

PHOTOGRAPHY AS A TOOL IN GENEALOGY

Text by Ron and Maureen Willis,
Willis Photo Lab
2510 Old Middlefield Rd.
Mountain View, CA 94043
Tel: (415) 969-3555

This document is Copyright 1999 Steve Knoblock, and may be reprinted for unlimited personal use. It may be freely redistributed for non-commercial purposes as long as copyright notices remain intact and proper attribution is maintained. It is not a public domain document and is copyrighted in order to prevent commercial redistribution (You may not *sell* this document or the original text without the express permission of the copyright holders). It is the understanding of the author that the original text may be freely distributed (feel free to distribute this corrected version) for non-commercial purposes and is copyright to Ron and Maureen Willis. Steve Knoblock disavows any rights in it.

This document is distributed on an AS IS basis and without warranty of any kind.

This document is available at <http://www.city-gallery.com>

History of this document.

Conversion to Portable Document Format (PDF) by Steve Knoblock (editor@city-gallery.com).

Retyped by Ted Swift (tsswift@well.UUCP or well.sf.ca.us)

Original text by Ron and Maureen Willis.

Photography As A Tool In Genealogy is to my knowledge the first document distributed over the Internet concerning the topic of using old photographs as tool in genealogy. Back then, there was not much interest among genealogists in interpreting and preserving family photographs. The Willis' were pioneers in understanding the significance of photographs to family history and genealogical research. Their interest in antique photographs and position in the photographic business enabled them to create this text on how to identify the photographs most commonly found in an old box or album.

It must also be one of the first texts devoted to helping genealogists identify and interpret their family photographs. Only a handful of books on this topic existed in the early 1990s. It represents a significant contribution to the growing community involved in the rediscovery of family photographs.

The electronic version of this document has been available on Internet for many years, since or before the inception of the world wide web. For many years Bob Wier maintained the original text with some extras at his FTP site. Others have hosted it on other sites, sometimes with or without proper attribution. I'm sure you will find other versions of this document on the web today. The version you are reading originally came from Bob Wier's site.

I had wanted to make this document available on the web since my web site first opened on the web in 1995. However, I was reluctant to offer an HTML version for a variety of reasons. Because of the closing of Dr. Weir's old FTP site and the more established nature of the PDF format, I thought it was time to take the original e-text and create a new version. I wanted to create a file that could be downloaded and printed taking advantage of high quality computer printers. A printed version would be easy to read and portable. In addition, I wanted to return to the original text, give the Willis' contribution a wider audience (this is the oldest version I could find, with the original message obtaining permission from the Willis') and ensure that the authors receive the credit they deserve for this fine, pioneering work.

This PDF version has adheres to the original text wherever possible. Any spelling errors have been corrected. The text, headings and other elements of visual structure have been styled for readability and appearance. A few *tiny* corrections of grammar were made. The plain text has been reformatted without hard line breaks. Formatting was done in MS Word and converted to PDF using Adobe PDF Writer.

Steve Knoblock,
Editor, City Gallery,
Arlington, VA 1999

PHOTOGRAPHY AS A TOOL IN GENEALOGY

Knowledge of photographic techniques is an important tool in genealogical research. Each step in the evolution of photography (with some overlapping) was predominant for only a short span of time. By determining the type of photographic technique used to make your old family photos, it is possible to date with reasonable accuracy when the originals were created.

I. DAGUERRETYPE (1839 - 1870, approx.)

A. The case resembled a double frame. Very decorative. The photo image is on a silver clad copper sheet which is attached to a sheet of glass by a foil-like brass decorative frame. This sealed packet was then force-fit into a special wood case and was often padded with velvet or silk.

B. Many times, the silver image tarnishes with silver sulfide in the same way as silverware.

C. The cost: \$5.00 (more than a weeks pay for most people).

II. CALOTYPE (1845 - 1855, approx.) The first photographs on paper. A two-step process where the first step was to make a negative image on a light-sensitive paper. Step two was to make a contact [print] with a second sheet of sensitized paper to make a positive print. Calotypes were never widely popular, and most of those surviving are in museums. Apparently Talbot (the inventor) did not fully realize the importance of washing his prints long enough to remove all the residual chemicals, or perhaps his fixing was inadequate. Either fault leads to the same result of fading image, discoloration, etc. These defects are now noticeable in many calotypes, some of which are today little more than pale yellow ghosts.

