

University of Montana

## ScholarWorks at University of Montana

---

Graduate Student Theses, Dissertations, &  
Professional Papers

Graduate School

---

2008

### Digital Photography

Julie F. Whipple

*The University of Montana*

Follow this and additional works at: <https://scholarworks.umt.edu/etd>

**Let us know how access to this document benefits you.**

---

#### Recommended Citation

Whipple, Julie F., "Digital Photography" (2008). *Graduate Student Theses, Dissertations, & Professional Papers*. 322.

<https://scholarworks.umt.edu/etd/322>

This Professional Paper is brought to you for free and open access by the Graduate School at ScholarWorks at University of Montana. It has been accepted for inclusion in Graduate Student Theses, Dissertations, & Professional Papers by an authorized administrator of ScholarWorks at University of Montana. For more information, please contact [scholarworks@mso.umt.edu](mailto:scholarworks@mso.umt.edu).

# Darkroom to Digital

A transition of photography from the wet lab to the computer

By

Julie F. Whipple

B. F. S. Weber State University 1993

Professional Paper

Presented in partial fulfillment of the requirements  
for the degree of

Master of Arts

The University of Montana

July 2008

Approved by:

David A. Strobel  
Dean, Graduate School

Dr. James Kriley  
Creative Pulse, School of Fine Arts, University of Montana

Dr Randy Bolton  
Creative Pulse, School of Fine Arts, University of Montana

Karen Kaufmann  
Creative Pulse, School of Fine Arts, University of Montana

Jennifer Sorenson  
Committee Member, Snowcrest Jr. High School, Utah

Darkroom to Digital : A transition of photography from the wet lab to the computer

Director: Dr. James D. Kriley

I have enjoyed teaching photography classes in high school for many years. At the end of my first year in the creative pulse program, I decided to introduce a digital computer unit into my existing photography wet lab curriculum. To my amazement it was received well with positive and promising results.

Later in the year I received information that I would be teaching a full class in digital photography that would start at the beginning of the following school year. I began to research and work on curriculum that would best teach and inspire students to make the transition from the wet lab to the computer. I wanted to be able to inspire them to create interesting and meaningful projects.

I am by no means a Photoshop expert. It is not my main intentions to teach students a particular computer program. It is my desire to inspire the creative instinct in each student to create meaningful images, and to teach them how to achieve them.

Photography is in a huge transition at this time. The phenomenal development of electronics is growing by leaps and bounds every day. Just as you begin think you have learned the current new technology and can teach it, something newer is being introduced on the consumers market that is better. Progress is never ending, and it takes a great deal of time and effort to try to keep up with the continual new developments of the technical field of electronics.

The method of teaching photography by using wet lab techniques is a fading art skill and is becoming a dieing process. Materials and cameras are becoming harder and harder to find. The world of digital photography is here and here to stay.

Photography has existed for centuries. It is both an art and a science. As an art, it expresses a personal vision. As a science it relies on technology. This double nature is not unique to photography. Every kind of creative expression, such a music, dance or painting, has both a purely artistic side and a more scientific or technological side as well.

It is my desire to create a blend of teaching that incorporates the skills of printing in the darkroom to the extremely powerful tools of the computer while still focusing on the ability of captivating the creative imagination of the student.

## Acknowledgments

I would like to thank the many people that helped and supported me during the last two years of my continuing educational progress. My growth and development has been amazing during this time.

I would like to thank Jennifer Sorensen for sharing the information about the Creative Pulse program and encouraged me to register in it.

Also many thanks to the inspiring instructions given by the instructors that has taught the Creative Pulse program.

I want to thank my principal for approving my proposal of initiating a beginning digital photography class in our school schedule for this last year. I appreciate his continuing support of the digital classes for next year.

Also I want to give many thanks to my colleagues for their suggestions and words of encouragement.

I also want to thank my family for their understand and patients during the last two years. I appreciate their sacrifice of me being away from home for the last two summers and the many extra hours spent on the computer.

And last to my students that so willingly and graciously shared their creative projects with me for this paper.

## Contents

Abstract .....	ii
Acknowledgments .....	iii
Contents .....	iv
Images .....	v
Chapter	
1. Overview of Photography .....	1
2. Photography History .....	3
3. Introducing the Digital Class .....	8
4. Choosing a Camera .....	10
5. Taking Better Pictures .....	13
6. Lesson # 1 – Cropping .....	22
7. Lesson # 2 – Filters .....	26
8. Lesson # 3 – Emphasis .....	29
9. Lesson # 4 – Environment .....	32
10. Lesson # 5 – Improving your Pictures .....	35
11. Lesson # 6 - Personal Collage .....	37
12. Back-up .....	42
13. Summary .....	43
14. References .....	44

