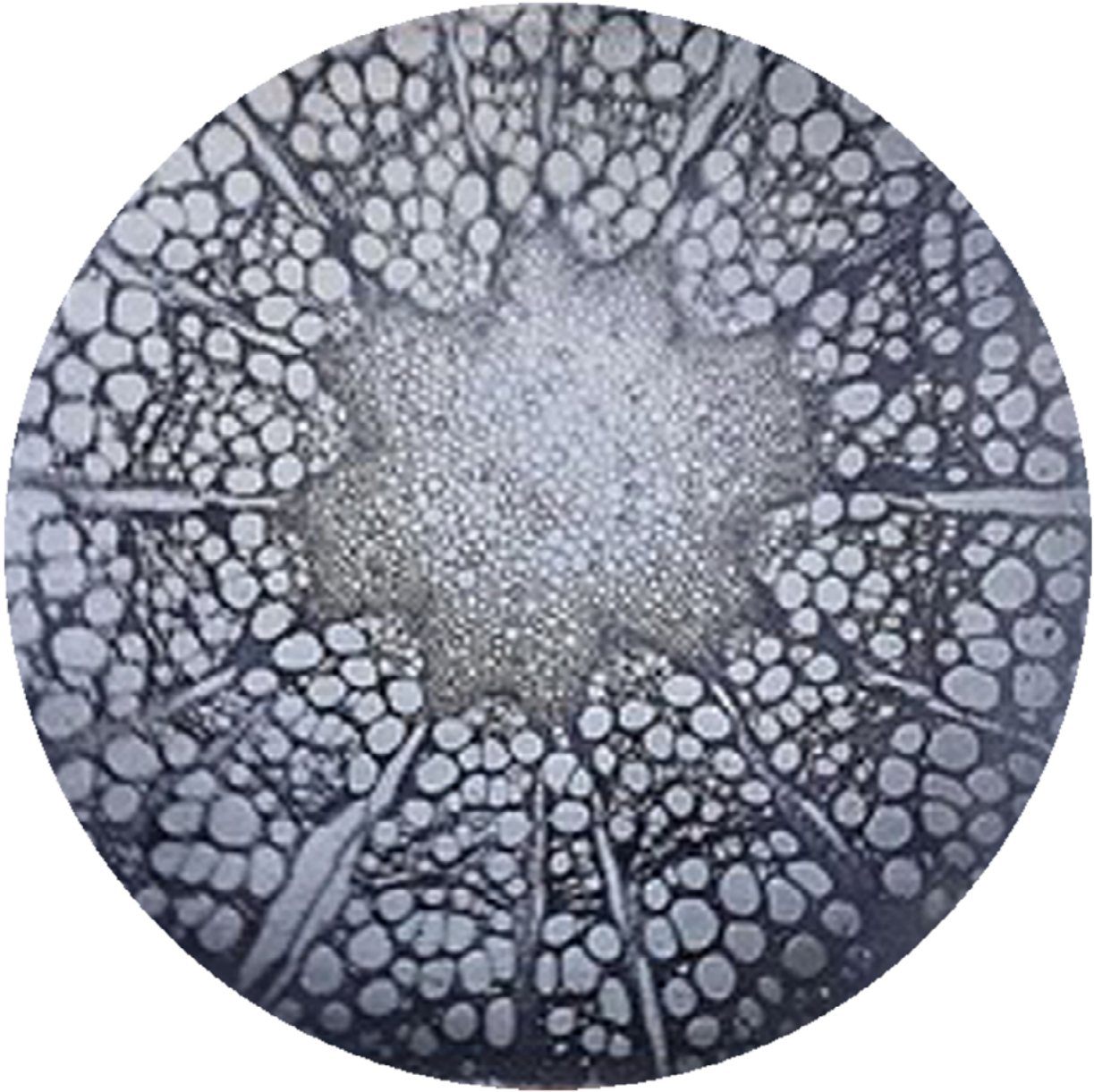


# DAGUERRETYPE *journal*

Year 1 | Issue N. 1

November 2014 Sharing the International Cultural and Visual Heritage of Daguerreotypes



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Photography on a silver plate

