

1-1-2012

A Descriptive analysis of Ten Painted Tintypes from the George Eastman House Collection

Claudia Pfeiffer
Ryerson University

Follow this and additional works at: <http://digitalcommons.ryerson.ca/dissertations>



Part of the [Photography Commons](#)

Recommended Citation

Pfeiffer, Claudia, "A Descriptive analysis of Ten Painted Tintypes from the George Eastman House Collection" (2012). *Theses and dissertations*. Paper 1494.

This Thesis is brought to you for free and open access by Digital Commons @ Ryerson. It has been accepted for inclusion in Theses and dissertations by an authorized administrator of Digital Commons @ Ryerson. For more information, please contact bcameron@ryerson.ca.

A DESCRIPTIVE ANALYSIS OF TEN PAINTED TINTYPES FROM THE
GEORGE EASTMAN HOUSE COLLECTION

by

Claudia Pfeiffer

Diploma in Design, Branch of Photography and Media,
University of Applied Sciences, Bielefeld, Germany, 2006

A Thesis

presented to Ryerson University and the George Eastman House

in partial fulfillment of the
requirements for the degree of

MASTER OF ARTS

in the Program of
Photographic Preservation and Collections Management

Toronto, Ontario, Canada, 2012

© Claudia Pfeiffer 2012

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I authorize Ryerson University to lend this thesis to other institutions or individuals for the purpose of scholarly research.

I further authorize Ryerson University to reproduce this thesis by photocopying or by other means, in total or in part, at the request of other institutions or individuals for the purpose of scholarly research.

I understand that my thesis may be made electronically available to the public.

A descriptive analysis of ten painted tintypes
from the George Eastman House collection

Master of Arts, 2012

Claudia Pfeiffer

Photographic Preservation and Collections Management

Ryerson University / George Eastman House

Abstract

This thesis is a descriptive analysis of a selected group of ten painted tintypes from the George Eastman House collection. All ten objects are large, heavily overpainted portraits with dates ranging from the 1860s to the 1890s, which is considered the peak of the painted tintype's popularity. All ten tintypes share two significant features: they all have a completely overpainted, or in one case an abraded, background and they all share a collage-like look due to the use of different paints on one image. The thesis will investigate the painted tintypes' aesthetics in relation to their time period considering the major social changes that occurred during the Victorian era. It will contextualize them in a broader tradition of painted photography and show their connection with the notions of time, space and memory as they were influenced by and shifted with the introduction of new communication and transportation technologies.

Acknowledgements

I would like to thank all my professors both at Ryerson and George Eastman House. Studying in this program for the last two years has introduced me to a multitude of new perspectives on photography as a medium and a cultural practice.

Above all, I would like to thank Alison Nordström, my first reader, for her support and guidance through all the different stages of my research and writing, and for her patient assistance with my writing in English, my second language. Thank you to Marta Braun, my second reader, for constant support throughout the program and many valuable comments to this thesis. I would also like to thank my academic advisor, David Harris, whose teaching and advice always opened new approaches for me and who I admire as a role model for meticulous academic research.

I would like to thank the staff at George Eastman House for providing insight into the everyday concerns of a museum, and offering an invaluable perspective on the mandate of museums, archives and collections and their potential role in the future. Thank you in particular to Joe Struble, who was always there to provide access to my thesis' objects, to discuss any question related to the vast holdings at the museum and further sources related to my subject. Thank you to Taina Meller, who took the time to discuss the paint on the tintypes and to supervise the process of taking photomicrographs of my objects. Thank you to Mark Osterman, who in a conversation inspired me to write about tintypes and has helped me with my questions about nineteenth century material and my thesis subject in uncountable instances.

Lastly, I would like to thank my husband for all his support and shared interest in photography.

Table of Contents

Abstract	iv
Acknowledgements	vi
List of Illustrations	ix
Introduction	1
Definitions and methodology	4
Literature survey	6
A short history of the tintype	14
Photography and painting	18
Painted photographs	22
Description of ten painted tintypes	26
Victorian society and visual culture	36
Conclusion	43
Bibliography	44
Illustration credit	47

List of Illustrations

Figure 1:

Unidentified Photographer
Unidentified girl, ca. 1885
Tintype with overpainting
Image/ Overall: 23.5 x 17.6 cm (Whole plate)
Museum Collection
1982:1544:0002

Figure 2:

Unidentified Photographer
Unidentified woman, ca. 1860's
Tintype with overpainting
Image/ Overall: 20.2 x 15.2 cm (Oval, whole plate)
Gift of Ronald Frischut
1974:0213:0001

Figure 3:

Unidentified Photographer
Unidentified man with white chin whiskers, ca. 1880
Tintype (pennellograph)
Image/ Overall: 21.7 x 16.8 cm (Whole plate)
Gift of Alden Scott Boyer
1982:1535:0001

Figure 4:

Unidentified Photographer
Anthony Lechleitner, ca. 1890
Tintype with overpainting
Image/ Overall: 21.3 x 16.2 cm (Whole plate)
Gift of Kathrine Lechleitner
1982:1531:0001

Figure 5:

Unidentified Photographer
Abby Lechleitner, ca. 1880
Tintype with overpainting
Image/Overall: 21.7 x 16.5 cm (Whole plate)
Gift of Kathrine Lechleitner
1982:1531:0002

Figure 6:

Unidentified Photographer
Unidentified girl, ca. 1895
Tintype with overpainting
Image/ Overall: 21.5 x 16.6 cm (Whole plate)
Gift of Glenn Hamilton
1982:1538:0001

Figure 7:
Unidentified Photographer
Civil War officer, ca. 1863
Tintype with overpainting
Image/ Overall: 21.5 x 16.2 cm (Whole plate)
Purchased from Zelda P. Mackay
1969:0208:0049

Figure 8:
Unidentified Photographer
Civil War bugler, ca. 1863
Tintype with overpainting
Image/ Overall: 25.3 x 19.3 cm (Whole plate)
Purchased from Zelda P. Mackay
1969:0208:0051

Figure 9:
Unidentified Photographer
Two men and two women, ca. 1861
Tintype with overpainting
Image/ Overall: 35.3 x 25.5 cm (Mammoth plate)
Gift of Harry Servise
1971:0015:0001

Figure 10:
Unidentified Photographer
Unidentified young couple, ca. 1875
Tintype with overpainting
Image/ Overall: 35.3 x 25.2 cm (Mammoth plate)
Gift of Alden Scott Boyer
1982:1546:0001

Figure A:
Unidentified Photographer
Middle-aged man with tinted necktie, ca. 1895
Tintype with applied color
Image/ Overall: 21.6 x 16.4 cm (Whole plate)
Purchased from Zelda P. Mackay
1969:0208:0043

Introduction

Tintypes, though not very prominent in generalized histories of photography, were an immensely popular kind of photograph in the second half of the nineteenth century. They were inexpensive and quickly produced; preceding the photo booth, the Polaroid and the digital snapshot, they were the instant photographs of their day. These qualities made them attractive for a class of people that would increase and become influential during the century to come – the lower middle class. While tintypes were produced in all sizes and presentation forms, the focus of this thesis will be on the larger completely overpainted tintypes that were not carried around, worn as jewelry or sent through the mail but matted, framed and hung on the wall comparable to the painted family portrait of the upper classes.

The following descriptive analysis will concentrate on a small selection of examples from the George Eastman House collection, all single or family portraits, full plate to mammoth plate, unattributed and devoid of their original mat and frame. This selection, though varied, is characterized by a hybrid appearance. It unites qualities attached to the very nature of photography right at its invention, such as the exact depiction of detail and the reproduction of reality¹ with painterly attributes related to the interpretation of subject matter and materiality of paint itself. The combination of both media produces a fascinating object that is both but also neither one. They create an object with which to remember a particular person as this person existed in reality, an

¹ Both François Arago and William Henry Fox Talbot praised in the early accounts on photography its ability to produce images with the “[...] utmost truth and fidelity [...]” (W.H.F. Talbot, *Some Account of the Art of Photogenic Drawing, or the Process by which Natural Objects may be made to Delineate Themselves without the Aid of the Artist’s Pencil*. Read before the Royal Society January 31, 1839. (London: R & JE Taylor, 1839) Reprint, 3-4.

attempt to represent this reality in color only available through hand-coloring, and the indication of a desire to own a visual manifestation of one's own family history.

As the combination of the two media at a historical moment of important social change suggests, the review of these images is complex and could be undertaken emphasizing a multitude of aspects. This thesis will focus on understanding their hybrid look by examining the meaning and importance of the detailed reproduction of nature and honest visual perspective in nineteenth century photography, and by considering these qualities in relation to the function of these tintypes as mementos. For Siegfried Kracauer, photography and memory are incompatible. According to him photography captures information too detailed and without discrimination, whereas memory is a selection of images important for us.² Is an overpainted photograph, in which most of the image's details have been obliterated, in consequence better fitted to be used as a memento? From today's point of view these photographs look almost abstract, a quality that nobody would want for a family portrait. That they were so popular, signals that they were perceived differently, not as whimsical objects but as an appropriate representation. A representation of what one might ask? Could this hybrid look have been just right to describe a rising class that was still in transition and was absorbing a number of different aesthetics in order to form their own?³

This paper shall help further investigate one aspect of vernacular photography; a category that functions according to Geoffrey Batchen as *parergon*,⁴ something that is

² Siegfried Kracauer, "Photography (1927)," in *The Mass Ornament: Weimar Essays*, ed. Thomas Y. Levin (Cambridge: Harvard University Press, 1995), 47-63.

³ Timm Starl suggests in "Nach dem Stillstand: Zu den ersten Versuchen, Bewegung ins fotografische Bild zu setzen" *Fotogeschichte*, issue 121 (2011): 9, that the constant increase in speed of production, news transmission and everyday life in general created an interest in a type of photography where the object would appear frozen in movement, and time therefore would be presented as stopped. Would it not be possible to think about the opposite, to consider that aesthetics are a product of social spheres and therefore mingle when those spheres come in contact with each other?

