

Tabletop Photography for the Genealogist

This presentation was developed for the Computer Interest Group of the Rochester Genealogy Society, March 13, 2003. It is intended to photographers with basic skills in the use of a digital camera and digital photo-editing software.

All photographs were taken with an Olympus D-550 3-megapixel camera currently retailing at \$300. This camera has a 2.8x zoom lens, glass optics and an close-up/ macro function.

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What to shoot and why?

- ◆ **Convert trivial family artifacts into treasures**
- ◆ **Illustrate your stories with photos**
- ◆ **Pictures are worth a 1,000 words or less, but they need words to put them in context**
 - ◆ Build a story around the artifacts
 - ◆ Illustrate a story with an artifact





No copying is allowed!

- ◆ **What? No resources**
 - ◆ **No scanner available**
 - ◆ **No Xerox copier**
- ◆ **Digital photography to the rescue**
 - ◆ **Set camera for close-up/macro shot**
 - ◆ **Opt. 1: Steady camera on chair or post**
 - ◆ **Opt. 2: Place paper on floor between your knees**
 - ◆ **Use electronic flash (if possible)**



Maybe this should be called "floortop" or "spy" photography. Often you do not have a chance to make a Xerox copy of an old book or photograph in a library. If you can get to a good light source, sit in a chair, place the object on the floor between your feet, grab your camera, place your elbows on your knees, and shoot with your telephoto/macro lens. Shoot at the highest resolution you can. Set camera for the correct light source or use flash if allowed by the staff.

The photos do not need to be works of art, just clear for use at home or possibly scanning with OCR software.

An alternate position is to place the material on the seat of the chair and brace yourself on the chair back.

This is a good technique for copying pages from an old and delicate book.

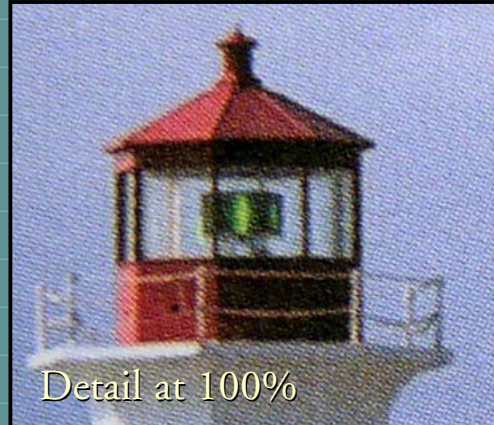


No copying is allowed!

Business Card using desk lamp



Original, 1488 x 1984 pixels
Cropped version shown on
right shows the dots of the
printer's screen



This is a shot of my business card. On the right is a detail in which you can see the dot pattern of the printer's screens. You do not need to adjust the focus control of your monitor.



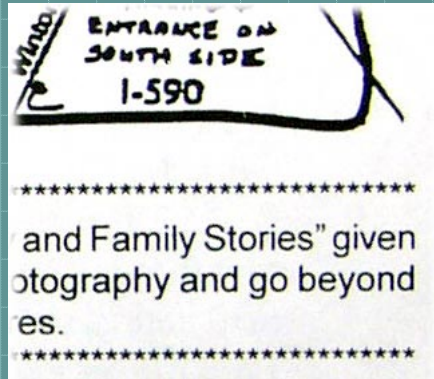
No copying is allowed!

◆ Page shot with window light



Original, 1488 x 1984 pixels

Cropped version shown on right



Detail at 100%





What equipment do I need?

- ◆ **Digital or analog camera?**
- ◆ **Macro mode/lens--highly desirable**
- ◆ **Minimum focal distance**
- ◆ **Flood lamps--Do it on the cheap**
- ◆ **Background/backdrop materials**
 - ◆ "Seamless paper"
 - ◆ Cloth scraps
 - ◆ Other materials (wood, metal, or plastics)



Analog cameras can yield superior results, only if you have advanced skills. Analog images have greater color and dynamic range. But, can wait to see the results?

Close-up lenses allow you to shoot small objects and fill the screen. You can see details that are barely visible to the naked eye.

Some digital cameras have macro-zoom lenses. These can frequently shoot an image the size of a business card at eight inches to a foot away.