## CURRENT RESEARCH

Ephemeral colours in daguerreotypes

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# DAGUERREOTYPE *journal*

QUARTERLY ISSUE N.1

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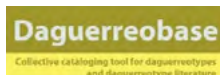
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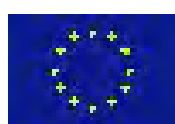
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# A postcard from Austin



by SANDRA MARIA PETRILLO

It is an interesting coincidence that 1839 - the year in which the invention of the daguerreotype was made public - was also the year in which the government of the Republic of Texas moved from Houston to Austin and the Texas Congress bought some land that was designated as the site of what is now the state University of Texas at Austin, although this institution was established only in 1883. This city hosted the 26th annual symposium of the Daguerreian Society in September of this year, with a programme of conferences of great historical and scientific interest, enhanced by the traditional Trade Fair, as well as a series of visits to various local institutions, including the renowned Harry Ransom Center at the University of Texas at Austin where the earliest known surviving photograph made by a camera is preserved, the heliograph by Niépce entitled *View from the Window at Le Gras*, 1826-1827, which is known as the First Photograph, or the “FP”.

The novelties of the Symposium - which in previous editions focused mainly on historical aspects of the daguerreotype - included several talks about the most recent scientific research concerning the chemical and physical nature of daguerreotypes, also featuring a panel of three leading experts who discussed topics connected to the state of the art in the conservation, collecting and exhibiting of daguerreotypes. These experts were the senior curator of photography at the Nelson Atkins Museum in Kansas City, Missouri (Keith Davis), a photographic conservator who has a private practice in Boston (Paul Messier) and a contemporary daguerreotypist, researcher and daguerreotype conservator working with the AMC collection in Toronto (Mike Robinson).

We would like to thank the Daguerreian Society for giving us the opportunity to present the European project “Daguerreobase” and our organization, the European Daguerreotype Association (EDA), to the American public. On this occasion we also publicly invited the supervisors of public collections in addition to private collectors all over the United States to share any daguerreotypes of European origin they may possess on the website [daguerreobase.org](http://daguerreobase.org). At the conclusion of the “Daguerreobase” project (in Summer 2015), the EDA will be the organization responsible for maintaining the website [daguerreobase.org](http://daguerreobase.org), which will continue to accept new daguerreotype images so as to further its aim of becoming an internationally recognized daguerreotype database.

During the Austin symposium an initiative that should complement the “Daguerreobase” project was announced by Larry J. Schaaf. This is entitled *The William Henry Fox Talbot Catalogue Raisonné*. While very few original daguerreotypes created by Daguerre himself



still survive, there are more than 25,000 photographic prints and negatives made by Fox Talbot all over the world, together with hundreds of his letters, published articles and books. In August 2014 the Bodleian Library of the University of Oxford gave the photography historian Dr. Larry J. Schaaf the task of publishing his *catalogue raisonné* of original photographs by Talbot and his circle. Schaaf is the author of numerous books and articles on Talbot, including *Out of the Shadows: Herschel, Talbot & the Invention of Photography* (Yale, University Press, 1992) and *The Photographic Art of William Henry Fox Talbot* (Princeton, 2000). He is the founder and editor of *The Correspondence of William Henry Fox Talbot*, which is an [online database](#) at consisting of nearly 10,000 letters dating from 1800 to 1877 addressed to and from Talbot. It was set up by the University of Glasgow in 2003 and subsequently transferred to De Montfort University in Leicester.



A complement to the *Catalogue Raisonné* of Talbot's photographic work will be a significant private collection purchased by the Bodleian Library at the end of a two-year national campaign to raise £2.2 million, thereby saving this precious archive for Britain. The Bodleian received funds from the National Heritage Memorial Fund (NHMF) and a substantial grant from the Art Fund. The Library's fundraising efforts were actively supported by the distinguished photographers Hiroshi Sugimoto and Martin Parr. The purchased archive is somewhat exceptional, as it consists of family diaries, drawings, manuscripts, letters, musical scores, and even some of the objects used by Talbot in his photographic compositions, together with scientific instruments, photographic images that various other photographers from Great Britain and the continent sent to Talbot, some of the first photographic views