## Images

Figure # 1	Simplicity .....	p. 13
Figure # 2	“S” Curve .....	p. 14
Figure # 3	Diagonal Lines .....	p. 15
Figure # 4	Triangle Line .....	p. 16
Figure # 5	Beach Boy .....	p. 17
Figure # 6	Balance .....	p. 18
Figure # 7	Framing .....	p. 19
Figure # 8	Mergers .....	p. 20
Figure # 9	Border Merger .....	p. 21
Figure # 10	Example of Cropping .....	p. 24
Figure # 11	Crop a Picture .....	p. 25
Figure # 12	Fun Filters .....	p. 28
Figure # 13	Emphasis .....	p. 30
Figure # 14	More Emphasis .....	p. 31
Figure # 15	Environment .....	p. 33
Figure # 16	More Environment .....	p. 34
Figure # 17	Levels .....	p. 36
Figure # 18	Brainstorming .....	p. 37
Figure # 19	Collage .....	p. 38
Figure # 20	Second Collage .....	p. 39
Figure # 21	Student’s Paper .....	p. 40
Figure # 22	Collage and Paper .....	p. 41
Figure # 23	Back-up .....	p. 42

## Overview of Photography

Photography arose from the work of artists, scientists, and technologists in the 19<sup>th</sup> century, and has grown to become a medium that touches every part of human activity. From the earliest black-and-white prints to the latest digital images, photography has the power to challenge, inspire, inform, and amuse.

Photography is a medium that is made up of three interweaving major strands. The artistic movement was one which spread among photographers throughout the world. These creative pictures gave a separate identity that separated photography from the other visual arts. Cultural exchanges between photography and society came next, which had a lasting effect in newspapers and magazines, which have broadened public knowledge and understanding with issues and events. Last is the technological developments such as the explosion in digital image capture and manipulations in the late 1990's which have enabled photographers to continue to break new ground in the world of photography.

Like the phases of a personal history, different aspects of photography vary in importance with the stages of its development. The early impact of photography was entirely restricted to the wealthy. The cost of materials such as silver and handmade optical equipment was far too expensive to allow the average person to take advantage of the new technology. Once photography became industrialized in the 20<sup>th</sup> century, it was able to reach the mass market becoming accessible to all but the poorest and most disadvantaged.

Photography influence on social awareness became very powerful by its ability to change laws, create national parks, and sell products.

From the early use of the camera obscura, which was used as a drawing aid, to the discovery of the first chemicals that made images permanent, new technology has been at the forefront of artistic creativity. The arrival of roll film and miniature cameras in the early 20<sup>th</sup> century freed photographers from the studio and started a new age of photojournalism, documentation of scientific discovers, and the candid pictures of families.

With the introduction of color brought new challenges, both artistic and technical. Photographers were now able to cover subjects with greater realism. As technology continued to move forward, the development of long focal-length lenses, and large-aperture lenses revolutionized nature and sports photography by greatly extending the optical reach of the cameras. More recently, the emergence of computer technology has exploded the world of images. Even people with little interest in photography can take pictures instantly on their cell-phone cameras and then share them via the internet. On a larger scale satellite imaging has given us new insights into the universe and our planets.

Photography in the 21sst century is more widespread and diverse than at any other time in our history. Modern photographers are in an enviable position, and can enjoy the many facets of picture taking. The interplay of artistic, cultural and technological influences is perfect for creativity and innovation.



## Photography History

Photography took several hundred years to reach its present state. No one person can be credited with its invention. Many inventors worked on new processes and improvements of their equipment. There were many failures. Most failed because the new techniques were too complex, requiring great skills and took endless hours. Through the perseverance and determination of many inventors we eventually came to the photography that we know and use today.

The camera obscura (Latin for “darkened chamber or black box”) was a building block in the development of the camera. It was a box with a hole in one side through which light enters and projects onto the opposite side, creating an upside down image of the scene. The earlier versions to this device were mainly used by artist to assist them in their paintings.

The first breakthrough in light sensitive material came in 1725. A German physicist, Johann Schulze found that when certain silver salts were exposed to light they changed color and left an image on surfaces that were experimented upon. The images were not permanent and quickly turned to black once additional light was exposed to them.

About forty years later, photography started to make a lot of advances. A number of people began trying to produce a photographic image that would be permanent. In France, Joseph Niepce developed a method that produced an image on paper, but his images soon faded and were lost.

Meanwhile, a painter in Paris named Louis Daguerre was also trying to produce a camera image. After many failures he got in touch with Niepce and

the two worked together on the problem. Niepce died poor and discouraged after working with Daguerre for a few years. Daguerre was convinced that silver was the key to producing a better image. In 1835 his conviction paid off. He discovered a combination of chemicals that he called “fixer” that made an image permanent. Daguerre called his prints daguerrotypes and his process was soon being copied and used in several countries.

At first, the need for very long exposures made the process somewhat impractical for portraits. Few people were willing or able to sit perfectly still for up to twenty minutes. Within a year a new camera lens was introduced by Josef Petzval which transmitted 16 times more light. This reduced the exposure time to the length of a minute or less. Once sitting time was drastically reduced by the adoption of the Petzval lens, daguerreotype portrait studios became common. Each daguerreotype image was unique, a “one-of-a-kind” image. The only way to obtain an additional copy was to photograph the original image.

Eventually the daguerreotype would be replaced by the more flexible negative/positive system discovered by William Talbot in the early 1830's. By discovering and refining the negative/positive system, Talbot altered the direction taken by photography. Instead of being limited to unique, one-at-a-time images, photographers could now make as many copies as they wanted from each negative. A whole new kind of photography was born.