III. AMBROTYPE (1854 to the end of the Civil War)

A. The ambrotype is a thin negative image on glass made to appear as a positive by showing it against a black background.

B. Similar to daguerreotype in assembly of parts:

1. Outer protective case
2. Backing of black paper, cloth, or metal
3. The on-glass-image, emulsion to the front and black varnish on the back.
4. Brass die cut frame
5. Gilt border of thin brass to edge wrap the frame, glass, and backing.

C. It was common for the ambrotype to be colored. Suggestions of rouge cheeks or lips suggested a person of substance. Buttons, watch chains, pendants, broches were often tinted with color.

D. Disadvantages of ambrotypes:

1. A very slow (up to 20 sec.) exposure, compared to 2 sec. for a daguerreotype.
2. The glass was very fragile. It couldn't withstand travel or being carried in a locket as a daguerreotype could.

E. Advantage of the Ambrotypes:

Price. It could be sold profitably at a low price, approx. 25 cents.
The cost of the ambrotype was less than half of the daguerreotype.

IV. THE TINTYPE (1856 to WWII) "The penny picture that elected a president".

A. Price- sold for a penny or less, making photography universally available. The average price from the inception of the process in 1856 until its fade-out was 10 cents to 25 cents for an image about the size of a playing card.

B. Advantages:

1. Lighter and less costly to manufacture.
2. Camera was lighter and easier to handle.
3. Wouldn't shatter as a glass image photo would.
4. Could be colored or tinted.

As the public sought lower prices, the cases (which cost more than the finished photographs) were eliminated. In their place, paper folders of the size of the then popular card photographs were used for protection. Instead of a glass cover, the photographer covered the tintype with a quick varnish to protect any tints or colors added to cheeks, lips, jewelry or buttons.

C. Popularity:

The tintype was very popular during the Civil War because every soldier wanted to send a picture of himself with his rifle and sword home. They could be mailed home safely without fear of shattering.

D. The tintype actually does not contain any tin, but is made of thin black iron. It is sometimes confused with ambrotypes and daguerreotypes, but is easily distinguishable from them by the fact that a tintype attracts a small magnet.

DATING THE TINTYPES

Introduction 1856 - 1860. The earliest tintypes were on heavy metal (0.017 inches thick) that was never again used. [?-tjs] They are stamped "Neff's Melainotype Pat 19 Feb 56" along one edge. Many are found in gilt frames or in the leather or plastic (thermomolded) cases of the earliest ambrotypes. Size range from one-sixth plate to full plate.

Civil War Period 1861 - 1865. Tintypes of this time are primarily one-sixth and one-fourth plate and are often datable by the Potter's Patent paper holders, adorned with patriotic stars and emblems, that were introduced during the period. After 1863 the paper holders were embossed rather than printed. Uncased tintypes have been found with cancelled tax stamps adhered to the backs. The stamps date these photographs to the period of the wartime retail tax, 1 Sept 1864 to 1 Aug 1866.

Brown Period 1870 - 1885. In 1870 the Phenix (sic.) Plate Co. began making plates with a chocolate-tinted surface. They "created a sensation among the photographers throughout the country, and the pictures made on the chocolate-tinted surface soon became the rage". During this period "rustic" photography also made its debut with its painted backgrounds, fake stones, wood fences and rural props. Neither the chocolate tint nor the rustic look are to be found in pre-1870 tintypes.

Gem Period 1863 - 1890. Tiny portraits, 7/8 by 1 inch, or about the size of a small postage stamp, became available with the invention of the Wing multiplying cameras. They were popularized under the trade name Gem and the Gem Galleries offered the tiny likenesses at what proved to be the lowest prices in studio history. Gem Galleries flourished until about 1890, at which time the invention of roll film and family cameras made possible larger images at modest cost. It was no longer necessary to visit a studio that specialized in the tiny likenesses. Gem portraits were commonly stored in special albums with provision for a single portrait per page. Slightly larger versions also existed. Some Gems were cut to fit lockets, cufflinks, tiepins, rings and even garter clasps.

Carnival Period 1875 - 1930. Itinerant photographers frequently brought the tintype to public gatherings, such as fairs and carnivals. They came equipped with painted backdrops of Niagara Falls, beach, boat, and other novelty props for comic portraits.