of Oxford, and an exceptional photograph taken by his wife, Constance, in 1839, which may well be the earliest photograph taken by a woman. All of this wonderful material will certainly give us "a fuller image of an extraordinary Victorian scientist and humanist" says Prof Schaaf. He also points out that "a Catalogue Raisonné is required to unlock the enormous artistic, documentary, and technical information embodied in these images. This project seeks to make more than four decades of personal research freely available to scholars. While much of the work has already been done, the data is confined to my private databases and files and is in danger of being lost". Those who will wish to consult this material will be "anyone interested in the history of photography, a steadily growing area in academia. There is a great deal of historical, architectural, and general documentation preserved in these photographs, which are often unique records of an early period".

We are therefore all looking forward to see how this exciting and valuable project will develop!



*Ills*, Prof. Larry Schaaf together with Daguerrebase Project representatives in Austin: Femke IJsinga-van Boxsel and Sandra M. Petrillo. Photo by Bob Lansdale  
 W. H. F. Talbot, A peony leaf above leaves of a species of chestnut, photogenic drawing, Copyright The Bodleian Library in Oxford  
 The traditional group portrait of the Daguerreian Symposium participants. Austin, Texas, Photo by Bob Lansdale published on [www.daguerre.org](http://www.daguerre.org)

**JOHN HURLOCK**, is a retired chemical engineer from Chicago who makes and collects daguerreotypes. He also conducts research on the daguerreotype process. He has devised various methods for developing daguerreotypes with cold mercury or coloured LED light. He has published articles on hyper-sensitizing and the fading of latent daguerreotype images. His daguerreotypes have been exhibited in Bry sur-Marne, Pittsburgh, Atlanta, New York and the George Eastman House in Rochester. [More info](#)

**PETRA VÁVROVÁ** graduated in Monument Conservation at the Institute of Chemical Technology of Prague in June 2001. In 2010 she was an intern in the Getty Conservation Institute in USA, analysing historical photographic techniques. She is now the director of the Conservation Division of The National Library of the Czech Republic, cooperating with the FAMU Film and TV School of Prague. [More info](#)

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**CHIARA NALDI** A PhD student at the University of Udine, she is now working on a thesis on the photographic documentation of works of Renaissance art in the nineteenth century. She studied Art History at the University of Florence, where she graduated with a degree in the History of Photography. She had a postgraduate internship period at the photographic library of the Institut National d'Histoire de l'Art (INAH) in Paris, an experience that led to the research project she is currently conducting.

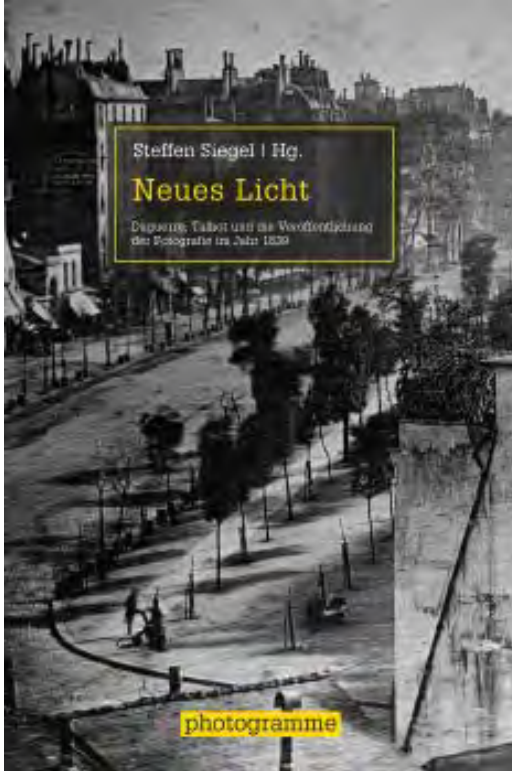
**UTE WROCKLAGE** is a freelance art and photography historian and teacher. She has worked on numerous exhibitions in the field of photographic history and commemorative culture and has curated several important exhibitions on historical photography. Since 2013 she has coordinated the Daguerreobase Project for the Museum Ludwig collection of modern art in Cologne. [More Info](#)