Minimum Focal Length -- The minimum distance in inches or millimeters from the camera lens to the subject that you can shoot and still have part of the image in-focus.

Depth-of-Field -- The distance in inches or millimeters ahead of and beyond the focal point which will be clear in the image you shoot. This distance is influenced by the aperture of the lens and the exposure speed. Generally, the higher the exposure speed or smaller the aperture, the greater the depth-of-field.

Flood Lamps -- Use what you can afford. Generally speaking, it is better to use flood lamps if you can. They help to control the lighting and make shooting similar shots more predictable. I use inexpensive shells available at home improvement stores for about \$5 and common household bulbs. The rear light is on a dimmer to adjust the front-to-back light level ratio.

Background--Continued on next slide.

"Tabletop Photography and... Family Stories"

RGS CIG 3/13/03

Slide 6



What equipment do I need?

◆ Pedestals for small objects

- ◆ Knobs
- ◆ Small blocks or boxes
- ◆ Plate easels
- ◆ Clay

◆ Image Editing Software

- ◆ Recommended:
Photoshop, or Photoshop Elements
- ◆ Alternatives:
Whatever you can afford and know how to use well.



Pedestals--These can minimize shadows if you plan on removing the background in your digital darkroom. Use anything that is smaller than the object and will raise the object above the background material. Try to choose a pedestal whose color contrasts with the object being shot and is similar to the background in color value.

Image Editing Software-- I used Photoshop Elements. It is inexpensive and has a wide range of tools. It is a great bargain and has the same tools as its big brother, only fewer of them. In most cases, you will not miss what you do not have. If you do not own Photoshop, use what you have or can afford. There are many good programs on the market. Your ability to get the most from any program is more important than merely owning a better program that you do not know how to use.

Background--*Continued from previous slide.*

Backdrops/Backgrounds -- Large sheets of neutral-colored paper is overall probably best. Remnants of cloth can add some interesting colors and textures to the scene. But beware, they can compete with your subject matter and may make the images look busy. Use seamless paper if you plan on silhouetting the items you shoot to remove the background.



What equipment do I need?

◆ Tripod

- ◆ Steady Camera = Sharper Images
- ◆ Avoid hand-held whenever possible

◆ Complementary Props

- ◆ Help to establish scale
- ◆ Personalize primary subject
- ◆ Add interest



Tripod--A tripod will greatly improve the quality of your images by making them clearer. A second benefit is it will allow you to forget about the camera as you change the arrangement of the items you are shooting. You can often see the changes in your viewfinder as you make the adjustments. In most cases, the light level that is comfortable to your eye will require less than ideal levels, but your camera will do fine.

Complementary Props--Sometimes needed to establish scale of the object. Use something common, such as a penny, paperclip, or small ruler. Sometimes, props will put the subject in context or personalize it. Add other personal objects known to be owned by the same person, or introduce something of your own to contrast it. Old pocket watch and your more modern one. Shoot a collection of someone's tools, whatever they are. Carpentry tools, art brushes and pencils with samples of their work beside it.

Are you publishing a booklet of your favorite family recipes? How about a photo of the principal cook in the kitchen? If that is not possible, gather some items from the cook's kitchen, such as a pot, pan, an apron, some utensils, and place the old cookbook or note book beside them. This will make a great cover photo and show actual artifacts of the author.



Example 1: Rubber Stamp

Step 1: Compose & shoot basic photo

- Stamp on dining room table
- Old postcard provides context
- Shoot with flash



Background Story--The rubber stamp is the artifact. It was used by my father as a joke to stamp postal cards with "Having a fine time. Wish you were here." when he was on business trips. This photo is intended to be used to illustrate a story about the stamp.

Composition--Here is an example of a simple shot. The postal card is from the same time period, but does not have the stamp imprinted on it. It provides scale and relates to the use of the artifact. The background is typical of the environment in which the stamp may have been used. It also contrasts well with the stamp and postal card. This will make removing the background easy. A flash was used to light the subject. Flash provides deep shadow of the subject.