Improvements, modifications, and new discoveries continued to pour out of history over the next few years. Photographers changed from using the wet plate method to using the dry plate method. Photography changed from single

plate picture taking to a rolled film method. Cameras were being made smaller so that you no longer had to go to a studio and have your picture taken. The Photographer was now freed up by being able to transport his equipment to the outside environment. This gave the photographer the ability to taking pictures of the public out side the studio, which increased the ability of taking picture other than just portraits.

Photojournalism was introduced by two brave photographers that took their studio camera out to the field of battle during the Civil War in 1853. Mathew Brady and Roger Fenton documented history and inspired many other photographers to follow their example. Illustrated newspapers were soon to follow and by the early 1900's and photography in newspapers became routine.

George Eastman as a young man was very interested in photography. He took photography up as a hobby in the late 19<sup>th</sup> century. It was still an expensive pastime that required cumbersome equipment and complicated techniques of mixing chemicals. Eastman began to experiment with ways of making the process simpler and more affordable. In 1888 he invented the Brownie camera. It was the first camera that was produced for the masses. He loaded it with rolled film, which he invented and marketed it to the public with the slogan, "You press the button, we do the rest". This was the first camera that was put in the hands of everyone. His invention was immensely popular resulting in the birth of the Kodak Company with many more improvements to come, such as color film and motion pictures.

Photography without film seemed to burst upon the public in the late 1990's. The digital camera was invented for use around 1969 when it was used on the space shuttle Apollo 11. In 1984 a Japanese photojournalist used an "electronic still camera", to document the opening of the 1984 Olympic Games in Los Angeles, California. Through the remainder of the 1980,s various Japanese camera makers and Eastman Kodak, introduced digital products. The high cost and low resolution of the images restricted the market initially.

In the early 1990's however, digital photography began to be a serious competitor to film. By 2004 digital cameras were finally able to exceed 35 mm film image quality. From the first digital camera that Kodak launched called the DCS-100, which weighted a back-breaking 55 lbs. at the cost of \$30,000 with 1.3 mega pixels, to the current day digital camera at 6 oz, 10 mega pixels with the cost of \$179.00, you can see the progression and public demand for improved cameras.

The power of the photo image has now been launched. Investigative photography has now come into play. The documentation of situations has made public awareness possible to create new laws to better serve the people of our civilizations and cultures. Child labor reform laws from the legislation were one of the first laws to be created because of a photograph. It was followed by exposing poverty, which brought about providing welfare and government relief programs. Majestic lands were soon to be preserved and made into national parks all because of a photograph that had been taken and sent to Washington D.C.

As photography became less expensive and more widely available, a diverse range of people have found their voice in visual images. Propagandists and social reformers alike use photography to spread their messages. Artists have also been quick to take advantage of new equipment and use innovative techniques to push the boundaries of self-expression.

## Introducing the Digital Class

You are about to embark on the wonderful world of digital photography.

Photography isn't just about snapping the camera's shutter by pushing a button. It goes much deeper than that. It's about the "Why's" of the picture. It's about capturing an emotion, a feeling, a mood or an event in time.

It's all about learning how to see things differently by examining each new object carefully and asking yourself the "Whys" of taking the picture. Planning what you take is extremely important and you will find that you will spend more time planning what you take than actual taking the picture. Patient waiting and careful planning are important keys to successful photography. You want to look for interesting angles and different distances of your subject. Your light is very important and you may want to carefully plan what time of day is best to take your pictures, and to give you the best highlights, lines, and shadow angles. Usually early in the morning or late in the day, like early evening, will give you the best pictures. These times will give you interesting shadow images and softer edges. Try to avoid taking pictures at noon because there are no interesting shadows, and the sun is very harsh. Bright sunlight will cause the loss of details in light objects.

Other keys to success are taking lots of pictures. One of the advantages of taking digital pictures over using a film camera is that you are not going to run out of film. It's a lot easier to carry an extra compact flash card than carrying 20 rolls of film with you. Be sure to have a special case to put your compact flash cards in. Leaving them loose will result in damaging the connectors and will

create a loss of your pictures. It's very beneficial to have lots of picture choices to make decisions from. Don't limit yourself to just one or two pictures of a subject to choose from. It is often difficult to view pictures you have taken by looking in the camera's monitor or LCD screen. Better decisions can be made about which pictures you want to keep and which ones to be deleted, by viewing you pictures on a large computer screen.

By following a few special guides you will soon see how these will assist you to in taking better photographs. The more you use photography skills the sooner you will be able to experience and see the development of your own creativeness and personal self-expression.

## Choosing a Camera

Selecting a digital camera can be somewhat confusing. There are basically two different kinds of cameras to choose from. First is the automatic camera which is a point and shoot camera. Automatic cameras have a delayed shutter and you often miss the shot you are trying to capture. The second one is an SLR – single lens reflex camera, which has many more capabilities and features over the automatic camera. It takes pictures immediately without any delay of the shutter. The automatic camera is a much smaller camera, where as the SLR is a larger camera and looks like the old film cameras. The SLR camera has lens changing capabilities and the options of manual control settings. The SLR is used by most professional photographers, and is more expensive.

