the set of a reenactment of WWII. This is a classic example of the meaning of the photograph being derived from paying attention to the details in the photograph.



What George Bernard Shaw was trying to say is that when we look at this photograph we think John Wayne, not Rooster Cogburn. Photographs have so much detail that they make it very hard for the real to represent the imagined, or for John Wayne to be recognized as Rooster Cogburn.

## Selective Cropping defies context:



This is obviously another World War II photograph, or is it?



No, it is taken from another reenactment. This is another classic example of how the frame defines the meaning in the photograph.



Here are some of the more common prejudices that viewers bring to their reading of a photograph. Being aware of the viewers prejudice allows you as the photographer to make your photograph in such a manner as to minimize those prejudices. Just remember you can't please all of the people all of the time.



Digital photographs are subject to the vagaries of time much more so than the old film style of photographs. The digital photograph dies in 1000<sup>th</sup> of a second, the amount of time it takes for a hard drive to make a write error.



Conversely, the photographic print can take over 150 years to fade away. Even then there is a great likelihood that the photo can be restored. The only way that a digital image can be restored is if there was another copy of it stored somewhere else. This is why it is so important to make a backup of each and every digital photo that you have. Remember the 3-2-1 rule of backup. 3 copies of every image, 2 different types of storage media, 1 copy of each image stored in another location.



Holding the photo of this slide up in front of you and looking at this slide on the screen you can see that they are not the same. All you can hope for is to make the best representation of the scene that you photograph. You cannot make a re-creation of the real scene.

Representing Reality: Paintings are creations, photographs are recordings of events.



"Execution" Painting by Goya

A lot of talk is made about comparing paintings with photographs. However, paintings are creations made over a great length of time, whereas photographs are made in a very short period of time.
Representing Reality: Paintings are creations, photographs are recordings of events.



"Execution" Painting by Goya



Whereas a painting can tell a story, a photo can only make a statement of fact.



The painting of a scene is not the same as a photograph of the same scene.



But that does not stop photographers from trying to imitate paintings. One of the most challenging activities you can try as a photographer is to make a photograph that emulates a famous painting. You should give it a try sometime, it's well worth the effort. You will learn a lot.



And it can also be a lot of fun after six straight days of rain at the north end of Vancouver Island!



Edward Muybridge described horses galloping with all 4 feet off the ground. This was previously not thought to be the case. That is descriptive work at its best.

Contemplate the Iceberg...what lies beneath the surface? That can be asked of more than just Icebergs!



Photographers see the image in front of them, but also previsualize an image in their mind. The camera records what you show it, according to the settings of your camera. However, the camera cannot record how you are experiencing the scene, and how you feel about it. Ultimately it is the photographer that must decide how to represent the image...and that is where the processing of the image comes it!



Do they create the image as it was recorded? Or as they want it represented? It's really a case of accuracy versus representation, and not an issue of truthfulness vs falsehood. To make this image representative of what I was feeling the scene evoked I added emphasis to the suns rays and made a vignette to cause the lady and her dog to stand out...just like how I felt about what I was seeing.



All we can tell from this image is that the batter has swung at the ball, we can't tell for sure if it was a hit or a strike.



In the second image we can argue that this is a landing, because of the angle of the plane in the sky. However, we do not know for sure if that is the case, we just suspect that it is the case based on the details we see in the photograph. Usually at take off an airplane's nose is at a much higher angle than what we see in this photograph.

## Photos can show an Action...



Hitting the Ball (action)

Most photographers are used to taking a photograph of the action.



A really good photographer knows that to give meaning to the action you take a photograph of the effect of the action.



The Photo "Learning to Ride a Bike Is Hard!" is not the same as the experience of learning to ride a bike.



Most people have seen the photo on the left, the National Geographic cover showing "Afghan Girl". When you see that photograph you think of the name of the photo, not the photographer that took the picture. When you look at the painting on the right you immediately think van Gogh.

### In Summary...

- We communicate using images;
- Signs play a big role;
- Meaning takes time, sometimes Words;
- Learn to See as your camera Sees;
- Track "The 5 Essences" of your Image;
- Photos are Statements extracted from Context, not stories themselves...

If you follow along with the main points of this presentation your photography will improve. But like anything else you need to practice! You should also likely slow down, and think through the photographs as you make them!



If you have any questions please do not hesitate to send me an e-mail via the website www.thenerdworks.com.



Thank you for attending this presentation. This presentation is a direct result of comments from students like yourself!





Tape this to a wall in bright light! With your camera set to Shutter Priority Start shooting at 1/250th sec then reduce your Shutter Speed by one click to 1/125th sec, keep shooting and reducing shutter speed until it gets down to 1/2sec. Examine the final images full size on your computer!



Typewriter

Typewriter

## Typewriter



Ν

W

E

#### JPEG camera processing vs Raw Image Capture



RAW Above

# **Comparing: Photograph vs Painting**





# Size affects Depth of Focus