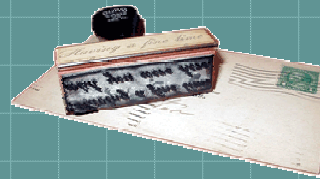
Example 1: Rubber Stamp

Step 2: Remove background

- ◆ Not relevant
- ◆ Adds no interest or information
- ◆ Focus attention on content



JPEG



GIF



GIF--Good for placement over colored backgrounds with the original background masked (cut out). Notice the edge of the GIF is rough when placed over a dark background.

JPEG--Good for placement on a white background. Maintains good image quality and best for photos with a few compromises. Always archive image at highest possible quality setting.

TIFF--Ultimate format for photo files and best for printing with inkjet or commercial printing. Can be generated with various compression and operating system preferences. Preserves layers if desired.



Example 1: Rubber Stamp

Step 3: Add detail of stamp impression

- ◆ Scanned impression
- ◆ Framed it
- ◆ Export file in TIFF, JPEG or GIF format



GIF

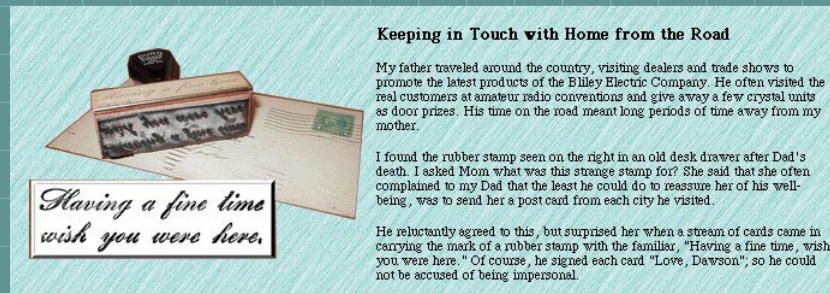


Scan of rubber stamp's image scanned and added to photo to show what the stamps says.



Example 1: Rubber Stamp

Step 4: Add image to your story



Clipping from Web page

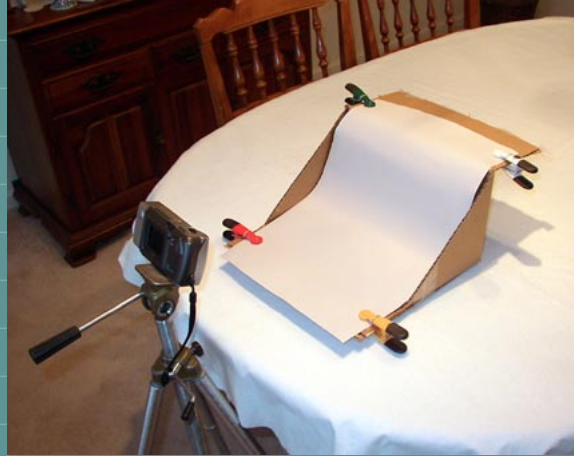


Destination for the image. Shown is part of a Web page on my family history site.



Preparing the "studio "

Building a studio in a box



Beginning of the tabletop studio. Starting with a cardboard box with a piece of light-gray seamless paper. (Seamless paper available in 50' rolls at Rowe Photo on South Avenue in a dozen colors.) Clips hold the paper in place.



Preparing the "studio"

Floodlights and bricks



Flood Lights and Brick Pedestals--Inexpensive flood lamps clamped to bricks on dining room table. Notice the use of an old tablecloth to protect the tabletop. Bulbs are chosen to stay within the socket's safety recommendation: 75 and 100 Watts. Small boxes used to elevate the rear "backlight".



Shoot Away

- ◆ **Adjusting the lighting**
- ◆ **Ouch! A hotspot!**
- ◆ **Bracketing? In digital photography?**
 - ◆ Multiple Shots - Digital "film" is unlimited
- ◆ **Color Balance--What is white?**
- ◆ **To zoom or not to zoom?**



Lighting--Lighting can be tricky. The backlight should be 50 to 100% brighter than the front light in most cases. However, this can create "hotspots" on reflective surfaces. Placing the backlight on a dimmer can allow you to quickly change the light ratio to suit you.