# Neues Licht, the book by Steffen Siegel

## A new light in the history of photography

by HANS GUMMERSBACH, private collector, *Münster, Germany*



NEUES LICHT (New light)  
Steffen Siegel / Editor

Neues Licht Daguerre, Talbot und die Veröffentlichung der Fotografie im Jahr 1839 (Daguerre, Talbot and the publication of photography in 1839)

2014 Wilhelm Fink, Paderborn  
Germany  
ISBN-10: 3770557360  
[fink.de](http://fink.de)

“It is one of the most astonishing inventions of our time”, Alexander von Humboldt wrote to his friend Carl Gustav Caros in February 1839.

In our times, 175 years after this admiring comment of von Humboldt looking at the daguerreotype, the first practicable photographic procedure, photography controls our modern media-driven society like no other. According to estimates of the German photographic industry in Germany alone you hear 2,000 “clicks“ of cameras of all kind every second! One makes a calculation of how many photos are made per hour, per day, per year around the world!

A recently published new book of Steffen Siegel brings us back to the year 1839. A “back to the roots” to the year of publication of the epoch-making invention of Parisian artist Louis Daguerre. After five years of intensive archival research Siegel, professor of art history at the Friedrich-Schiller University, Jena, found hundreds of early traces of the invention of the new medium. Now he presents an impressive, very well contextualised collection of 132 original sources, documents, letters, press releases and monographs mostly from 1839 in each case in their entirety. Few of these texts, for example by Eugène Viollet-le-Duc, Henri Gaucheraud, Jules Janin, Alexander von Humboldt, John Frederick William Herschel and Hippolyte Bayard, to mention only a few, are ever mentioned in the photohistorical literature. Now the reader can study them on 520 pages full of interesting details. The different motives and interests of the keenly competing protagonists, the political and international implications, the euphorical adoption of the new “mirror like pictures, made by nature itself” in Paris and shortly after in the entire world come alive while reading the book.

It is especially noteworthy that 80 percent of the published sources appear for the first time after their original publication 175 years ago. This gives an exceedingly authentic picture of the events of that early period of photo-media history.

The book “Neues Licht” (“New light”) is directed in its present issue initially only to German speaking readers with interests in photohistory. Ninety percent of the foreign language sources were translated here the first time into German! This is on the one hand very helpful; on the other hand it is to be very much wished that the planned publication of Steffen Siegel’s impressive text collection can be published in the English and French languages as well. Thus, this important part of European cultural heritage would be more widely known than it is today.

# Photography on a silver plate

A daguerreotypes virtual exhibition launching on [exhibition](#)



## THE EXHIBITION

Silver, mercury and gold were the elements involved in the first truly successful photographic process: the daguerreotype.

This technological miracle of the 19th century is increasingly being recognized as a unique and irreplaceable asset of our international cultural heritage. In 1839 the public revelation of the invention of the daguerreotype, in the midst of an increasingly industrialized civilization, introduced a universal and continually evolving medium, through which our view of the world was definitely changed.

The illustrations presented here have been selected from the hundreds of European daguerreotypes that can be accessed and consulted publicly on the websites [www.daguerreobase.org](http://www.daguerreobase.org) and [www.europeana.eu](http://www.europeana.eu). They show us the faces, places and histories of the nineteenth century and testify to the conceptual breakthrough initiated by photography in the field of visual mass communication: that of satisfying, yesterday as in today's digital age, our desire to permanently record the fleeting and unrepeatable moments of our lives.


**E**ighty daguerreotype images, with related texts and a video divided into five separate themes guide the visitor through a virtual exhibition of daguerreotypes in various prestigious European public and private collections. The exhibition "Photography on a Silver Plate", curated by Sandra M. Petrillo and Francesca Bonetti for the Daguerreobase Project will be launching on the website "Europeana", which deals with the shared European cultural heritage.