⁴ Geoffrey Batchen, *Each Wild Idea* (Cambridge, Mass., London, England: MIT Press: 2001), 58.

not considered of intrinsic value to the history of the medium but shapes this history nevertheless.

Definitions and methodology

As seen in *The American Tintype* by Floyd and Marion Reinhart, the terminology used to describe colored photographs is used interchangeably, a common practice that can be confusing to the reader. The number of different coloring techniques makes it imperative to clarify our terms. Colored tintypes were produced using techniques such as overpainting, tinting, electrolytic processes and employing colored iron plates. However, the majority of the larger colored portraits that I will discuss were produced through completely overpainting the photographic image with what were most likely oil colors.⁵ In some cases, the outlines of the figures were drawn in India ink and the more delicate



Figure A; 1969:0208:0043

facial features were added in what appears to be dry pigment. I will address the particular techniques in more detail later in this paper.

As Heinz and Bridget Ann Henisch state, for enlargements, which were produced to resemble traditional portrait painting in size, overpainting was most likely employed because the final product was to indeed mimic a painting and the photographic source was not intended to shine

⁵ Stanley B. Burns, *Forgotten Marriage: the Painted Tintype and the Decorative Frame, 1860-1910: a Lost Chapter in American Portraiture* (New York: Burns Press, 1995), 57.

through the applied layers of paint.⁶ In contrast, tinting, characterized by the addition of color to only some parts of the image usually jewelry, lips and cheeks or the costume⁷ (figure A) was in most cases done using dry pigments to which gum arabic had been added to make the color stick. Electrolytic processes and colored plates are not of interest for my analysis since both techniques give only a different background color to the image; no additional paint is applied on top of the photographic image.

In this paper I will compare and contrast a selected group of ten painted tintypes from the George Eastman House collection, which share a distinct look. Using contemporary sources, I will contextualize the painted tintypes' aesthetics with the social changes that took place during their period. Instead of focusing on their mode of production, my research will focus on their use as mementos within the family and position them in a visual culture influenced by the technological advancements of the Victorian era and their philosophical implications.

⁶ Heinz K. Henisch and Bridget A. Henisch, *The Painted Photograph 1839-1914: Origins, Techniques, Aspirations* (University Park, Pa.: Pennsylvania State University Press, 1996), 156.

⁷ Janice G. Schimmelman, *The Tintype in America 1856-1880*, (Philadelphia: American Philosophical Society, 2007), 93.

Literature survey

A number of publications about tintypes have been produced in the last two decades. The majority of them focus either on a particular private collection or on contemporary artists who use the process. The technical history, subject matter or the social meaning of the process is typically addressed; seldom are the aesthetics dealt with. Few publications consider such modifications of tintypes as tinting and overpainting. Currently, there are only two books available that specifically focus on the painted tintype.

In general histories of photography, tintypes seldom receive more than brief attention. Beaumont Newhall notes their casual nature and low price due to inexpensive material and quick production method. His account is dismissive; for him tintypes lack all sophistication.⁸ In Helmut and Alison Gernsheim's seminal publication of 1969, the tintype is described with disdain for the same reasons.⁹ Michel Frizot in contrast includes the ferrotype in his thoughts about "Rituals and Customs: Photographs as Memories." He appreciates tintypes as part of vernacular photography about whose playful variations he writes in his concluding paragraph: "Only popular photography could accept to such a degree being merely a packaged form of reality wrapped up in fantasy, [...]"¹⁰ Naomi Rosenblum and Mary Warner Marien both address the tintype only in passing,

⁸ "Tintyping was usually casual; when the results have charm it is due to the lack of sophistication and to the naïve directness characteristic of folk art." Beaumont Newhall, *The History of Photography*, (New York: Museum of Modern Art, 1964), 49.

⁹ Gernsheim writes: "In spite of the great stress which was laid on their strength compared with glass plates, these hideous, cheap-looking pictures failed to establish themselves in England, [...]" Helmut and Alison Gernsheim, *The History of Photography*, (London: Thames and Hudson, 1969), 238.

¹⁰ Michel Frizot, *A New History of Photography*, (Cologne: Könemann, 1998), 754.

emphasizing its rising importance during the American Civil War.¹¹ Finally, *The Oxford Companion to the Photograph* characterizes tintypes as “appearing rather dark and not showing up well on the black surface” and farther back in the entry addresses the fraudulent practices of some itinerant tintypists. However, in the last paragraph Hope Kingsley values tintypes as encouraging more casual poses, providing information about nineteenth century society and looking forward to snapshot photography.¹²

The first book entirely devoted to tintypes was published in 1999.¹³ The title *The American Tintype* points to one of the repeated messages in the publications that would follow: the fact that the tintype was most practiced in the United States. Using primarily examples from their own collection, Marion and Floyd Rinhart concentrate on the history of the process and give examples of its use arranged by subject matter. Their focus is on invention and production, different forms of presentation and the corresponding patents and standards. As later publications would echo, the Rinharts underscore the Americanness of the tintype and its social implications. However, they also mention the tintype’s similarity to snapshot photography and its use as a memento.¹⁴ Among the illustrations there is a small selection of painted tintypes in the chapter about finishing, coloring and advertising in which the tintypes’ appearance is briefly characterized as similar to primitive paintings. Since the book does not concentrate on manipulation, there are no clear distinctions made among techniques such as tinting, overpainting and the use of colored plates.

¹¹ Naomi Rosenblum, *A World History of Photography*, (New York: Abbeville Press Publishers, 2007), 59 and Mary Warner Marien, *Photography: a Cultural History*, (New York: Harry N. Abrams, 2002), 93.

¹² Hope Kingsley, “tintype,” in *The Oxford Companion to the Photograph*, edited by Robin Lenman, (Oxford; New York: Oxford University Press, 2005), 626-628.

¹³ Floyd and Marion Rinhart & Robert W. Wagner, *The American Tintype*, (Columbus: Ohio State University Press, 1999).

¹⁴ The book quotes Beaumont Newhall as saying the following: “[...] In the days before the snapshot camera, it was the tintype man who made souvenirs of you [Alice Lillia Davis, Newhall’s mother] and your best friend riding sidesaddle, or that day when the gang piled into the victoria for an afternoon of tennis. [...]” Rinhart and Rinhart, *The American Tintype*, 104-5.

The tintype's most striking qualities such as its rapidity of production, cheapness, the resulting availability to all social levels and the accompanying change in aesthetics are reflected in Janice Schimmelman's 2007 *The Tintype in America*. In it, the art historian compares the direct and unadorned depiction of the sitters to the image of America's population created by Walt Whitman in his poem *I Hear America Singing* (1867). For her, tintypes are "[...] fascinating photographic prose."¹⁵ Schimmelman sees the tintype's popularity as inherently linked to the American appreciation of machine-made goods, technical innovation and a distrust of aristocratic values as reflected in academic art. Schimmelman proposes the tintype as a "Democratic Portrait."¹⁶ She addresses in detail the process's history and analyses its reputation, both from a social and art history standpoint. In her book, the message of the image content and the employment of the process are the most important aspects of the tintype.

The social implications of the tintype are also the focus of Peter E. Palmquist in *Frozen in Iron*. The collector and independent historian focuses on the instant quality of the tintype and also compares it to twentieth century photographic practice.¹⁷ His publication is mainly a picture book with a small introductory text before each chapter. Interestingly, the images are all reproduced in the same size no matter what the original size of the plate. Image-content and subject matter define this publication; the tintype as material object is non-existent. Palmquist states that the tintype was an American invention, which is not completely accurate but indicates the process's great popularity in the United States. The process had originally been invented in France in 1853 but did not

¹⁵ Schimmelman, *Tintype in America*, 1.

¹⁶ Ibid, 191.

¹⁷ Palmquist claims that gem tintypes were particularly popular among young people as were wallet-size portraits between high school students in the mid 1950s. Peter E. Palmquist, *Frozen in Iron*, (Arcata, California: P. E. Palmquist, 2001), vi.

become popular in Europe and, though it was used to a certain degree, never caught on as it did in the United States.¹⁸

Ubiquity and curious forms of representation are also the focus of another collector and art dealer, Andrew Daneman. Like the Rinharts, he reflects on the tintype's popularity by referring to the nineteenth century saying "Not on your tintype," which is also the title of his publication. According to them, it was used as today's "No way!" reacting to "some more unlikely [...] situations."¹⁹ Daneman sees tintypes catering to his taste for images that are offbeat, unusual and allow for odd composition. His book centers on their snapshot aesthetic and on the freedom of expression that they provided. When he says, "the instantaneous and inexpensive tintype gave the American public a vehicle for acting out rituals psychological [...],"²⁰ he takes a position similar to Karen Halttunen's essay in the volume *America and the Tintype*.

For Halttunen, Victorian Americans were shaped by a "cult of sincerity"²¹ that was the outcome of upper class efforts to establish a clear distinction between themselves and social climbers. A coded system of refined behavior had been implemented, which would help to maintain borders between social classes. She describes the result as a "genteel performance" ²² defined by restraint and the avoidance of excessive expressiveness. She argues that this convention had faded by the 1850s but that the public by then had started to parody it in photographs by demonstrating silly behavior. Halttunen sees a connection between the serious upper class performance of the self and lower class occupational tintype portraiture, which is among the most popular subject matter in tintypes for current collectors and tintype publications. She concludes

¹⁸ Rinhart and Rinhart, *The American Tintype*, 7.

¹⁹ Rinhart and Rinhart, *The American Tintype*, 3.

²⁰ Andrew Daneman, *Not on your Tintype* (Denmark: Northern Light Gallery Aps, 2007), 9.