Postmortems. In the nineteenth century it was common to request a photographer to make a deathbed portrait of a loved one.

V. THE CABINET CARD (approx. 1866 - 1906). A card stock product, nearly four times the size of previous photographs on card stock.

A. The larger size created new problems of photographic quality. Flaws that were not obvious in the smaller cards now became very visible. This gave rise to a new skill of photo retoucher.

B. Success in retouching led to innovations in the darkroom and at the camera. Diffusion of the image reduced the need for retouching. This led to verbal skirmishes between photographers who insisted in "truth in photography". Opponents called retouching degenerating, demoralizing, and untruthful practices.

C. Cabinet cards can be further dated by color of stock, borders, corners and size.

QUICK DATING GUIDE TO CABINET CARDS

The earliest American-made cabinet cards have been dated only to the post- Civil War period, beginning in 1866. Design and colors of these cards followed those of the cartes of that time. Cabinet cards are rarely found after 1906.

Card Colors	
1866 - 1880	White card stock of a light weight
1880 - 1890	Different colors for face and back of mounts
1882 - 1888	Face of buff, matte-finished, with a back of creamy-yellow, glossy.

Borders	
1866 - 1880	Red or gold rules, single and double lines
1884 - 1885	Wide gold borders
1885 - 1892	Gold beveled edges
1890 - 1892	Metallic green or gold impressed border
1896	Impressed outer border, without color.
1889 - 1896	Rounded corner rule of single line
1882 - 1888	Face of buff, matte-finished, with a back of creamy-yellow, glossy.

Corners	
1866 - 1880	Square, lightweight mount
1880 - 1890	Square, heavy board with scalloped sides.

-Photographs mounted on card stock-
The most popular mount sizes were:

Carte-de-visite

4 1/4" x 2 1/2"

Cabinet card

6 1/2" x 4 1/2"

Victoria

5" x 3 1/4"

Promenade

7" x 4"

Boudoir

8 1/2" x 5 1/4"

Imperial

9 7/8" x 6 7/8"

Panel

8 1/4" x 4"

Stereograph

3" x 7"

REVENUE STAMPS ARE A TOOL FOR DATING PHOTOGRAPHS

As part of the effort by the Congress to fund the Civil War, among a number of taxes levied was an 1864 Act which provided that sellers of photographs affix stamps at the time of sale to "photographs, ambrotypes, daguerreotypes, or Any sun pictures", according to the following schedule, exempting photographs too small for the stamp to be affixed:

Less than 25 cents
2 cents stamps (blue/orange)

25 to 50 cents
3 cents stamps (green)
50 cents to \$1
5 cents stamps (red)
More than \$1

5 cents for each additional dollar or fraction thereof.

Stamps were applied from 1 Aug 1864 to 1 Aug 1866. Blue "playing card stamps are known to have been used in the summer of 1866 as other stamps were unavailable as the levy came to an end. The stamp was to be canceled in the original Act by requiring that the seller cancel the stamp by initializing and dating it in ink.

The most rare of all of these stamps is the one cent (red) "playing cards" and the most common is the orange two cent "playing cards". Values for all of these stamps appear in the Scott's Specialized Catalog of United States Stamps.

VI. THE STEREOGRAPH (1849 - 1925). "Parlor Travel" both educational and entertaining.

A. The stereograph is an almost identical side-by-side set of images of a single scene, viewed simultaneously through an optical device held to the eyes like a pair of binoculars. Each eye looks at a slightly different image, and the fusion of the two images in the mind creates the illusion of depth.

B. Price: a few pennies.

C. Sizes of stereo cards and slides: The typical mass manufactured stereo card of the period between the Civil War and WW I had a standard dimension: 3 1/2" x 7". This is the size commonly found in boxed sets. The earliest of these cards were made on slightly curved mounts; later cards were made on slightly curved mounts that permitted greater clarity when they were seen in the stereopticon viewer. A number of photographers, working with larger field cameras, created slightly larger cards of 4" x 7", 4 3/8" x 7" and 4 1/2" x 7". Until about 1873 the smaller sizes were sold for twenty five cents per card and the larger "artistic" size for fifty cents. Within a decade sets of twenty or more were made on printing presses, not by a hand photographic process. The on-glass slides, a stereo form more popular in Europe than in America, were available in two standard sizes, 45 x 107 mm and 6 x 13cm. Both were smaller than the standard card stereographs.