If you have a hotspot, try rotating the object as you look through the viewfinder. It may go away. This is true for mirror like surfaces. Try to shoot your objects in a fairly dark room so that any mirror reflections will look black, or nearly so.

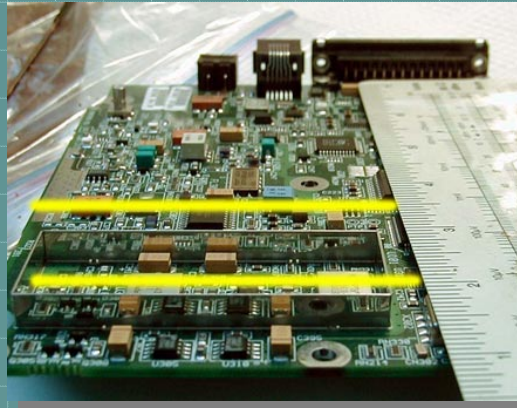
Try holding a piece of white or black paper over the object to provide a simple and clean image in the reflection.

Bracketing--Technique of shooting multiple shots of the same subject at different apertures. Shoot at the setting that camera light meter recommends, and then a half-stop or whole-stop higher or lower. This is your safety blanket that will allow you to choose the best shot in the group. Sometimes, the viewfinder shows an image that is different than what is actually shot. If you find the shots consistently brighter or darker, you may be able to manually adjust your camera to shoot at an offset for all shots.

Lighting--Continued on next slide



Shooting Small Objects



Depth-of-Field Example
Long Focal Length = Less in Focus



Here is an example of "depth-of-field". This is the area (range) in which items in the photo are in focus. This was shot using available light. Zooming in and using the macro mode reduced the depth-of-field to a narrow range.

Lighting--Continued from previous slide

Color Balance--Choosing what is really white. Good digital cameras have a control that allows you to select the basic white point. Settings are commonly referred to as bright or cloudy daylight, incandescent (tungsten) light, or fluorescent light. Top of the line cameras will allow you to point the center of the viewfinder at what you identify as "white" and press a button to set it. It is often possible to make some correction to the white balance in your graphics program, but the best choice is to shoot it right first. There are limits to computerized color correction.

Be wary of "automatic" white balance. If you are using tungsten bulbs, set the camera to match it.

Zoom or not to Zoom?--Generally speaking, the more you zoom the smaller your depth-of-field becomes and the more important holding the camera steady becomes. Zooming can also distort the image in close-up photos. Do it when necessary to fill up the image area or to keep out of the way of the flood lights.



Example 2: Photo Album

Cover photo for CD-ROM project



Test 1



Test 2



Experiment with various compositions. What looks good in the studio, does not always look good when you see it on screen or on paper. These images include genuine artifacts and other things to establish scale or add interest.

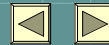


Example 2: Photo Album

Cover photo for CD-ROM project



Test 3: Limited to grandmother's items

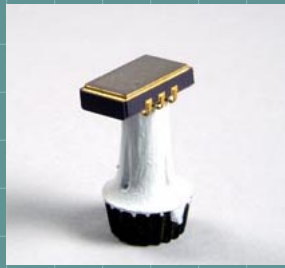


I decided the two previous arrangements were too busy and it would be difficult to describe what was a genuine artifact and what was a prop. The final photo was limited to actual artifacts. It is interesting and relatively simple.

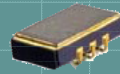


Shooting Small Objects

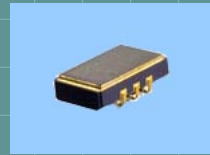
Putting your "family jewels" on a pedestal



Pedestal painted to match plain "seamless" background



No Background



New Background



OK. So this is not a family jewel and it really is an electronic component. Use your imagination! I did not get to keep the family jewels, so I must use mine.

The sample photo shows a small three-dimensional object on a pedestal made up of a painted light switch knob. The finished image will have the background removed and there will be no reflections from the floor of your tabletop studio to color or light the object you are shooting. The "pedestal" was painted to provide good contrast between the object and the pedestal when editing the image to delete the background.