²¹ Karen Halttunen, "American Tintype Portraits and the Decline of Victorian Middle-Class Propriety," in Steven Kasher, *America and the Tintype*, (New York: International Center of Photography; Göttingen: Steidl, 2008), 28.

²² Ibid.

that what is often considered as plainness can also be regarded as a reaction to the upper class ideal of a refined simplicity.

Geoffrey Batchen is one of the few scholars who persistently researches the field of vernacular photography. His texts are distinct because he focuses on understanding photographs as tangible objects related to defined, sometimes ritualized social interactions. His emphasis on material culture results in descriptions of the physical object that are different from the perspectives underscoring technical history. In *Forget Me Not*, Batchen concentrates on vernacular photographs' power as mementos. Addressing painted tintypes, he notes the hybridity that is created by merging two media that refer to realistic depiction in two very distinct ways. Thus, he writes, a palimpsest is formed, "an erasure which allows what it obliterates to be read."²³ In his essay "The Art of Business" for *America and the Tintype*, Batchen does not address alterations in photographs but treats them as products related to capitalism and consumerism.²⁴ In that regard he mentions another aspect that complicates the tintype's status; the fact that in most cases nothing is known about their maker, and that their provenance has been lost. Like all vernacular photographs, they resist any notion of rarity.

Photographers have been interested in color since photography's invention. The first statements about daguerreotypes mention the regrettable lack of color of the otherwise perfect delineation of nature.²⁵ In 1995 the collector Stanley Burns published the only book on painted tintypes to date. His book was issued in conjunction with a series of exhibitions about the topic that toured through the United States and Canada

²³ Jacques Derrida, *Positions*, trans. Alan Bass (Chicago: University of Chicago Press, 1981), 6. quoted in Geoffrey Batchen, *Forget Me Not* (Amsterdam: Van Gogh Museum; New York: Princeton Architectural Press, 2004), 20.

²⁴ Geoffrey Batchen, "The Art of Business," in Kasher, *America and the Tintype*, 20.

²⁵ Heinz and Bridget Henisch quote François Arago: "[...] if only this method preserved colours; but I must hasten to explain, in order to undeceive the public, that in M. Daguerre's copies as in a pencil drawing, an engraving, or, to make a more exact comparison, in an aquatint engraving- there are only white, black and grey tones representing light, shade, and half-tones." François Arago, *Comptes rendus de l'Académie des Sciences*, vol. VIII, January 7th 1839.

from 1993 to 1997. Burns claims that traditional portrait painting was not replaced by photography but by painted photography. He also emphasizes the social meaning - in his words the "social utility"²⁶ - of painted tintypes, a version of painted portraiture that everybody could afford. For Burns, as photography democratized portraiture in general, the painted tintype democratized painted portraiture. Burns states that the painted tintype's aesthetic is very closely related to folk art painting: expressiveness, figural distortion and multiple perspectives are key qualities of folk art painting that can also be found in painted tintypes.²⁷ He addresses the history of the production but does not interpret the final result as a hybrid in the way that Batchen does. Burns sees the reason for the distorted perspective of the tintype as a result of the photographer's lack of training; he does not refer to the aesthetics of the final product. Burns does not raise questions about concepts of realism or realistic representation. However, his understanding of the relation between painting and photography is different from the general view. Burns does not accept a clear separation of the two media and sees this separation as an invention of the twentieth century.²⁸ He points out that painted photography, in the form of painted tintypes and later crayon portraits, was very common and therefore should not be omitted from the history of photography. In the case of vernacular photography, it is exactly the omnipresence and apparent inexhaustible availability that makes its study difficult.

Art historians Heinz K. and Bridget A. Henisch point to an obvious contradiction in painted photography, the blending of a medium that was praised for recording unmediated reality with one that was appreciated for interpreting the visible world.²⁹ They give multiple reasons why photographs have been colored: to remedy fading or

²⁶ Burns, *Forgotten Marriage*, xix.

²⁷ Burns, *Forgotten Marriage*, 25.

²⁸ Ibid, 65.

²⁹ Henisch and Henisch, *The Painted Photograph*, 12.

problems of emulsion speed, to respond to expectations created by earlier conventions of composition, or to present a more familiar look to the public. Though mainly concentrating on the different supports and coloring techniques used, the Henisches address questions of perception of reality and representation as they were raised in contemporaneous debates. They claim that the lack of color that photography was criticized for was only one of two major drawbacks. The second critique was of photography's indiscriminate recording of reality. Traditional portraiture had offered the possibility of enhancing the look of the sitter's features; photography was merciless in that respect. This new quality in representation reinforced the discussion that already existed in painting regarding the appropriate depiction of reality in general and not only in portraits.³⁰ In a brief description of painted tintypes in the chapter "Color on Hard Media" the Henisches mention the possibility of editing the subject by using oil paint and state that painted tintypes were often produced as enlargements from smaller ones.

The publications discussed above are all mostly concerned with explaining the technical history of tintypes, emphasizing their Americanness as "America's own photograph"³¹ or underscoring their socio-historical meaning. Rarely and only in part do they deal with the questions raised by the aesthetic of a nineteenth-century mixed-media product that was used widely by the general public. They do not concentrate on concepts of realism and representation or theories of perspective and detail. Understanding an object from the conditions of its production is important but it is as important to suggest how this product was perceived. How was it possible to regard this hybrid of photography and painting as a self-contained entity that could serve as an acceptable portrait? This question points to our understanding of photographic realism and its connection to the

³⁰ Jonathan Friday juxtaposes two different concepts of vision: the Albertian and the Keplerian. Jonathan Friday, *Aesthetics and Photography* (Aldershot, Hants, England; Burlington, VT: Ashgate, 2002), 10.

³¹ Burns, *Forgotten Marriage*, 33.

representation of reality, a complex and not unambiguous connection. My thesis will focus on the appearance of painted tintypes, not on their production method. I will examine the selected examples in relation to Victorian society and plan to contextualize them as part of nineteenth century visual culture.

A short history of the tintype

Adolphe-Alexandre Martin invented the basis for what would later become known as the tintype process in 1853 in Paris. Drawing on Frederick Scott Archer's observations on how to produce a collodion positive image on glass, he experimented in the same direction and presented two different papers about his discoveries to the Académie des Sciences; one in 1852 on collodion negatives on glass backed with dark velvet or dark varnish and the second on collodion negatives on black-varnished metal plates. Martin had chosen metal because of his interest in providing the printing industry with a durable plate that could be etched. Although he understood that images on metal had numerous advantages such as durability and lightness, he did not suggest the use of his invention for commercial photography.³² Offered mainly in amusement parks and at fairs, Martin's process would never become as popular and widespread in Europe as it did in the United States. As Robert Taft notes, as late as 1873 the eminent photo chemist Dr. Hermann Vogel defined the tintype as particularly American and scarcely known in his native Germany.³³

Three men were most notably involved in the introduction of the tintype in America: Hamilton L. Smith, Peter Neff Jr. and Victor M. Griswold. As an astronomer and physicist, Smith had been interested in photography since its publication. He was aware of Martin's experiments through their publication in the journal *Annals of Science*, a journal that he collaborated on. Smith and his assistant Neff improved Martin's process through using sheet iron instead of the suggested copper or steel and japanning it instead of using the common engraver's varnish and air-drying it. The term japanning, a method of varnishing a surface for durability and polish, points back to the Asian

³² Schimmelman, *Tintype in America*, 30.

³³ Robert Taft, *Photography and the American Scene: A Social History, 1839-1889* (New York: The MacMillan Company, 1938), 164.

lacquerwork that had made the process popular. Smith's varnish consisted of asphaltum, linseed oil and turpentine to which lampblack and umber were added for color. The plates were placed in a drying oven and polished afterwards. Plates produced this way were cheaper and harder than Martin's. The patent Smith filed in 1856 and subsequently assigned to Neff covered "Photographic Pictures on Japanned Surfaces" but not the production of the plates. This omission would prepare the ground for the later competition between Neff, Griswold and other manufacturers. Besides the controversy about the rightful use of the patent and the consequent decrease in Neff's original licensing fee, the early competition between the two main providers of plates probably led to the development of the name we still use for the process today: the tintype. Neff had named his product melainotype (*melainos* meaning dark or black in Greek). When Griswold advertised his plate in 1859, he introduced the term ferrotype. As Janice Schimmelman states, the name tintype had been used in 1863 for the first time.³⁴ Originally, it described the smallest and cheapest format of collodion images on metal, the so-called gem, ca. 2.5 x 1.2 cm in size and made for jewelry and miniature albums. It seems that due to the conflict around the two patented names, the public decided to employ a neutral and plausible third alternative. The colloquial expression reflects a quality that the tintype was appreciated and criticized for: its cheapness.

As the least expensive photographic process, affordable for everybody and quickly produced, the tintype became ubiquitous. Its use for campaign buttons in the election of 1860 and the need for portraits of the men who had been drafted to the army during the Civil War years raised its popularity even further.³⁵ The atrocity of the war emphasized the need for a memento, one that could be easily shipped and that would reach its addressee without fail. Ambrotypes and paper photographs were too fragile and

³⁴ Schimmelman, *Ibid.*, 125.

³⁵ Taft, *Photography and the American Scene*, 158-160.

thus too difficult to ship, so it was the tintype that separated friends, families and lovers relied on. However, the process's quickness, cheapness and the sturdy final product did not only play an important role in the serious or dark moments of life; the straightforwardness of the process also allowed for a more playful behavior in front of the camera.³⁶ Simpler studios and traveling tintypists created an environment that the general public found affordable and approachable. The images often appeared more instantaneous and prefigure the snapshot aesthetic. The process was most popular from the 1860s until the 1880s but continued to be offered into the 1920s, then mostly as an oddity at leisure resorts.