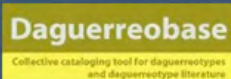

Lauching in November

# PHOTOGRAPHY ON A SILVER PLATE

A Virtual Exhibition by Daguerreobase and Europeana



[exhibitions.europeana.eu](https://exhibitions.europeana.eu)



Unidentified daguerreotypist, Portrait of a boy with dog, tinted French daguerreotype, ca. 1850, Fotomuseum WestLicht, Wien

# Follow the Yellow House Dag: ephemeral colour

## ABSTRACT

A series of highly polished sheets of silver-plated copper were exposed to the fumes of iodine, and bromine forming a light sensitive layer of silver halide approximately one hundred micrometers thick. <sup>(1)</sup> A wide range of fuming times and iodine to bromine ratios were selected to study the effects of film thickness and halide ratio on the light sensitivity of the plates.

The light sensitivity of these plates to various colors was measured by contact printing color film transparencies on each silvered sheet. After mercury developing the resulting daguerreotypes were scanned with a digital scanner before and after fixing to record the colors in the images.

The levels of colors in each image scan were measured using a Photoshop® sampling tool and the colors were then compared to the colors in the original transparencies.

Depending upon the ratio of the halide fuming times, certain colors on the unfixed plates, notably red, yellow, green and blue, appeared to correlate with the levels of that color in the transparency. However color saturation was generally low and these same colors could sometimes be detected on the plate in areas that did not correspond to the colors in the transparency. After the excess silver halide was removed by fixing, most of the colors with the exception of yellow, blue and brown disappeared. The formation of fugitive colors in silver chloride on paper was reported by Herschel <sup>(2)</sup>. Similar colors on Daguerreotype plates were reported by Becquerel <sup>(3) (4)</sup>. Some photo historians attributed these “natural colors” to light scattering but others like Zenker <sup>(11)</sup> speculated that these were interference colors, caused by standing waves of light reflected from bands of silver suspended in the halide matrix which formed at distances from the underlying silver plate which corresponded to multiples of the wavelength of each color in the light spectrum.

KEY WORDS\_Daguerreotype process, Becquerel process, colours in daguerreotypes

by JOHN HURLOCK, Chemical engineer, maker and collector, *Chicago - USA*

## INTRODUCTION

One of the reasons why daguerreotypes images look so natural is that they sometimes appear to have natural colors in them. Just to be clear we are not referring to painted daguerreotypes that have had colors applied to their surface. Nor are we referring to daguerreotypes with colored corrosion products on their surface.

We know that daguerreotypes are intrinsically just black and white images but they look so natural that our imagination sometimes plays tricks on our eyes. Have you ever wondered if those colors you think you've seen on those daguerreotypes are real?

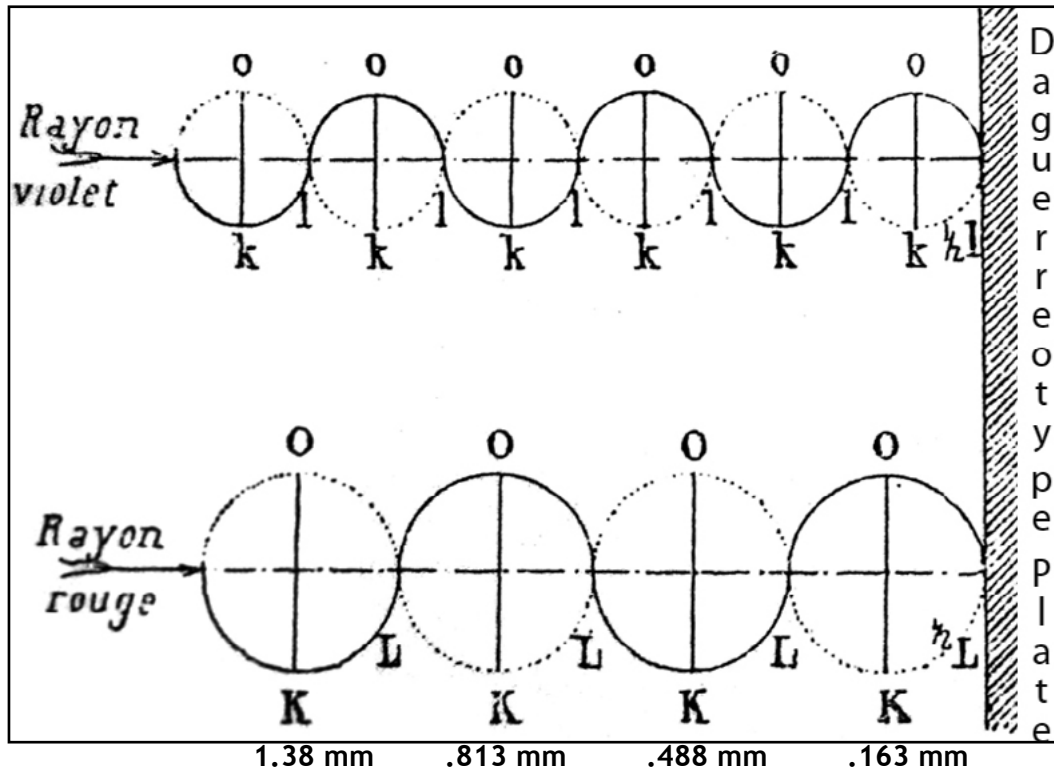
In this paper we examined digital scans of daguerreotype images before and after fixing to determine if natural colors are present and if so what process variables could account for their creation.