Deciding which camera that is best for you is purely a personal decision. You first need to know what you are going to use it for. You wouldn't want to take an SLR camera on a hiking trip because it would take up too much room and add weight to your back pack. You also wouldn't want to use a small automatic camera in a portrait studio situation. If it is financially possible, it's nice to have one of each.

When choosing a digital camera, the main thing to consider is which camera is going to give you the most options for your money. Almost all cameras come with high mega pixels and good quality lens. Choose a camera with the most optical zoom. A high zoom lens does not give you a quality picture when you use the zoom. It's the optical zoom that gives you the most clarity in



your pictures. With a regular zoom lens it is better to take the picture without using the zoom and crop it closer in the computer. Your picture will be clearer when you print it.

Batteries are another item to consider. It is best to select a camera with a rechargeable battery pack. Cameras that require AA batteries are costly, inconvenient and will not hold the charge as long. Buying an extra battery pack is always a good investment, especially for extended trips, and a full day of shooting..

Another thing to consider is a camera with a stabilizer in it. There is nothing worse than a blurry picture. When taking pictures you never know when a little breeze will come up and that great shoot of a flower will be ruined. As long as you are breathing and your heart is pumping, the camera is always moving. The stabilization feature on cameras is a great option to consider when making your purchase. To get maximum clearness in your pictures, always use a tripod. When a tripod is not possible do the second best thing which is to take a deep breath and hold it. You will be surprised how well this works.

Most people want to buy a decision free camera that they don't really have to give a lot of thought to. There is nothing wrong with that. A camera that is too complicated will often take the pleasure away from picture taking. Our society wants quick, easy, and fast. Cell phones are becoming another option. They have increased the mega pixels to 5 and more now and the convenience of having a camera with you all times can be a real advantage. Pick the camera that fits your needs, and gives you the most for your money. Never go into debt

for a camera or any other electronics because tomorrow there will be something new and better on the market that you will want to invest in.

## Taking Better Pictures

Understanding the “6 Guide Lines for Taking Better Pictures” will change your pictures from snapshots to photographs. By following these few simple guides you will soon see an improvement in your pictures.

### 1. **Simplicity**

- a. One subject.
- b. Uncomplicated backgrounds..
- c. Move in close.

Figure 1



Sample of Simplicity

## 2. Line

Lines lead the eye through your picture.

- a. "S" curves slows the eye down.
- b. "△" Triangle placement of subjects connects subjects and creates unity.  
Use overlapping.
- c. Diagonal lines create harmony and are the most pleasing to look at.

Figure 2



Sample of an "S" Curve

More examples of lines and how they lead your eye through the picture.

Figure 3



Sample of Diagonal Lines

Triangle lines connect several images. They keep your eye in the picture causing you to move from one object to another. Notice how much longer your eyes look at this picture simply by using the triangle format of your image.

Figure 4



Example of Triangle Lines

### 3. Rule of Thirds.

a. Place your main subject off center – rarely in the center.

b. Leave space in front of your subject.

Give your subject some place to go.

Place your horizon line either higher or lower but never in the middle.

Figure 5



Place subject off center

#### 4. Balance

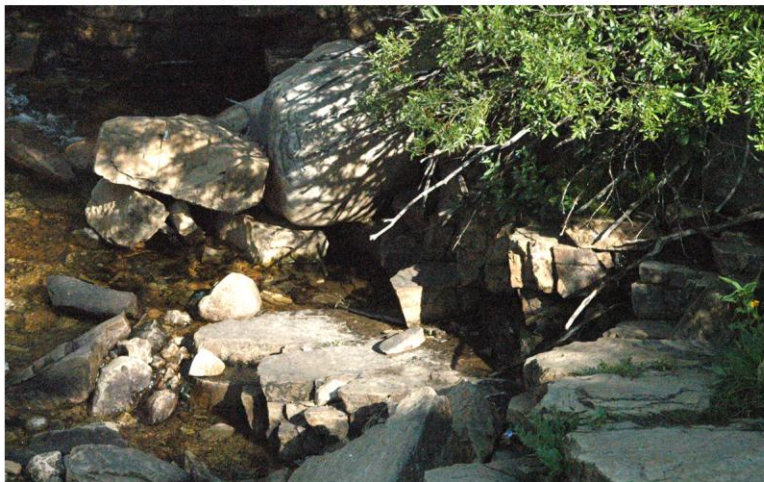
Balance is the arrangement of shapes, value, and color.

- a. Symmetrical balance is the same on both sides.
- b. Asymmetrical balance is different on each side.

Figure 6



Symmetrical Balance



Asymmetrical Balance



## 5. Framing

The use of framing is putting something in the foreground of your picture.

It creates depth, and increases the interest in your photograph.

- a. The use of organic things, such as overhanging tree limbs.
- b. Using buildings, doorways, bridges or other objects in the foreground.

Figure 7



Frame using buildings



Frame using overhanging trees

## 6. Mergers

Often a photographer gets so involved with setting up the light, camera settings, and the main subject that they forget about the backgrounds.

Avoid shooting mergers. Mergers are things that conflict with your main subject.