As an inexpensive and unpretentious product for the masses, the tintype received harsh criticism in the photographic journals of its time and hostile reactions from professional photographers who wanted photography to be seen in the realm of art and disliked its commercial exploitation. Nevertheless, there were also positive accounts. In his successful book *The Ferrotypes and How to Make it*, Edward M. Estabrooke described the tintype as approaching in excellence the daguerreotype only lacking its brilliancy.³⁷ The sentences that follow might provide an explanation for why the tintype was rejected so briskly by reputable photographers. Estabrooke refers to the tintype as a "[...] picture for the million, [...]" and identifies the potential clientele as "[...] hurried business men, impatient travellers, anxious to catch a train [and] friends about to part, [...]." The image he conjures seems like a very graphic illustration of everyday life marked by the changed pace caused by the Industrial Revolution. Alan Trachtenberg quotes William Dean Howell as commenting on the changing social order in the late 1880s: "The pride of caste

³⁶ Rinhart and Rinhart, *The American Tintype*, 151.

³⁷ Edward M. Estabrooke, *The Ferrotypes and How to Make it* (Hastings-on-Hudson, NY: Morgan & Morgan Inc., 1972), 22.

is becoming the pride of taste; but, as before, it is averse to the mass of men; [...].”³⁸ The tintype as an inexpensive image produced for the masses embodied these social changes; it signifies an appreciation of an image without an identified author, catering to people who were about to establish an idea of their visual representation. Due to the positive process, every tintype is a unique object but in a very different way compared to the uniqueness associated with objets d’art. Mass production levels the perception of the objects’ value; popular culture items lose what Walter Benjamin defines as aura. This process democratizes and devalues them at the same time. Objects unique to an enormous number of anonymous people appear to be incapable of attaining the sort of uniqueness attached to objects that belong to a selected leading social group. Following this idea, tintypes are mentioned in the literature repeatedly as democratic but also emphasized for their oddity. In their social significance, tintypes might point to a change that indeed was as important as the inventions it is compared to in Scovill’s *A Ferrotyping’s Guide*: the telegraph, the railway and the steamboat.³⁹

³⁸ Alan Trachtenberg, *The Incorporation of America: Culture and Society in the Gilded Age* (New York: Hill and Wang, 1982), 184.

³⁹ An Active Ferrotypist, *A Ferrotyping’s Guide: A Complete Manual of Instruction in the Art of Ferrotyping* (New York: Scovill Manufacturing Company, 1878), 5.

Photography and painting

Painted tintypes combine the different aesthetics of painting and photography. Both media are very distinct in how they are understood and in what meaning is ascribed to them.⁴⁰ Since its invention, photography had been regarded as connected more to science and technology than to art.⁴¹ It has primarily been described as a true to life recording, creating a neutral document. Therefore, portraiture was regarded as only one among many tasks of photography and not as its most important. Because of its richness of detail, photography was even mistrusted as a means of portraying people.⁴² This criticism, accusing photography of depicting people in a ruthless manner, lasted and in fact is still present today. It originates in photography's particular production process. Before photography, portraiture was the realm of painting or other media that were produced manually by an artist or artisan. Photography introduced optics and a chemical process to representational depiction.

As a mode of depiction, painting functions on a different basis than photography. Paintings reflect how an artist saw a person or object and wanted to render this experience. They are intentional interpretations of a real or imagined situation. For the production of a painting the object to be depicted does not necessarily have to be

⁴⁰ Jonathan Friday describes in detail how photographs and what he calls "manographs," i.e. engravings, paintings, etchings, differ from each other in meaning and production. Jonathan Friday, *Aesthetics and Photography* (Aldershot, Hants, England; Burlington, VT: Ashgate, 2002), 37-46.

⁴¹ François Arago concentrated in the report that he presented to the chamber of deputies on July 3, 1839 on photography's usefulness for the sciences. In Alan Trachtenberg, *Classic Essays on Photography* (New Haven: Leete's Islands books, 1980), 15-25. Alexander von Humboldt described photography's advantage for architects, who would, because of the invention, be able to obtain an image of the Baalbeck portico or all the details of gothic churches in perspective in ten minutes. In Wilfried Wiegand, *Die Wahrheit der Photographie: Klassische Bekenntnisse zu einer neuen Kunst* (Frankfurt am Main: S. Fischer, 1981), 19-22.

⁴² Lady Elizabeth Eastlake criticized photography as containing too many details and not being able to distinguish between important and unimportant image content. In Alan Trachtenberg, *Classic Essays on Photography* (New Haven: Leete's Islands books, 1980), 39-68.

present. And even if it had been, the finished painting would still not have to be an account of how it actually looked. The art of portrait painting focused on the emphatic summary of a person or scene by a sensitive artist. Painted portraiture was meant to depict the sitters' inner and outer qualities, their character and essence. As Stephen Kern notes, a painting should reflect the history of a person, summarize formative experiences and emphasize significant aspects of the sitter's appearance.⁴³ Furthermore, the medium's relation to time is significantly different from that of photography. In contrast to photography, a painting is produced over a length of time that can include several sittings. While working on it, the artist can incorporate additional ideas, rethink his or her approach and get a better understanding of the sitter. It embodies a stretched idea of time.

Photography deals with time in a very different way. Instead of incorporating time in the process of production, photography isolates a fraction of time, thus freezing the moment when an image is taken. Human intervention is limited to the choice of frame and light; the subject appears in the image as it looked at the moment when the photograph was taken. There is no immediate possibility of editing the sitter's features. The finished photograph is thus perceived as connected to a real situation in life; it is trusted as conveying the look of a person the same way a painting is trusted as conveying the status and history of a person. Furthermore, because of its mechanical origin, in photography there is no choice of perspective. Because cameras function according to optical principles similar to the eye, photographs depict their subjects always in geometric perspective. This places them in a defined spatial construction, which further manifests the existence of the depicted person in a particular moment at a

⁴³ Stephen Kern, *The Culture of Time and Space 1880-1918* (Cambridge, MA: Harvard University Press, 1983), 21.

particular place. If painting materializes a deliberately figurative idea, photography has no choice but to record what was there and it depends on causality.

Employing mathematical exactness to portray a person without adding an additional interpretational layer has been criticized since the introduction of geometric perspective in the Renaissance. The pure unmediated depiction was regarded as unrefined and as raw expression of worldly details that were not worth being captured for posterity.⁴⁴ Only the contribution of the human spirit, expressed through the hand of the artist, which interpreted raw reality, was acceptable. Before the invention of photography, this distinction led to the debate between Italian and Northern Renaissance painting schools. This discussion attests to an inherited discomfort with mathematical precision in human portraiture. A successful portrait was meant to be intentionally interpretive; pure indexical depiction lacked mindful intervention.

Painted tintypes thus unite two modes of representation that evoke very different expectations. The photographic image seems to guarantee a truthful portrait while the addition of paint allows for editing and adds color, another element connected to realistic perception as well as to interpretation. The rich photographic detail gets reduced to a summary of features that were seen as significant. The final product oscillates between assuring us of the existence of the depicted person and at the same time we are looking at a unique interpretation of somebody's looks. Painted tintypes make clear the indexical value of photographs; this portrayed person could never have existed in real life as depicted. This is part of the fascination and wonder that they cause. These hyper-real eyes never looked back at somebody in real life. The young woman whose face is the same color as her dress resembles a ghost rather than a person. Yet, her image was accepted as a portrait. Usually, we expect a photograph to capture reality. Painted

⁴⁴ Friday, *Aesthetics and Photography*, 11.

tintypes use the image that had been taken only as a starting point. The image functions as a sign rather than a document.⁴⁵

One important function of portraiture is to remember beloved ones and to create a visual history of one's ancestors.⁴⁶ Memory is necessarily rooted in the past, connecting past and present through the act of remembering. Somebody far away or dead can thus still have presence. Usually, photographs show a person in a recognizable environment that locates the portrayed in a particular place and time. In photographs using a neutral background, location is undefined but still existent. Place itself relates to time. In reality, we are situated in a certain place at a certain time. Photography usually confirms this relation. In the selected ten painted tintypes, the background is covered with opaque paint or rubbed off. The depicted person is not shown connected to a particular place. The portrayed becomes detached from any location and is therefore not confined to a defined time in the past anymore; the causal relation between time and space is dissolved. The painted tintypes' particular appearance allows them to function more efficiently as mementos. They become able to transcend the limiting boundaries of time and place and become time travelers, assuring their owners of the beloved person's imagined constant presence.⁴⁷

⁴⁵ Ernst H. Gombrich explains that human perception summarizes key facial features and that recognition of a human face is thus based rather on this keydata than on a meticulous true to nature depiction. "The Mask and the Face: The Perception of Physiognomic Likeness in Life and in Art." In his *The Image and the Eye: Further Studies in the Psychology of Pictorial Representation* (Ithaca: Cornell University Press, 1982), 105-136.

⁴⁶ Batchen, *Forget Me Not*, 8-12.

⁴⁷ Interestingly, also spirit photography became popular during the second half of the nineteenth century. Louis Kaplan, "Spooked Time: The Temporal Dimensions of Spirit Photography," in *Time and Photography* edited by Jan Baetens, Alexander Streitberger and Hilde van Gelder (Leuven: Leuven University Press, 2010), 27-45.

Painted photographs

Painted tintypes represent one of the varied forms of painted photography, as it existed in the nineteenth century. According to Henisch and Henisch, introducing color to the black and white image had been of interest since the invention of photography.⁴⁸ That nature “drew itself” without any color surprised the public and was considered one of photography’s flaws since the early processes also had difficulties correctly reproducing tonalities.