VII. THE WET-PLATE PRINT (c.1853 - 1902). "The photograph that opened the West". (A large contact print).

A. To identify the wet-plate negative, look for an uneven coating where the syrupy collodion base of the glass plate did not flow to the very edges of the glass. Many of the plate edges reveal torn or rippled emulsion and even the fingerprints of the darkroom technician who handled it with wet fingers. Only occasionally is it possible to determine whether a print was made from a wet-plate negative, especially if the outer edge of the print has been trimmed away. It is the edge that would immediately reveal the irregularities of the collodion coating prepared in the field.

B. Few Americans could afford the cost of a studio enlargement made with a solar enlarger. The technique of making such enlargements were so complicated that few photographers had the proper skill to make an enlargement from a standard studio negative. Much of the demand for larger photographs could be satisfied by making larger negatives and larger cameras to handle them. Wet plate negatives were often 11" x 14" up to 20" x 24" sheets of sensitized glass.

C. Wet-plate photographers helped to open the American West by taking their cameras out of the studio and on location assignment with the survey teams of the U.S. Government and the railroads in the Far West, and with the geological expeditions moving into the unmapped wilderness beyond the Rocky Mountains. The giant spaces they discovered demanded giant cameras. The camera that documented the famous meeting at Promontory Point, Utah of the tracks of the Central Pacific and Union Pacific railroads on 10 May 1869 was built to accommodate glass plates 10"

x 13". The camera boated down the Colorado River during the Powell Expedition into the Grand Canyon was 11" x 14".

The work of these photographers, shown in major exhibitions in Washington D.C., is generally acknowledged to have been instrumental in convincing Congress to enact legislation establishing many of the major national parks, monuments, and preserves. The maps of the surveys showed where everything was; the wet-plate photographers showed precisely what was there.

Additional Material

The following is a portion of the original discussion concerning how permissions were obtained for distribution of this document over the Internet. And a few messages added by Dr. Bob Wier, who maintained a copy of this document for some years at his FTP site, from which this document was obtained. These are maintained here for historical reasons.

Subject: Dating (as in time) old photographs (long)
> PHOTOGRAPHY AS A TOOL IN GENEALOGY text by Ron and Maureen Willis,
> Willis Photo Lab, 2510 Old Middlefield Rd., Mountain View, CA 94043
> (415) 969-3555 > retyped by Ted Swift (tswift@well.UUCP)

>I will have to communicate with Ron and Maureen Willis and see if they
>will make their paper available to our local Genealogical Society Newsletter
>for republishing.

Bill;

I think you can go ahead and republish the article, though for thoroughness you may still want to call them. When I talked to Ron to get permission to post it to the net, he was happy to give permission, as long as credit was given.

Just a plug for photo labs in general: I took a bunch of old (paper) prints to Willis and was very impressed at the improvement that just copying the image

onto new paper can make; yellowed paper looks much darker to the eye than to black & white film (probably with the help of a yellow or even red filter).

And

though I don't remember the cost, the rates seemed very reasonable for the results achieved. Though I don't make a point of spending all my income on genealogy, these old photos are unique and therefore "priceless".

[standard disclaimer: Willis is only down the street, and Ron and Maureen were

kind enough to come to our genealogical meeting, that's it]

X-NEWS: uoft02 soc.roots: 4423

Relay-Version: VMS News - V6.1B5 17/9/92 VAX/VMS V5.5-1; site
uoft02.utoledo.edu

Path:

uoft02.utoledo.edu!malgudi.oar.net!zaphod.mps.ohio-

state.edu!howland.reston.ans.net!paladin.american.edu!auvm!MERLIN.ETSU.EDU!WIER

Newsgroups: soc.roots

Subject: dating old photos

Message-ID: <ROOTS-L%93031518201503@VM1.NODAK.EDU>

From: "Dr. Robert R. Wier" <wier@MERLIN.ETSU.EDU>

Date: Mon, 15 Mar 1993 18:24:27 CST

Reply-To: "Dr. Robert R. Wier" <wier@MERLIN.ETSU.EDU>

Sender: ROOTS-L Genealogy List <ROOTS-L@NDSUVM1.BITNET>
Comments: Gated by NETNEWS@AUVM.AMERICAN.EDU
Return-Path: <@AUVM.AMERICAN.EDU:OWNER-ROOTS-L@VM1.NODAK.EDU>
Return-Path: <@VM1.NODAK.EDU:wier@MERLIN.ETSU.EDU>
Mailer: Elm [revision: 66.25]
Comments: To: ROOTS-L@VM1.NODAK.EDU
Lines: 35