- a. Border Mergers - Cutting off heads or feet.
- b. Complete Mergers - Backgrounds interfere with the subject.

Figure 7



Sample of a Complete Merger

Figure 9



Example of a Border Merger

### Guides

The six guide lines are keys to better picture taking. Once you learn how to use them you will start to see improvements in your picture taking skills. Your snapshots will turn into photographs. Remember these are just guides and not rules. Don't be afraid to combine more than one guide line in your picture. It will only enhance your photograph.

One of the best ways to learn the guide lines is by practical application. The following projects are designed to help students reinforce the foundations of good picture taking.

# Cropping

## Lesson 1

### **Objective:**

The student will create several good compositions from a single picture by using the foundations and principles of the 6 guide lines.

### **Introduction:**

Cropping is taking out what you don't want. The camera is a good place to crop your picture, however the computer also works well. The computer gives you a bigger image to look at, and you can take more time to make final decisions. You want to concentrate on creating a good composition that is pleasing to look at and that will hold the viewers interest. Composition is the selection and arrangement of a subject within a picture area.

### **Anticipatory Set:**

Do a quick demonstration of cropping a picture. Show good and bad examples by cropping of the same picture several ways. Discuss what makes it good and what makes it bad. Review the 6 guide line as your crop the picture.

### **Directions:**

Take several original pictures of anything you like or find an image in a magazine and scan it into the computer. Save it to your school hard drive or put it on your flash drive.

1. Save your picture using 300 resolutions. Name it so that you can find it easily.
2. Make a duplicate copy of it – **Image > duplicate > OK** Close original picture.

3. Make 3 more duplicate copies and crop each to make a total of 4 different good compositions.
4. On the **Options bar**, set the size - height 4.5 and width 3.5 and 300 resolutions.
5. Open a new document. **File > new > 8.5 x 11 and 300 resolutions**.
6. Paste all four of your pictures on the new document by clicking on your picture and **Select > all (Ctrl+A) > Edit > copy (Ctrl+C)**. Click on your new document and **Edit > paste (Ctrl+ V)**. Use the move tool from the tool box (or press V) to move the pictures where you want them. Be sure you are on the correct layer to move your pictures around on the page.
7. Turn in your original picture in along with your four cropped pictures (total of 2 pages).

Note: Remember there are many methods of doing the same things in Photoshop. The above instructions are just one of them.

**Evaluation:**

Checking for understanding will be done by a class critique of every student's work. Test will be given at the end of the unit.

# Examples of Student's Cropping Assignments

Figure 10



Student's  
Original  
Picture



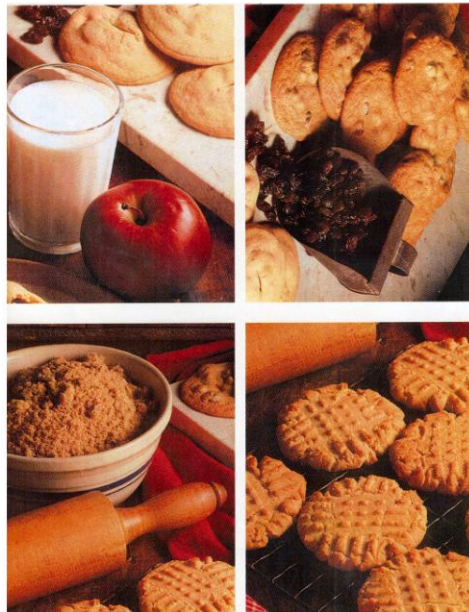
Student's  
4 Cropped  
Pictures

Another Example of Student's Works

Figure 11



Student's Original Picture



Student's 4 Cropped Pictures

## Filters

### Lesson 2

#### **Objective:**

Students will explore the use of different filters in their image.

#### **Anticipatory Set:**

Open Photoshop and demonstrate the use of filter on an over head projector. Change some images so that they become outrageous.

#### **Introduction:**

Photoshop is an enormous program. I don't think there is anyone that knows everything you can do with it. In this lesson I want you to play with the different filters and explore some of the different things that you can do with the programs options and selections.

#### **Directions:**

Open Photoshop and pull up the picture of "Buster". You may also use a different close up picture of your choice.

1. Duplicate the picture – **Image > duplicate > click OK** Close the original picture. Duplicate the picture 5 more times.
2. Crop each picture. Set the size to width 3.3 and the height to 3.5 with 300 resolutions. Place the curser in the top left hand corner. Click and drag to the bottom right hand corner. You may adjust the size by clicking on a corner handle and dragging it. Move the entire image by using the arrow keys. When you have the picture cropped the way you want it, Click the **Crop** tool > **OK**.
3. Apply different filters to make 6 different pictures.



4. Place pictures on a new document. From the Menu Bar click on – **File > new**.  
Choose 8.5 x 11.
5. Click back on your filtered picture and **Select > all (Ctrl+A) > Edit > copy (Ctrl +C)**. Click back on the new document and **Edit > paste**. Select the move tool and place the picture so that you can put the next 5 on your new document.
6. Repeat process. Be sure to leave a little space between your pictures so that you can type which filter/s that you used.
7. When all your pictures are on your paper, select the “**T**” (type tool) to label your work. Type can be moved by using the move too or arrow keys.