Despite painted photographs being common and demanded by the public, the introduction of paint provoked conflicting judgments in professional circles. It also complicated the assessment of photography as belonging either to art or to science. Tinted daguerreotypes, housed in locketts or ornate cases, blur the borders of the earlier tradition of miniature painting. Miniatures, which had been popular in the United States from the late seventeenth century, can be viewed as fulfilling the same purpose as other keepsakes. The small format defines the interaction with the depicted person as intimate and private. However, painted photographs did not exist only in small formats. With the introduction of paper prints, larger measurements became possible and photographic portraiture started to emulate the presentational form of painted portraits. Besides satisfying the wish for life-like color and the possibility of editing undesirable blemishes, applied paint on paper photographs showed one particular benefit; it not only enhanced the picture, it also preserved it from vanishing through fading. Permanence was a major concern for photographers, and using pigments that were known to be stable on top of the more fleeting photographs was one way to improve their stability. Early photographs were not able to capture movement or environments that were either very bright or dark due to the low sensitivity of the plates; drawing and painting were thus also used to add

⁴⁸ Henisch and Henisch, *The Painted Photograph*, 1-19.

moving figures, moonlight and clouded skies to the scene. As Burns suggests, the idea of mixing photography and painting, altering a photograph and adding something non-photographic, was not as foreign to the nineteenth century viewer as it seems today.⁴⁹

Contemporaneous records about painted tintypes are rare.⁵⁰ Manufacturers' labels found on the verso of intact-framed examples provide information about single studios and patents but even this information is questionable.⁵¹ The painted tintype, often described as a cheap version of painted portraiture for the aspiring middle class in rural areas, was supposedly produced by single artisans or small workshops and sold by traveling salesmen. In contrast to daguerreotypes, whose production is much better documented because of their higher social status, only few tintypists are among the famous photographers and the few names attached to painted tintypes are disconnected from any information about studios or biographies. Despite describing them as popular and commonly produced, Burns and Henisch do not give any numbers. Due to the lack of documentation, it is difficult to properly describe the different techniques that were used to apply the paint and the coloring itself. Burns uses his visual observations to attach production information to the labels he found on the verso of his collection but since no contemporaneous document confirms his views, these descriptions remain well-informed speculations. He lists a multitude of trademark names: Electrograph portraits, Oilographs, Pennellographs and Silvertypes to name only a few. The variety of names might have to do with a growing interest in science and new technology in the nineteenth century that led to a weakness for names that sounded technical or science-related.⁵² It

⁴⁹ Burns, *Forgotten Marriage*, 65.

⁵⁰ Burns mentions this fact in *Forgotten Marriage*; and my research in journals and patent records supports his opinion.

⁵¹ My research about two particular patents concerning the "Pennellograph" and the "Ferro Chromo" showed that despite mentioning patent dates on their labels the two patents cannot be found in the records.

⁵² The term Electrograph, though used in a very different sense, even appears in a scientific romance novel by Marie Corelli. Therein, in a conversation with her guardian angel, the main female character asks about the nature of the moon, which is then described by Heliobas as

might also relate to efforts to patent processes and secure trademarks names. It appears that the vast majority of painted tintypes were painted in oil, probably because it adhered best to the metal surface. In some cases, the iron sheet received an overall tint, before paint was applied, through electrolytic processes. Crayon and pastel were also used, producing a fragile surface that needed to be protected under glass. The painted tintypes selected for this essay have been detached from their original frames and mats; all identifying information that might have been attached has been lost. As I will mention in the *Descriptions* section, the primary paint used was oil paint, but no specific trademark or patented names can be definitely attributed. The background in all examples but one was painted in a significantly matte paint (detail of figure 4), which appears to be similar to the one sign painters used.⁵³



Detail of figure 4

follows: “[...] The moon does not exist. What we see is the reflection or the electrograph of what she was. Atmospherical electricity has imprinted this picture of a long-ago living world upon the heavens, [...]” Marie Corelli, *A Romance of Two Worlds* (New York: Optimus printing company, 1887), 150.

⁵³ Mark Osterman, conversation with author, 22 March 2012.

This similarity points to a kinship with one earlier form of painted portraiture, folk art painting. Folk art painters were usually not formally trained but pursued the trade of sign, coach or house painting and offered portraits as a side business. Working in the rural areas of the United States, cut off from the European influence in the big cities on the East coast, they created an original creative vocabulary of forms and color.⁵⁴ The flatness of the majority of folk art paintings seems to be echoed in painted tintypes.⁵⁵ Another similarity is the simplified depiction of the sitter's face. This stylization and the fact that the constituent parts of the image are combined in a distorted perspective in both cases, gives folk art portraits as well as painted tintypes a strong decorative quality, which can be described as abstract from a contemporary point of view. In contrast to miniature painting, which catered to a well-off and more established clientele, folk art portraiture was produced for the emergent middle class, which had reached a state of self-confidence and developed a wish to document its status for posterity due to economic prosperity achieved after 1800.⁵⁶ The function of preserving and documenting ancestry was resumed by photography in the mid-nineteenth century and eventually ended the older traditions.

⁵⁴ Jean Lipman and Alice Winchester, editors, *The Flowering of American Folk Art (1776-1876)* (Philadelphia, PA: Courage Books, 1987), 21.

⁵⁵ According to Robin Jaffee Frank, the lack of shaping shadows not only indicates missing skills on the painters' side; it also reflects the importance of religious and philosophical implications in popular visual culture. "[...] light served as a metaphor for whatever a particular group considered to be the appropriate combination of rational understanding and divine inspiration." Robin Jaffee Frank, *Love and Loss: American Portrait and Mourning Miniatures* (New Haven, CT: Yale University Press, 2000), 280.

⁵⁶ Robert L. Polley, editor, *America's Folk Art* (Waukesha, WI: Country Beautiful Corporation, 1971), 156.

Description of ten painted tintypes from the George Eastman House collection

The George Eastman House collection contains twenty-one painted tintypes, eighteen full plates and three mammoth plates.⁵⁷ I decided to work with a selection of ten because the varied techniques and poses were well represented in this smaller sample and would only have been repeated if I had chosen all twenty-one. My sample consists of eight full plates and two mammoth plates.

Five of them are close portraits: three frontal and two in profile; two are bust-length portraits, one is a full-length portrait and the two mammoth plates are also full-length portraits. Although the original mats are missing from all but one, which still has remaining pieces attached, the ageing of the paint indicates that oval mats were used to present the full plate sized tintypes. The approximate dates range from the 1860s until the 1890s. All examples were acquired from American owners, two of them from the noted Chicago industrialist and collector Alden Scott Boyer, who enriched the George Eastman House collection in 1951 with a massive donation of 4.5 tons of photographic material and related books. All ten painted tintypes have a heavily overpainted or otherwise obliterated background. The hard outlines of the figures suggest the use of stencils. The background paint has a texture that is different from the rest of the image; it is rougher, more stippled and more uniform. Background colors range from a light grey-rose over grey-blue to a muddy green or purple. The extent to which the figures have been painted over differs. Faces and hands have been painted over the least, allowing the photograph to shine through. The alteration of clothing ranges from enhancement -- accentuating lace collars, ribbons or folds -- to complete overpainting, creating a very

⁵⁷ Full plate = 6 ½ x 8 ½ inch, mammoth plate = larger than 10 x 12 inch. Burns, *Forgotten Marriage*, 70.

homogenous body shape. Outlines, most likely drawn with India ink, emphasize collars and cuffs.

In general, painted tintypes were enlargements from smaller ones or from cartes des visite, the process of enlarging introducing a blurriness to the image.⁵⁸ Photographers possibly attempted to remedy this blurriness by overpainting. Various types of paint were used. Background and clothing were done in oil; faces appear to be enhanced with watercolor or dry pigment. Hair and eyes have in most cases been accentuated with India ink. Colors producing different finishes were used in the same photograph, often matte paint for the background and less-matte paint for the clothing.⁵⁹



Figure 2, 1974:0213:0001

Such differences give the sample tintypes a pronounced incoherent look. Despite their numerous common qualities, the tintypes differ in how they were altered. For the sake of a clear description, I grouped the objects according to their most striking features. Group one (figures 1, 7 and 8) contains three rather roughly painted examples. Group two (figures 4, 5 and 6) consists of three well-painted examples and group three (figures 9 and 10)

⁵⁸ Henisch and Henisch, *The Painted Photograph*, 102.

⁵⁹ For more information on different techniques of coloring see Burns, *Forgotten Marriage*, 38-45.

comprises the two sparingly painted mammoth plates. Two tintypes stick out of the selection: figure 2 and figure 3.

Figure 2 appears to be of an earlier date, i.e. 1860s, and is particularly delicately painted; the iron support has an oval shape in contrast to the usual rectangle. The pose is similar to the poses in daguerreotypes and ambrotypes, with a small table and two books used as props. Background and props are completely overpainted; face and dress are only enhanced. The woman portrayed wears a ribbon that has been heavily overpainted with blue; the brushstrokes are easily visible. Her face has only been tinted, emphasizing the hair, cheeks, lips, eyes and eyebrows. Her white lace collar and jewelry have been enhanced, as have the frills and cuffs of her dress. The unaltered parts of the image: the hands, parts of the face and the dress clearly show blurriness. The face, hands and dress have a glossy surface due to the varnish used to preserve tintypes from scratching, while the overpainted parts are matte. The unnatural in-painted sharpness of the facial features highly contrasts with the overall blurriness of the image. The use of paint underscores the artificiality of the tintype's original color. While a yellow-grey skin tone would not be disturbing in an unaltered tintype, with the introduction of color into the black and white world of the photograph the image acquires a surreal quality. The world around the figure appears to be colorful, while the person herself stays a warm grey. This creates a disconnect between the person and her environment. She is blurry and grey in a sharp and colored surrounding. The world around her seems not to be a place that she is ultimately related to.