## HISTORICAL BACKGROUND

In 1848 Edmond Becquerel reported recording color with Daguerreotype plates sensitized with chlorine. <sup>(3)(4)</sup> He sensitized his silver surfaced plates by fuming and also by electrolytic sensitization in a solution of dilute hydrochloric acid. As current was passed through the plate, it passed through several color change cycles as the silver chloride layer thickened. Becquerel reported that he got the best colors with the fourth violet color which corresponded to a thickness of “1/588mm” or 1.7 micrometers.

In 1849-1852 Claude Felix Abel Niépce de Saint-Victor (1805-1870), first cousin of Joseph Nicéphore Niépce, conducted similar experiments with silver chloride on silver plates, using a modified chemical coating process. <sup>(5)(6)(7)</sup> He found that he got better results using solutions of copper chloride and ferric chloride rather than hydrochloric

# Colors in daguerreotypes



acid. He also found the colors that appeared depended on the concentration of chlorine. At the lowest concentration yellow appeared. At higher concentrations green, blue, indigo, violet, red and orange appeared in succession. To preserve these plates he added a varnish of dextrin and lead chloride. The plates were more sensitive than Becquerel's and lasted from a half day to a week in light and longer in darkness. Burder and Green images are also of this type.<sup>(9)</sup>

Some photo historians have attributed the colors in Becquerel's plates to light scattering by the silver image particles.<sup>(8)</sup> However in 1868 Wilhelm Zenker (1829-1899) took a different approach. He thought that these "natural colors" on the plates of Becquerel and Niépce de St Victor were interference colors produced by standing waves of light.<sup>(10,11)</sup> Even though he never saw the Becquerel

plates, Zenker proposed an explanation for the puzzling results. Zenker theorized that the incoming light combined with light reflected from the silver surface of the Daguerreotype plate. The result was a pattern of light where the incoming and outgoing light alternately reinforced each other, when the two light beams were in phase with one another (O and OK), and nullified each other when they were out of phase (L). See Illustration 1.

The first light reinforcement theoretically occurs at a distance from the plate equal to one quarter of the wavelength of the light and re-occurs at intervals corresponding to half the wavelength of the light. These patterns of peak light intensity are recorded as parallel layers or laminae of photolytic silver within the silver chloride film. Because each color of light has a different wavelength the wave patterns and the laminae they produced appear

### III. 1, Distance from the Daguerreotype Plate, nanometers

Diagram by Ch. Gravier indicating the formation of silver laminae ok and OK at the interference maxima of stationary waves. (Source: The Bodleian Libraries, University of Oxford, N. 1709 d.2, "Photography in colours", Amateur. Photographer (6 March), 163-164 (1891), at p. 164.)