**Evaluation:**

Class critique will be held with all student’s work.

Figure 12



The variety of student's work was amazing. Students shared ideas with each other and the big question for the day was, "How did you do that"? Students learned that the possibilities of different things that can be achieved on Photoshop are endless. Students enjoyed this assignment and I enjoyed watching the interactions of students having fun while they were learning.

# Emphasis

## Lesson 3

### **Objective:**

Students will create a center of interest by using emphasis in their photograph.

### **Introduction:**

Emphasis is a compositional tool that makes some element/s of a picture stand out and capture the viewer's attention. It can be accomplished by using: size, value, or color. By emphasizing a single element of the photo, you are creating a center of interest. Your center of interest is what usually sends a clear message to the viewer.

### **Directions:**

1. Take a minimum of 50 or more pictures. More is always better.
2. Make a contact sheet of your work. **File > automate > contact sheet.**
3. Select a picture and duplicate it. **Image > duplicate > OK.**
4. Crop your picture to an 8x10 with 300 resolutions.
5. Change your color picture to black and white. **Image > mode > gray scale.**
6. Open a new document. **File > new > 8 x 10 > RGB.**
7. Click on your picture and copy and paste it to your new document.
8. Select the paint brush tool from the tool palette.
  - a. Select a color you want to use from the color picker.

- b. Adjust the **Hue/Saturation** from the dialog box. (about 144).
- c. Choose the brush size. Use the short cut [ & ] to do this.
- d. Change the opacity and the flow to achieve softness.
- e. Give your finish picture a title.
- f. Turn in you contact pages and 3 finished different prints.

Note:

You can blend beautiful colors by keeping your opacity and flow low. Start with your lightest color and add darker colors over the top for shading and reflected light. Follow the light and dark of your photograph to make it look natural and soft.

**Evaluation:**

There will be a class critique and discussion of student's work.

Figure 13



Sample of Emphasis

More samples of student's emphasis photos.

Figure 14



# Environment

## Lesson 4

### **Objective:**

Students will understand how to extract an image and place it in another picture. They will learn how to soften and clean up edges and make it look natural and real.

### **Anticipatory Set:**

Present a demonstration on the computer using the projector, to show students different ways to achieve finished work.

### **Introduction:**

Understand that there are many different ways to extract an image and paste it into another picture. These are a few different ways.

1. Regular lasso – creates a freehand-drawn selection.
2. Polygonal lasso – creates only straight lines.
3. Magnetic lasso - finds the edges of your object.

### **Directions:**

Students will put them selves in 3 different environments.

1. Take 50 or more pictures to select your projects from.
2. Magazine pictures may be used, but no internet pictures.
3. Open Photoshop and open your environment picture. Crop and enhance it. Duplicate environment picture.
4. Open the picture of yourself and lasso it. **Edit > copy.** Click on your environment picture and **Edit > paste.**

5. **Edit > transform** will more your picture and change the size of your image so that it will look natural. Place it where you want it.

6. Clean up edges with the **Eraser tool**. Zoom in so that you can really see what you are doing. Select brush size and opacity. Soften you edges because you don't want it to like a cut and paste.

Make sure you are on the correct layer to make any changes.

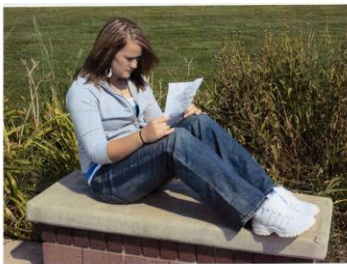
7. Write a one page paper about your environments.

**Turn in:**

1. Your contact sheet/s.
2. Your typed one page paper.
3. Your final 8x10 print page and one page with your two 5x7's on it. The two 5x7's are, one of your environment and the picture of you that you put into your final print. Remember there are 3 final environments due.

Samples of Student Work

Figure 15



The Student



The Environment

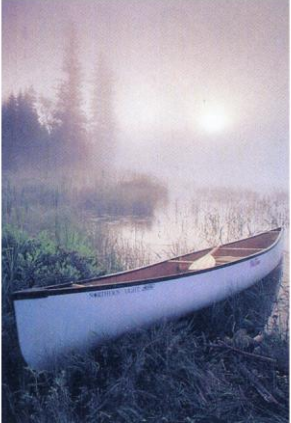


Final Picture

Student's Work Continued

Figure 16

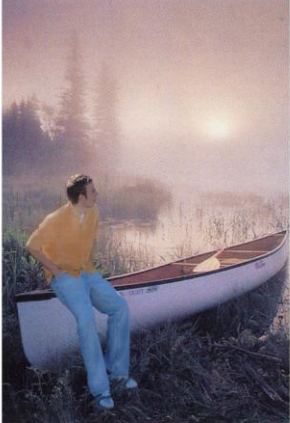
Original



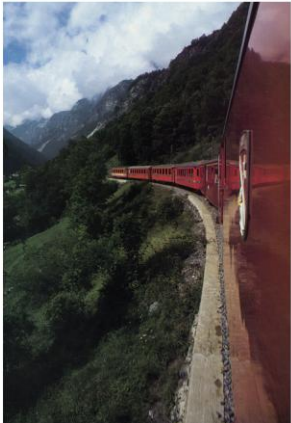
Student



Final Picture



Original



Students



Final Picture



Original



Student



Final Picture





# Improving Your Print

## Lesson 5

### **Objective:**

Students will explore the different ways to improve the light of a photo.