Shooting Small Objects

"Diffusion" to minimize reflections



White sheet diffuses light, but increases exposure time



Diffusion of the the light source will minimize strong reflections on hotspots, but it will greatly increase the exposure time. Caution! Be careful not to melt or burn the diffusion material.

Frosted glass or sheet plastic can be used with less impact on the exposure time.



Example 6: Jewelry

**Dulling Spray:
Eliminates highlights, and some details**



Natural/Clean



Sprayed



Dulling spray is used by professional photographers to dull high-reflective surfaces when a soft light is not enough. It is water-soluble and can be rubbed off with a soft cloth and should not affect the surfaces. Read the label on the spray container. Available in art supply and camera stores.

Example 3: Grandfather's Stuff



**Change of backgrounds
can dramatically change
impact**



Shadows can be dramatic and add a sense of depth to the image. Placing the left-hand image on a dark background makes it look unnatural. It may be better to remove the shadow altogether and place it on an interesting background. The background can make the subject look dramatic.



Example 3: Grandfather's Stuff

His Match Box and Pocket Watch



Documentary shot. Not very exciting composition but established relative scale compared to each other.



Example 4: His Watch



**Watch in hand of
grandson nostalgic,
and adds scale and
interest**



The watch's scale is set by the hand, but, the hand is that of a relative. Close cropping shows enough of the hand to establish scale, but the focus in on the primary subject--the watch.



Example 5: The Sugar Bowl

**Not all photos
need to be
dramatic, but
they should
show detail**



Here is a photo of a family artifact. Photos can be interesting but still shot in a documentary style.



Into the Digital Darkroom

An overview:

- ◆ **Color correction**
- ◆ **Touching-up surfaces**
- ◆ **Removing the background**
- ◆ **Changing the background**





Now what do you?

Illustrate a story, then...

- ◆ **Post to the Web**
- ◆ **Publish on CD-ROM**
- ◆ **Print out your work**
- ◆ **Give it to everyone that is interested--
both inside and outside the family**



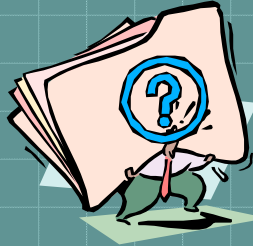
Use your photos to illustrate your family history. It will make it more interesting and add details that cannot easily be described.

Publish your work in various forms whenever practical. Get it out to as many people as possible. This will help to insure the work will benefit the most people and be kept alive.

Consider a family history Web site, publishing it on a CD-ROM, and do not forget the time-proven paper method.



Can you do it?



Sure you can!

*With good tools,
determination and practice...*





Questions & Answers



- ◆ Did I forget something?
Maybe?
Maybe not.
- ◆ Any questions?





The next step?

Go to work!





CAUTION! It can be messy!

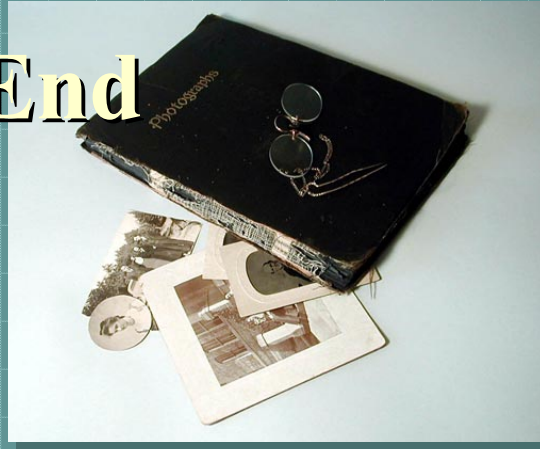


A real working "tabletop photo studio"



Here I am in my "tabletop photography studio". In this case, I am doing some photos of products for a commercial Web site. It is no less messy than doing family history photos. Pray for an understanding spouse; the setup you see here was up for over a month. Thank heaven we usually eat at the kitchen table. I cleared off for the Christmas and New Year holidays without being asked.

The End



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For a copy of this presentation online in PowerPoint, HTML and PDF formats, you can go to my Web site at www.Bliley.net/rgs/.

You will also find a my previous presentation on on publishing a family photo album CD-ROM at www.Bliley.net/CD/