Figure 3 differs in technique from the rest of the selection. This portrait of a man has been treated in a different way. The only overpainted part is the eyes, which have been outlined in grey. His face and the area around it were unvarnished, while his clothing was varnished. At the time this would have given the portrait a bright and pleasant look, being lighter and less dull than the varnished suit. This effect has been

lost due to deterioration. The unvarnished parts of the image have tarnished, are scratched and rubbed while the suit is still in a good condition. A line of silver-mirroring makes the head float above the body. Also in this image an overall blurriness can be noted that has been corrected in the eyes through outlining them. The tintype has its

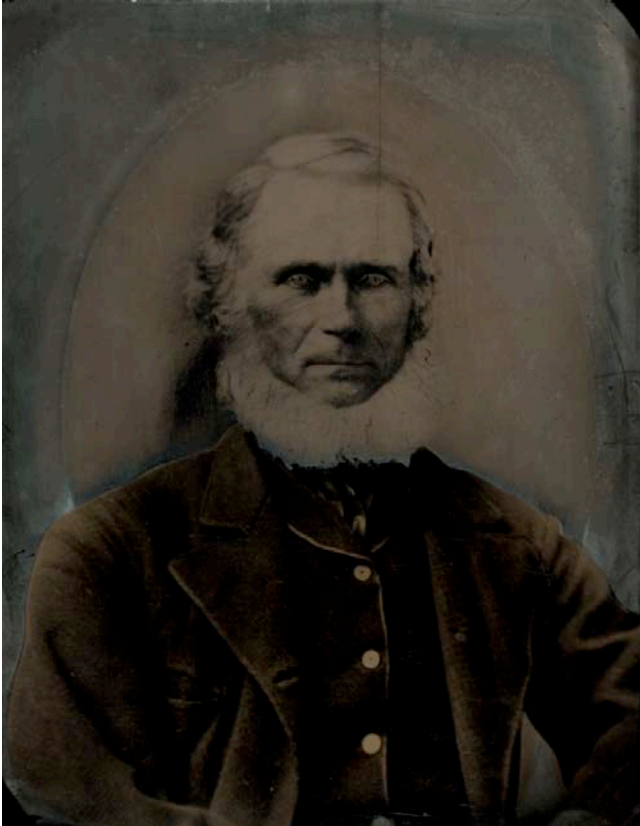


Figure 3, 1982:1535:0001

familiar tonality but different grades of it. The varnished body has a warmer tone and appears to have more dimensionality than the flat and silvery face. The face resembles a charcoal drawing with eyes that stand out because of the paint's materiality. The background has not been altered and stays metallic. In the George Eastman House's database this tintype is described as a "Pennellograph," the name of a patent defining this special process of alteration. The photographer and

collector, Olivia Parker, made this attribution in 1993. As noted above, the numerous techniques that were used to paint and alter tintypes are scarcely documented and remain unclear. Even Stanley Burns, who wrote the only comprehensive book on painted tintypes, gives merely brief and vague descriptions. Since the tintype entered the collection without any label, this attribution is not entirely definitive.

The seemingly quick and less skillfully painted tintypes of group one clearly illustrate my observation of fragmented appearance. Figure 1 shows the most diverse use of different paints in the selection. The varnished photographic basis of this portrait

of a young woman is clearly visible and gives the figure a very glossy look. Most of her hair is roughly overpainted with what appears to be India ink, but, in contrast, the part in



Figure 1, 1982:1554:0002

her hair is well executed with a very fine brush. Eyes and lips have been emphasized by outlining them with India ink. The lips are enhanced with a pale rose tint. The dress stays almost untouched, except for a few folds and buttons, which have been emphasized with India ink and the white lace collar, whose outlines have been painted in as well as a golden brooch. The tone of the image is dominated by the grey-rose of the paint and the warm

yellowish-grey of the original tintype. This color makes the image look dull and unreal, although the application of color is usually connected to a desire to enhance reality in black and white photographs. Because of the difference in execution of facial parts and the rest of the image, the face becomes overemphasized and gets disconnected from the rest of the body. This is underscored by the blurriness of the dress in contrast to the sharply outlined eyes and lips. Another disturbing factor is the sameness of the color of dress and face. Both are of a warm grey, typical for tintypes. The eyes, despite being finely outlined, are deprived of the multiplicity of detail that photography guarantees and seem to stare. A black line between the lips seems to fix a serious expression on the young woman's mouth.

Figure 7 and 8 are both characterized by coarse outlines. In the faces, traces of the photograph show through; facial features were painted in roughly. The gazes were fixed through painting in the pupils; the faces were sharpened through paint, redefining the blurry photographs. Both tintypes depict soldiers; their uniforms were rendered more as a shape than as actual garments. The colors used must have been semi-translucent since the folds of the uniforms remain visible through the paint. The one visible hand in figure 7 has been overpainted, thus isolating it from the rest of the body. The faces and



Figure 7, 1969:0208:0049



Figure 8, 1969:0208:0051

the figures have an angular shape contributing to the silhouette character of the images. The painted-in beard, eyes and cheeks in figure 7 almost create a mask. The painted pattern of the ground in figure 8 is striking, with the red and yellow strokes most probably signifying a carpet, but they are so roughly done that the figure seems to float over a red and yellow sea. The portraits resemble paper dolls with pasted faces.

The much more carefully painted tintypes of group two seem to come closer to photographic depiction and true-to-life portraiture. However, also in this group the

obliterated background and the fixed gazes create a disturbing experience when looking at the photographs for a longer time.

Figures 4 and 5 form a set. The photographs most likely depict a couple. In both cases the hair was completely overpainted using a very fine brush. Eyes, eyebrows, lips, cheeks and the shadows in the face were enhanced skillfully. The clothing is overpainted; collars and neckties were also outlined. At first glance, the subjects do not



Figure 4, 1982:1531:0001



Figure 5, 1982:1531:0002

appear as disconnected from their environment as the previous examples of the selection. However, although the image retains many details due to the skillful execution, it loses its connection to reality. The suit and dress are painted less attentively and therefore appear more as shapes than as articles of clothing on actual bodies.

The enhancement of the faces' details with paint overemphasizes them; the faces become almost too expressive. The different treatment of face and body separates the two and contributes to an overall incoherence in the image. The smooth and slightly glossy surface of the figures isolates the portraits from the matte and rough background.

By this contrast, an ambiguous spatial quality is introduced to the image. The portrait of the wife shows remains of the paper mat confirming Burns' suggestion about the presentational form of painted tintypes.⁶⁰ The image was matted with an oval, adorned with a golden border.

Figure 6 differs from the rest of the selection because of its almost entirely matte



Figure 6, 1982:1538:0001

surface. The brown-blue background is painted with the usual rough, stippled paint but in this case it appears to be rubbed on the right side creating a gradation. The young woman's face is completely overpainted; the original photograph is entirely covered. Again, the face is the best-executed part in the tintype. The hair is overpainted with a glossier paint, giving artificiality to the head. The use of different paint textures contributes to a fragmented look. In this tintype, spatial depth

would have been possible because of the background gradation, but the matte surface of the paint constructs a flat and narrow space. The light part behind the figure only appears as a halo.

The two mammoth plates in the selection are significantly less overpainted than the full plates. In both cases the background is covered, props are enhanced and the ground has been accentuated. Facial features are enhanced and tinted rather than

⁶⁰ Burns, *Forgotten Marriage*, 99-174.

painted. Both retain most of the photographic basis and are less elaborately altered than the full plates. In the portrait of a group of four, shown in figure 9, nothing is overpainted besides the background. The faces were enhanced as in tinted tintypes, eyes were painted in, some hair, jewelry and lace were accentuated and the fingers were outlined. The clothing was untouched. This sample mixes the appearance of the tinted and the painted tintype. Figure 10 is more attentively executed. Again, eyes, cheeks and lips are tinted rather than painted. Also in this case, the paint is used to sharpen the image. Only



Figure 9, 1971:0015:0001



Figure 10, 1982:1546:0001

the background, floor and cushion of the armchair are overpainted.

The quality that all ten images have in common is that their background is treated in a way that obliterates geometric perspective. The area around the figure in each image appears to be covered up, erasing the space between sitter and the background. The matte quality of the paint makes the images flat; it emphasizes the background and brings it to the fore directly behind the sitter. Consequently each portrait is reduced in its spatial quality and appears more like a collage; the use of different types of paint and the

partially visible photographic basis also contribute to this effect. Details are either represented by the photographic basis shining through, or as painted interpretations of a photographic depiction. Due to their emphasis on reduced space, halted time and fragmentation, the painted tintypes can be viewed as reflecting the quantity whose changed perception would define Industrialism: time. Time, perceived in everyday life as increased in pace and mobility and a seemingly decreased spatial distance, is fractured itself in the process of taking a photograph. Thus, through merging two distinct media, photography and painting in one object, painted tintypes create a meaningful comment on the period they were produced in. This fusion and its significance are the next subject of this essay.

Victorian society and visual culture

The invention of photography is often described as the fulfillment of an omnipresent desire for realistic representation that was wholly evolved during the early nineteenth century. This founding myth is subscribed to by Scott McQuire, who sees photography more rationally as the product of a broader change in visual perception.⁶¹ For McQuire, the introduction of geometric perspective in the fifteenth century marks the decisive change from a perception involving the spectator to a perception where the spectator becomes an observer who is separated from the world he or she looks at. The idea of observation is, according to him, significant for a shift of values during the modern era. The development and stronger influence of the sciences, urbanization and a need to organize the growing population and implement systems of control supported the appreciation of an improved visibility. The emerging visual primacy and the corresponding interest in preserving and recording observations contributed to photography's wide success.⁶²

Furthermore, the understanding of time, an integral part of photography, underwent a drastic change during the nineteenth century. The extension of the railroad in the United States from the 1870s, the general increase in travel and the introduction of new communication technologies necessitated a standardization of time, which was put into effect over several decades and finally led to the introduction of a unified world time

⁶¹ Scott McQuire, *Visions of Modernity: Representation, Memory, Time and Space in the Age of the Camera* (London; Thousand Oaks; New Delhi: Sage Publications, 1998), 18-26.