### **Introduction:**

It is difficult to get the perfect lighting exposure with every picture you take. You have the ability to come close to it with accurate camera setting and careful planning. Sometimes careful planning is not an option especially when you are taking pictures of family and children. You have the ability to fix pictures in Photoshop, so that you can save that cute picture.

Light adjustment can be made by:

- a. **Image > adjustment > Brightness/Contrast**
- b. **Image > adjustment > Curves**
- c. **Image > adjustment > Levels**

### **Anticipatory Set:**

Open the picture of the child on the deck and show a demonstration of different light adjustments using the above 3 adjustments.

### **Directions:**

1. Have students open up the picture of the child on the deck.
2. Duplicate the picture. **Image > duplicate > OK.**
3. Keep both pictures on the computer screen so that you can compare your changes.

4. Explore all of the light adjustment. Small adjustments are best. Don't get too extreme.

Figure 17

Dark Picture



Fixed Child



Original

Notice how you lost the details in the background. You will want to use the burn in tool to get the trees to show up, or lasso the little girl and cut and paste her in the original picture.

# Personal Collage

## Lesson 6

### Objective:

The students will design a personal collage page. They will learn additional Photoshop skills including: layers, sizing, balance, and opacity.

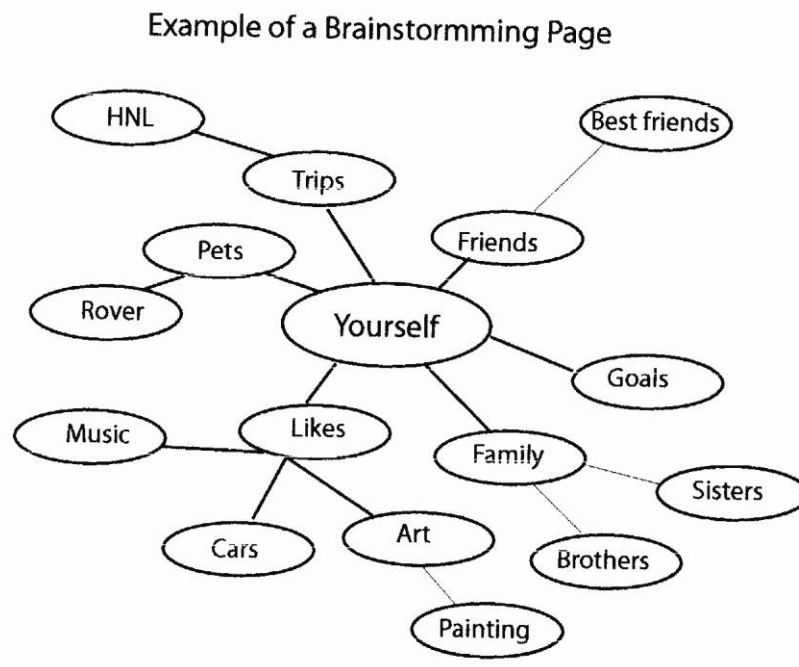
### Introduction:

You will design a personal collage page that is all about you. Include things that you like, things that you have done, your interest or hobbies, etc.

### Directions:

1. Create a brainstorming page. This will give you the direction of how to plan your design and what pictures you need to take.

Figure 18



2. Take 50 or more pictures. Take your subject at different angles. This will make your choices for your final project a lot simpler.
3. Create a contact sheet of your pictures. **File > automate > contact sheet.**
4. Place your pictures on an 8x10 size file and beginning to design your page. Check for: balance, size, opacity, hard edges, etc. Edit what works and what doesn't work. Be sure you are on the right layer to make changes.
5. You may add text to your picture if it enhances your design.
6. Create a written one page paper typed about your collage.

**Turn in:**

- a. Your contact sheets.
- b. A written one page paper about your collage.
- c. Your 8x10 print. With at least 10 different images on it.

**Evaluation:**

There will be a class critique of student's work. Each student will take a few minutes to talk about their picture and their design.

Figure 19



Student's Collage

Figure 20



Student's Collage

This is the student's paper that goes with (figure 20).

## Figure 21

### **My collage:**

This is a collage of things that I like. But, it is also so much more than that. It is full of feelings, emotions, meaning. Everything I do expresses what I hide inside. I wish I could be free from parts of my life I live alone. Free like a butterfly, able to go where I please and just fly away when I don't want to be here any more.

I love sunflowers. I just love flowers in general though. But, flowers are so unpredictable, they just do their own thing and what happens, happens. They're there to brighten the world and lift spirits and it doesn't matter what anyone thinks of them. If I could live like that... hmm... If only?!