On dating old photos, there are a couple of other suggestions I can make (although getting specific information on the photographer is a very good idea as a primary means of getting a date) -

The technology of the photo can give you a general idea of when it was made - but unfortunately the technology moved fairly slowly into rural areas. For example, I am dealing with a tintype which APPEARS to have been made about 1885. This would seem to be a little late to me, since the switchover to albumen prints was well underway by that point. On the other hand, this tintype came from a remote mountain area in Colorado, so it COULD have been made by a photographer who wasn't dealing in albumen prints (eggs were hard to get, while metal and silver weren't...). Thus the technology used can be useful, but not infallible. Silver based photo paper starts turning up pretty commonly by 1915 or so (and photos from that era frequently had excess silver, and have a distinct metallic sheen in the black areas).

Another key is the type of clothing worn. I'm certainly no expert, but I've had pretty good luck in guessing a photo's date to within 20 years or so (subsequently proven by other means), particularly in men's clothing. There seems to have been a bit of change from "old" style clothes to "newer" styles about 1900 or so, which gets pretty obvious by 1910 or so. Maybe somebody can comment on this - due to the switchover to "store bought" clothes? Street scenes are nice, especially if they show early autos - you can pin those down pretty closely.

I'd be real curious about any other clues people can think of...

--- Bob Wier

----- insert usual disclaimers here -----

Bob Wier / director / Historic Image Processing Project
internet: wier@merlin.etsu.edu (watch for address change)

X-NEWS: uoft02 soc.roots: 4430
Relay-Version: VMS News - V6.1B5 17/9/92 VAX/VMS V5.5-1; site uoft02.utoledo.edu
Path:
uoft02.utoledo.edu!malgudi.oar.net!zaphod.mps.ohio-state.edu!howland.reston.ans.net!paladin.american.edu!auvm!CROB.FLINT.UMICH.EDU!
GIFFORD_P
Newsgroups: soc.roots
Subject: dating old photographs
Message-ID: <MAILQUEUE-101.930316093455.352@crob.flint.umich.edu>
From: Paul Gifford <GIFFORD_P@CROB.FLINT.UMICH.EDU>
Date: Tue, 16 Mar 1993 09:34:55 EST

Reply-To: Paul Gifford <GIFFORD_P@CROB.FLINT.UMICH.EDU>
Sender: ROOTS-L Genealogy List <ROOTS-L@NDSUVM1.BITNET>
Comments: Gated by NETNEWS@AUVM.AMERICAN.EDU
Return-Path: <@AUVM.AMERICAN.EDU:OWNER-ROOTS-L@VM1.NODAK.EDU>
Return-Path: <@VM1.NODAK.EDU:GIFFORD_P@CROB.FLINT.UMICH.EDU>
Priority: normal
X-Mailer: Pegasus Mail v2.3 (R4).
Comments: To: roots-l@vml.nodak.edu
Lines: 24

Dating photographs is relatively simple.

Getting past daguerreotypes and ambrotypes (which died out about 1855 and 1865 respectively), tintypes present more problems in dating than the albumen and other prints made from negatives. The first tintypes (about 1860) had a paper backing and were put into daguerreotype cases. Later tintypes (1890s) had a bronze colored back. I have a tintype of my father taken about 1913, so I know that the process continued on for a while. For albumen prints, which started about 1860, the earliest were carte-de-visites, mainly 2.5 x 4 inches, at first with sharp corners, then with rounded corners. In the late 1860s and early 1870s, larger prints frequently had mattes with oval cutout and gold-colored line borders. The cabinet photos, 4 x 6.5 inches, sepia-toned, with the photographer's name at the bottom, date from about 1880 to the early 1890s. Photographs from the 1890s generally are attached to cardboard mattes of various designs, often white. Then the Kodak Brownie home photos start to appear in the mid-1890s, and were often developed as postcards (until about 1925). You can go on in more detail after this period; hopefully others will comment on this. Try this book: William Welling, *Collectors' Guide to Nineteenth-Century Photographs* (New York: Collier, 1976).

Paul Gifford
University of Michigan-FLint
Flint, MI