⁶² Jonathan Crary emphasizes the philosophical aspects of the camera obscura: "The aperture of the camera obscura corresponds to a single, mathematically definable point, from which the world can be logically deduced by a progressive accumulation and combination of signs. It is a device embodying man's position between God and the world. [...] It is an infallible metaphysical eye more than it is a "mechanical" eye." Jonathan Crary, *Techniques of the Observer* (Cambridge, MA; London, England: MIT Press, 1992), 48.

in 1912 during the International Conference on Time in Paris.⁶³ Modern industry needed a universally valid time to optimize the production and transportation of supplies and to guarantee the undisturbed running of the machinery that was complementing and replacing manual labor. Photography was used to survey workers' movements and to study the possibilities of their division into interchangeable parts. As Thomas J. Schlereth states, "Created to serve American commercial and scientific interests in the last century, standard time symbolized more than convenient timekeeping. It dramatized industrial capitalism's acute awareness that time was money and its obsession with punctuality, order, and regularity."⁶⁴ The experience of mass production in an assembly line constituted a linear organization of time, contrasting with the traditional circular seasonal understanding of the work-time relationship in the agrarian society. Punctuality became an important organizational imperative, and thus watches became articles of daily use for the general public. The natural boundaries of day and night were blurred through the introduction of artificial light.

The changed experience of time, which had until then been perceived as a circle, has a parallel in the disturbed dissemination of family history. Traditionally, family history had been passed on orally, involving reinterpretation and the narrator's individual voice as part of a descriptive story. Due to the work-related separation of families during the Industrial Revolution, the opportunities for passing stories orally vanished and objects, notably photographs, gained more importance. The high cost of interrupting mechanical production made it uneconomical to maintain the traditional structure of public holidays. As Philipp Wolf explains, "Holidays, however, with their origin in ritual, are traditionally

⁶³ Kern, *Culture of Time and Space*, 13.

⁶⁴ Thomas J. Schlereth, *Victorian America: Transformations in Everyday Life, 1876-1915* (New York: Harper Collins Publisher, 1991), 31.

the occasions for communal remembering, the memorial consolidation of society.”⁶⁵ The previous oral tradition became transformed into a more linear form of communication based on objects and documents that could be referred to. The secularized belief in scientific and industrial progress, spurred by a fractured experience of time, created a feeling of disconnection and loss toward the past. History itself became an important subject, reflected in the growing number of museums and historicist buildings and styles. The number of innovations resulted in an increased interest in historical objects and antiquities, an atmosphere, which Wolf identifies as memory boom or memory crisis. Referring to the poem *Aurora Leigh* by Elizabeth Barrett Browning, he describes the obsession with the past as “a kind of necrophilia.”⁶⁶

As I have already discussed, my hypothesis is that the combination of painting and photography in painted tintypes alters the original photograph in a way that was meaningful and revealing of the time period. Considering the examples mentioned earlier, a connection between a dramatically changed notion of time and the visual culture of the period seems to be a useful interpretive approach. The obliterated background of the painted tintype can be interpreted as an erased time pane, finally freeing the portrayed from the dominant parameter, which time appears to have been. Time - or more accurately - timelessness would then be the real subject of the image. These portraits could have been efforts to bridge a temporal and spatial distance actively and materially, a desire that modern technology seemed able to realize easily. As Stephen Kern notes, the invention of the phonograph with its possibility to preserve the human voice seemed to be a possibility to transcend the world of the living and to hear

⁶⁵ Philipp Wolf, *Modernization and the Crisis of Memory*: John Donne to Don DeLillo (Amsterdam; New York: Rodopi, 2002), 68.

⁶⁶ Wolf, *Modernization*, 87.

the dead speak.⁶⁷ In the brief time span of sixty years that saw the invention of photography, cinematography and sound recording, recording processes whose existence we take for granted today, the moment changed from something fleeting and brief into something that could be kept and re-experienced independent from the circumstances of its recording. Understandably, this closeness to past times and the experience of a time out of synch, which could be stretched or condensed as necessary, supported the development of a number of pseudoscientific movements such as spiritualism and with it spirit photography. A still-high child mortality rate and the losses of the Civil War combined with the newly acquired means for communication with those beyond immediate contact might have created an atmosphere in which it appeared logical that the spirits of the departed would also be within reach. As Jennifer Green-Lewis states, “A photograph, in theory, can more than replicate appearance. It can duplicate it.”⁶⁸ This ability to negate time even beyond death is what makes photographs so emotionally powerful. The importance of an engagement with the past is one of the main themes of another invention of the nineteenth century: psychoanalysis. Wilfried Wiegand, describing photography as invariably linked to the subconscious because of its rapidity and incredible exactness, compares it with the surrealist *écriture automatique*.⁶⁹ Freud characterized dreams and memories as fragmented and temporarily distorted, qualities that could also describe photographs.⁷⁰ Oscillating between document and art, they unify two distinct concepts: “the truth of magic and the truth of science.”⁷¹

⁶⁷ Kern quotes from James Joyce’s *Ulysses* “Have a gramophone in every grave or keep it in the house. After dinner on a Sunday. Put on poor old great-grandfather Kraahraark! Hellohellohello amawfullyglad kraark awfully gladaseeragain hellohello amarawf kophsth. Remind you of the voice like the photograph reminds you of the face.” Kern, *Culture of Time and Space*, 38-39.

⁶⁸ Jennifer Green-Lewis, *Framing the Victorians: Photography and the Culture of Realism* (Ithaca and London: Cornell University Press, 1998), 25.

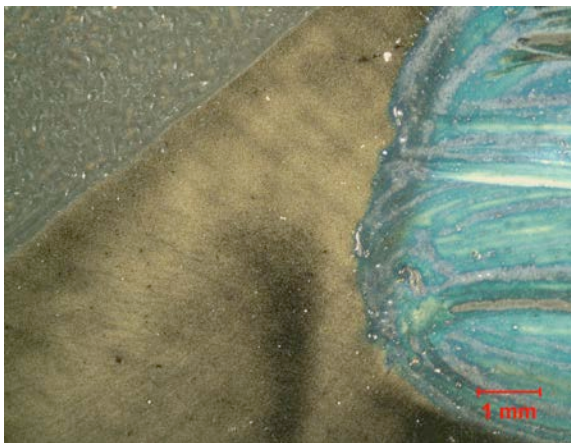
⁶⁹ Wiegand, *Wahrheit der Photographie*, 7-14.

⁷⁰ Kern, *Culture of Time and Space*, 31.

⁷¹ Alan Sekula, “On the Invention of Photographic Meaning.” In *Thinking Photography*, edited by Victor Burgin (London: MacMillan Press, 1982), 94.

Photographs can have a strong affective power. Their effectiveness as mementos is not only caused by the realistic depiction of their subject.⁷² It is also rooted in the notion that the image and the portrayed both share a physical experience; they are linked through exposure to the same lighting conditions, and they are both connected through light radiation. The preservation of the light, which physically touched a person we feel close to, establishes the strong impact photographic images can exert. It provokes an imagined reconnection through the gaze. We look at the light impression produced by the reflection of somebody's body. The experience of a photograph can thus affect us emotionally through the idea of an underlying physical connection. The shadow of the depicted becomes personalized.⁷³

Due to the different types of paint used on one plate (details of figure 1 and 2), painted tintypes acquire a fragmented look, reminiscent of collage. The use of stencils lets the figures appear like paper cutouts, assembled from a variety of materials that do not



Detail of figure 2; 12.5 magnification



Detail of Figure 1; 12.5 magnification

⁷² Mary Bergstein notes that photographs were in the nineteenth century understood as having no author in the sense of a creator and being literally “taken” traces of real life. Mary Bergstein, *Mirrors of Memory: Freud, Photography, and the History of Art* (Ithaca and London: Cornell University Press, 2010), 15.

⁷³ Elizabeth Barrett Browning describes in a letter to Mary Russell Mitford her impression of a daguerreotype: “It is not merely the likeness which is precious in such cases-but the association, and the sense of nearness involved in the thing... the fact of the very shadow of the person lying there fixed for ever!” *Illuminations: Women Writing on Photography from the 1850s to the Present*, edited by Liz Heron and Val Williams (Durham, N.C.: Duke University Press, 1996), 2.

match. Hands and the area of the face are mostly untouched to keep a trace of truthful photographic depiction within the image. The pieced-together appearance creates a ghostly character, a seeming contradiction to the realist depiction that photography was praised for. Philipp Wolf gives a plausible explanation for the occurrence of fragmented bodies in Victorian culture. For him, a society separated from traditional beliefs of order, embracing new scientific findings and technologies in the search for a new organization of social positions, naturally produced hybrid creations and creatures. The belief in natural sciences had replaced religion and ancestral concepts of identity were shifting. Due to the new social mobility, people could transcend their original ranks. The control over one's life and formation of identity appeared to be self-determined. Society's undirected self-re-creation under the influence of science and technology thus inspired visions of monstrosity, famously reflected in Mary Shelley's novel about a composite monster *Frankenstein*.⁷⁴ According to Chris Hokanson, the overwhelming flood of information transmitted through new communication technologies made Victorian consumers realize that even the latest inventions would never be able to ensure that information is conveyed and received in its entirety.⁷⁵ Continuously evolving production and living conditions made the fragment seem to be a fitting expression of the spirit of the age.

Viewing a photograph inevitably evokes contradictory ideas of what is seen. The discussion of what photography can be expected to depict dates back to its invention. "Realism and Idealism"⁷⁶ seem to be the incompatible qualities that define photography as a medium with a fluid message, which can be regarded as proof or interpretation or both at once. This antagonism is intensified through the diverse application of

⁷⁴ Wolf, *Modernization*, 7.