The gymnast and the music notes in the corner probably have my most deep feelings in them. Music, mostly singing, and tumbling is my life. Was my life. I quit my competition tumbling class and my voice lessons for cheerleading. And for what, to throw it all away with one injury? I watch other girls tumble and it just kills me inside to know that I could do that. To know that I used to do it better. And if it wasn't for music, I'd either be dead or crazy. Music, whether happy, sad, soft, loud, no matter how it is it lets everything out of me. I have my specific songs for all my moods and when I'm in that mood my ipod goes on and I blast the song cause it just fills me up completely and somehow releases the feelings I can't release on my own.

I know that theirs is supposed to be a picture of our selves in this because it's ours, but this has meaning too. And most of the meaning lies in my eyes. My eyes give everything away. I can't hide anything because it shows through them. My mom says that when I'm truly happy they sparkle. To tell you the truth, it is very rare that that sparkle is there so when someone tells me it is, I know I've either found or done something great.

Finally, there is Matt. He is my happiness, my confidence, my courage, my protector. He gives me butterflies in my stomach and a sparkle in my eye. When I'm with him I forget that I had the worst morning in the world, that my family life is crap, or that I hate what I'm wearing and how my hair looks today. He doesn't love me because I'm beautiful, I feel beautiful because he loves me. Which is why love stories have no endings.

Figure 22



Figure 23

### **My Personality Collage**

I consist of fun, beauty, love and passion.

Fun, friends make life much more enjoyable. Having good friends makes all the difference between a hard life, a good life, and a great life.

Beauty, I appreciate the beauty and natural colors in the world. There are so many fascinating things around, if you take the time to look at them.

Love, love is not boastful, jealous, or hateful. It is sweet, kind, and respectful. Love is what surrounds me when I go home.

Passion, my definition of passion is something you do, that you work hard for and you love. It is a strong bond between you and something. Stepping onto a basketball court makes me forget my thoughts and all I focus on is the game I work hard for.

I consist of intelligence, grace, and sociality

Intelligence, reading is my hobby. I read for fun it takes me from my stressed out high school life into one that is carefree and oh so amazing.

Grace, music is my grace. When I play I just let the music overcome me and flow through my body. It gets to the deepest core of my soul.

Sociality, being social and talking to new people hearing new things keeps life interesting and fresh. I love goofing off and watching, listening to other people their joys, their problems. Is a fantastic part of my being.

## Saving Your Work

I can't stress enough the importance of saving your work. Students get so involved in doing their projects that they forget the basic important procedures that should be followed. The first thing is your picture set up. Set the size, resolutions, and duplicate your image. Save often as you are working. Our power goes out at our school quite often, and I still have a lot of unhappy students that have lost their work and have to do it over again. Next is the care of your memory card. Don't force, jam or push too hard when you are using a card reader or putting your card back in your camera. Last of all, save your work in several different places. Use the computer, flash drives, and C D's. Save your pictures in several different ways. The more backup's you have the better it is.

Figure 23





## Summary

As I come to the end of my project, I feel as if it's just the beginning of my journey to develop curriculum for digital photography classes. This experience has been challenging for me to develop a sequence of learning that reaches all students yet not overwhelm them. One of my goals is to inspire and motivate them to reach for higher levels of meaning in their work. Each student comes into the classroom with different degrees of knowledge, and I have designed my lessons to try to reach each learning level. Creating interesting lesson plans that will reach all students has been the most challenging for me. There are hundreds of books that have been written about how to learn the Photoshop program, but until you engage the students in a personal way, Photoshop is just boring and frustrating. My intent has not been to teach a computer program, but to teach the student how to create projects that holds personal meaning for them.

There is nothing more discouraging to me as a teacher than to see a student put their work in the trash can at the end of the term. I was very encouraged, at the end of this school year, to have an almost empty trash can.

Teaching is a challenge because there are no constants, only variables, which change as often as the skies. I totally love teaching students.

*Photography is a journey, how will you remember the trip?*

*Cannon*

## References

- Bidner, Jenni. *The Kids' Guide to Digital Photography*. New York: Lark Books, 2004.
- Davies, Adrian. *The Digital Photographer's Handbook on Nature*. Switzerland: Roto Vision Book, 2004
- Ephraums, Eddie. *Darkroom to Digital*. London: Aurum Press Ltd., 2004.
- Freeman, Michael. *The Complete Guide to Digital Photography*. New York: LarSterling Publishing Co., Inc., 2001.
- Kelby, Scott. *The Digital Photography Book*. United States of America: Peachpit Press 2007.
- Kelby, Scott. *The Photoshop Channels Book*. United States of America: Peachpit Press, 2006.
- Klasey, Jack. *Photo and Digital Imaging*. Tinley Park, Illinois: The Goodheart-Willcox Company, Inc., 2002.
- O'Brien, Michael. *The Photographic Eye*. Worcester, Massachusetts: Davis Publications, 1995.
- Sheppard, Rob. *PC Photo Digital SLR Handbook*. New York: Sterling Publishing Co., Inc., 2005.
- Vandome, Nick. *Digital Photo Projects*. New York: Barnes & Noble, 2004.
- Watkins, Pete. *Learning Photoshop CS3*. Tinley Park, Illinois: The Goodheart-Willcox Company, Inc., 2008.
- White, Ron. *How Digital Photography Works*. Indianapolis, Indiana: QUE., 2007