⁷⁵ Chris Hokanson, "Copycat Culture: The Role of Memory and Parody in Nineteenth-Century British Information Society" (PhD diss., Indiana University, Bloomington, 2007) 1-25.

⁷⁶ Eugène Delacroix, "Réalisme et Idéalisme", in *Oeuvres Littéraires*, 1859.

photographic images: as evidence and a truthful record in research and justice and as carefully framed and lighted staged products of the sitter's and photographer's combined will to create an appealing portrait. Realism, as Green-Lewis notes, is not a static concept; its understanding depends on context. The possibility of satisfying the need for proof as well as for an aesthetically pleasing and emotionally touching object constitutes photography's unique power of seduction. For Green-Lewis, photographs function extremely well in a culture focused on realist depiction but fascinated by bygone times, antiquity and romance because of their ambiguity.

The aesthetics of painted tintypes can be understood as combining the negation of time and space with the theme of fragmentation. The realistic depiction of a beloved person is altered in favor of the extraction of the time pane, which not only removes daily reality and introduces an ideal situation, it also liberates the portrayed from the rigor of time: perishability. However, overpainting and thus erasing the background also achieves a disconnection from space, obliterating any distance that could separate sitter and viewer. It constructs an ideal eternal closeness. Furthermore, the overpainting creates a very static picture, since without space there can be no movement. Two of the defining forces of the changes that shaped Victorian society and the modern era, time and space, were thus kept away from this popular form of portraiture. This "talisman for memory"⁷⁷ reflects in its look our most pressing concerns that define the loss of a beloved one: separation through temporal or spatial distance. A true-to-life depiction could not be as effective in suggesting that the emotional bond between the two parties will never be harmed by the inevitabilities of life. As memories, these portraits do not need to present themselves as homogenous; their composite quality reflects best the entirety of experiences that shape the memory of somebody we have known for a long time, a family member or a good friend.

⁷⁷ Scott McQuire, *Visions of Modernity*, 124.

Conclusion

This thesis examined painted tintypes from a hitherto under-researched cultural history perspective. To date, tintypes in general and painted ones in particular have been described in connection with the technical aspects of their process, their appeal to the masses and their either uniform or whimsical depiction of subjects. This paper concentrates on the inclusion of painted tintypes in the broader continuity of social and art history.

There is always room for more research. Time, space and memory and their reflection in art are gigantic fields, which can always be studied further. Readings on sensation and perception psychology could be valuable extensions. For a comprehensive consideration of painted tintypes it would be invaluable to study nineteenth century journals and patent records in depth. Even if the references are scarce, any publications contemporaneous to the subject of my study could provide precious insights and guidance in the complicated interpretation of these complex objects. Furthermore, any reflection on painted tintypes or painted photography in the fiction of the Victorian era could be enlightening.

My hypothesis that the aesthetics of painted tintypes are neither coincidental nor solely determined by technical limitations was supported by my research. My investigation shows that they can be regarded as a meaningful visual reflection of their peak of production, the Victorian era, and that they also can be viewed as being connected to a changed understanding of time, space and memory during Industrialization. I have been able to expand the approach typically used and to place painted tintypes in a broader context of art and social history.

Bibliography

Tintypes in general:

Historical sources:

Estabrooke, Edward M. *The Ferrotypes, and How to Make it*. 2nd ed. New York: E. & H.T. Anthony, 1880.

Trask, A.K.P. *Trask's Practical Ferrotypes*. Philadelphia: Benerman & Wilson, 1872.

The Ferrotypes's Guide: a Complete Manual of Instruction in the Art of Ferrotyping / Written by an Active Ferrotyper. New York: Scovill Manufacturing Company, 1873.

Contemporary sources:

Carlebach, Michael L. *Working Stiffs: Occupational Portraits in the Age of Tintypes*. Washington: Smithsonian Institution Press, 2002.

Daneman, Andrew. *Not on your Tintype: Volume I - Introduction; Collection of American Tintypes*. Denmark: Northern Light Gallery Aps, 2007.

Kasher, Steven, editor, *America and the Tintype*. New York: International Center of Photography; Göttingen: Steidl, 2008.

Palmquist, Peter E. *Frozen in Iron: a Selection of Tintypes from the Peter E. Palmquist Collection*. Arcata, California: P. E. Palmquist, 2001.

Rinhart, Floyd and Marion Rinhart. *The American Tintype*. Columbus: Ohio State University Press, 1999.

Schimmelman, Janice Gayle. *The Tintype in America, 1856-1880*. Philadelphia, Pa: American Philosophical Society, 2007.

Painted Photographs/ Tintypes, American Miniature and Folk Art:

Burns, Stanley B. *Forgotten Marriage: The Painted Tintype & The Decorative Frame, 1860-1910: a Lost Chapter in American Portraiture*. Foreword by Gerard C. Wertkin. New York: Burns Press: Burns Collection, Ltd., 1995.

Henisch, Heinz and Bridget Ann Henisch. *The Painted Photograph, 1839-1914: Origins, Techniques, Aspirations*. University Park, Pa.: Pennsylvania State University Press, 1996.

Frank, Robin Jaffee. "Like a Bird Before a Snake: The Miniature and the Photograph." In his *Love and Loss: American Portrait and Mourning Miniatures*, 277-303. New Haven, Conn.: Yale University Art Gallery, 2000.

Polley, Robert L., editor. "Folk Painting." In *America's Folk Art: Treasures of American Folk Arts and Crafts in Distinguished Museums and Collections*. Waukesha, Wis.: Country Beautiful Corporation, 1971. 156-175.

Lipman, Jean and Alice Winchester. "Portraits." In their *The Flowering of American Folk Art, 1776-1876*, 15-49. Philadelphia, Pa.: Courage Books, in cooperation with the Whitney Museum of American Art, 1987.

Encyclopaedias:

Gernsheim, Helmut and Alison. *The History of Photography: from the Camera Obscura to the Beginning of the Modern Era*. London: Thames and Hudson, 1969.

Marien, Mary Warner. *Photography: a Cultural History*. New York: Harry N. Abrams, 2002.

Newhall, Beaumont. *The History of Photography*. New York: The Museum of Modern Art, 1964.

Rosenblum, Naomi. *A World History of Photography*. New York: Abbeville Press Publishers, 2007.

Taft, Robert. *Photography and the American Scene: A Social History, 1839-1889*. New York: MacMillan, 1938.

Frizot, Michel, editor. *A New History of Photography*. Cologne: Könemann, 1998.

Lenman, Robin, editor. *The Oxford Companion to the Photograph*. Oxford; New York: Oxford University Press, 2005.

Victorian Society:

Braun, Marta. "Aux limites du savoir: 1845-1900; la photographie et les sciences de l'observation." In *L'Art de la Photographie des Origines à nos Jours*, edited by André Gunthert and Michel Poivert, 140-177. Paris: Citadelles-Mazenod, 2007.

Gervais, Thierry. "On Either Side of the 'Gatekeeper': Technical Experimentation with Photography at *L'Illustration* (1880-1900)." In *Études Photographiques* 23 (May 2009): 177-191.

Green-Lewis, Jennifer. *Framing the Victorians: Photography and the Culture of Realism*. Ithaca, N.Y.: Cornell University Press, 1996.

Hokanson, Chris. *Copycat Culture: the Role of Memory and Parody in Nineteenth-century British Information Society*. Bloomington, Ind.: Indiana University, 2007.

Kern, Stephen. *The Culture of Time and Space 1880-1918*. Cambridge, MA: Harvard University Press, 1983.

Schlereth, *Victorian America: Transformations in Everyday Life, 1876-1915*. New York, N.Y.: HarperCollins, 1991.

Trachtenberg, Alan. *Incorporation of America: Culture and Society in the Gilded Age*. New York: Hill and Wang, 1982.

McQuire, Scott. *Visions of Modernity: Representation, Memory, Time and Space in the Age of the Camera*. London; Thousand Oaks, Calif.: SAGE Publications, 1998.

Wolf, Philipp. *Modernization and the Crisis of Memory: John Donne to Don DeLillo*. Amsterdam; New York: Rodopi, 2002.

Zemka, Sue. *Time and the Moment in Victorian Literature and Society*. Cambridge; New York: Cambridge University Press, 2012.

Aesthetics and Photography:

Batchen, Geoffrey. *Forget Me Not: Photography & Remembrance*. Amsterdam: Van Gogh Museum; New York: Princeton Architectural Press, 2004.

Batchen, Geoffrey. *Suspending Time: Life-Photography-Death*. Shizuoka: Nohara and Izu Photo Museum, 2010.

Bubb, Martine. "Perspective et Camera Obscura." In her *La camera obscura: philosophie d'un appareil*, 73-86. Paris: l'Harmattan, 2010.

Crary, Jonathan. In his *Techniques of the Observer*. Cambridge, MA; London, England: MIT Press, 1992.

Facos, Michelle. *An Introduction to Nineteenth Century Art*. New York: Routledge, 2011.

Friday, Jonathan. *Aesthetics and Photography*. Aldershot, Hants, England; Burlington, VT: Ashgate, 2002.

Gombrich, E. H. *The Image and the Eye: Further Studies in the Psychology of Pictorial Representation*. Ithaca: Cornell University Press, 1982.

Parsey, Arthur. *The science of vision = or, Natural perspective ... and the new optical laws of the camera obscura, or daguerreotype, also, the physiology of the human eye*. 2nd ed., with corrections and many additions. London: Longman, 1840.

Sturken, Marita and Lisa Cartwright. *Practices of Looking: an Introduction to Visual Culture*, 12-16. New York: Oxford University Press, 2001.

Illustration credit

All images are courtesy of George Eastman House and were digitally photographed by museum photographer Barbara Galasso for this paper.