at a different distance from the plate surface. When the developed plate is illuminated from above, interference colors are reflected from these wave patterns. The color that had formed a particular wave pattern is selectively maximized by that wave pattern, and the light of all other colors is unaffected. The more levels of a particular wave pattern that are recorded in the silver chloride layer, the more vibrant or saturated that color appears to be. Approximately 5 wave fronts of red (rouge) light could have formed in the 1.7 micrometer layer of silver chloride on Becquerel's color plates. Becquerel never anticipated nor accepted Zenker's explanation for his plates. Zenker's work was not acknowledged at the time. In 1851 Levi Hill (1816-1865) claimed that he had invented a process for the production of full color daguerreotypes<sup>(12)</sup>. Like Niépce de Saint-

Victor, Hill also sensitized his plates with silver chloride using a mixture of salts he referred to as "singular green crystals". Examination of his plates shows that Hill did succeed in recording red, blues, and browns but had trouble with yellows and greens. Later in 1985 photographic professor Joseph Boudreau succeeded in reproducing Hills process<sup>(13)</sup>. Hill and Boudreau were the first to replace the printing out process used by Becquerel and Niépce de Saint-Victor with mercury development of their natural color images. Later analysis of Boudreau's crystals<sup>(14)</sup> revealed that they were 85% copper chloride monohydrate. Analysis of the crystals after drying at 105C revealed that they contained a mixture of other salts that were possibly added to make the images more stable.

Until recently most of these experimenters,

TABLE 1

Nalco Chemical Analysis of Joseph Boudreau singular green crystals

<i>Elements Found</i>	<i>Percent of Element</i>	<i>Percent of Compound</i>
<i>Chlorine</i>	<i>45.0% as Cl</i>	
<i>Fluorine</i>	<i>2% as F</i>	
<i>Copper</i>	<i>41% as CuO</i>	<i>83.4% as CuCl*</i>
		<i>6.17% as CuF*</i>
<i>Iron</i>	<i>6% as Fe<sub>2</sub>O<sub>3</sub></i>	<i>3.39% as FeCl<sub>2</sub>*</i>
<i>Sodium</i>	<i>2% as Na<sub>2</sub>O</i>	<i>1.98% as NaBO<sub>2</sub></i>
		<i>1.03% as NaMnO<sub>4</sub></i>
		<i>0.37% as NaCl</i>
<i>Tin</i>	<i>2% as SnO</i>	<i>2.00% as SnCl<sub>2</sub></i>
<i>Magnesium</i>	<i>1% as MgO</i>	<i>0.82% as MgCl<sub>2</sub></i>
		<i>0.87% as Mg<sub>2</sub>P<sub>2</sub>O<sub>7</sub></i>
<i>Manganese</i>	<i>0.28% as Mn</i>	
<i>Boron</i>	<i>0.46% as B</i>	
<i>Phosphorous</i>	<i>0.34% as P</i>	

\*Copper I & Iron II assumed based upon the green crystal color.

with the possible exception of Hill, used a printing out process to form the image. In 1999, Hurlock exhibited a fixed, mercury developed daguerreotype containing an image of a yellow house at the Daguerreian Society Symposium in Norfolk Va. The process used involved heavily fuming an ordinary silvered copper plate with Iodine and Bromine to a steel blue color. A color transparency was then contact printed onto the plate using an exposure of only 50 seconds from a 40 watt incandescent bulb. Finally the plate was developed over cold mercury (20C) for 8 hours under a 25 inch (125 torr) vacuum. The yellow color remained after fixing in an ordinary hypo bath but no attempt was made to gild the image. This experiment was replicated by Hurlock in 2005 with the same result. This last plate was presented by William R. Alschuler, at the Looking Glass of Science Symposium at Oxford, England, September 10-11, 2005. The procedure used to produce the yellow

house Daguerreotype was reinvestigated in 2006. To duplicate the original work, a series 4x5 inch Daguerreotypes plates were polished in a horizontal direction with powdered rouge and then lampblack using velvet covered hand buffing paddles.

The freshly polished plates were subsequently heavily fumed with Iodine and Bromine. The fuming times were varied over a broad range so as to determine the optimum coating conditions for capturing colored images.

Final plate colors after a second Iodine fuming ranged from steel blue to a pale yellow or green of the second cycle.

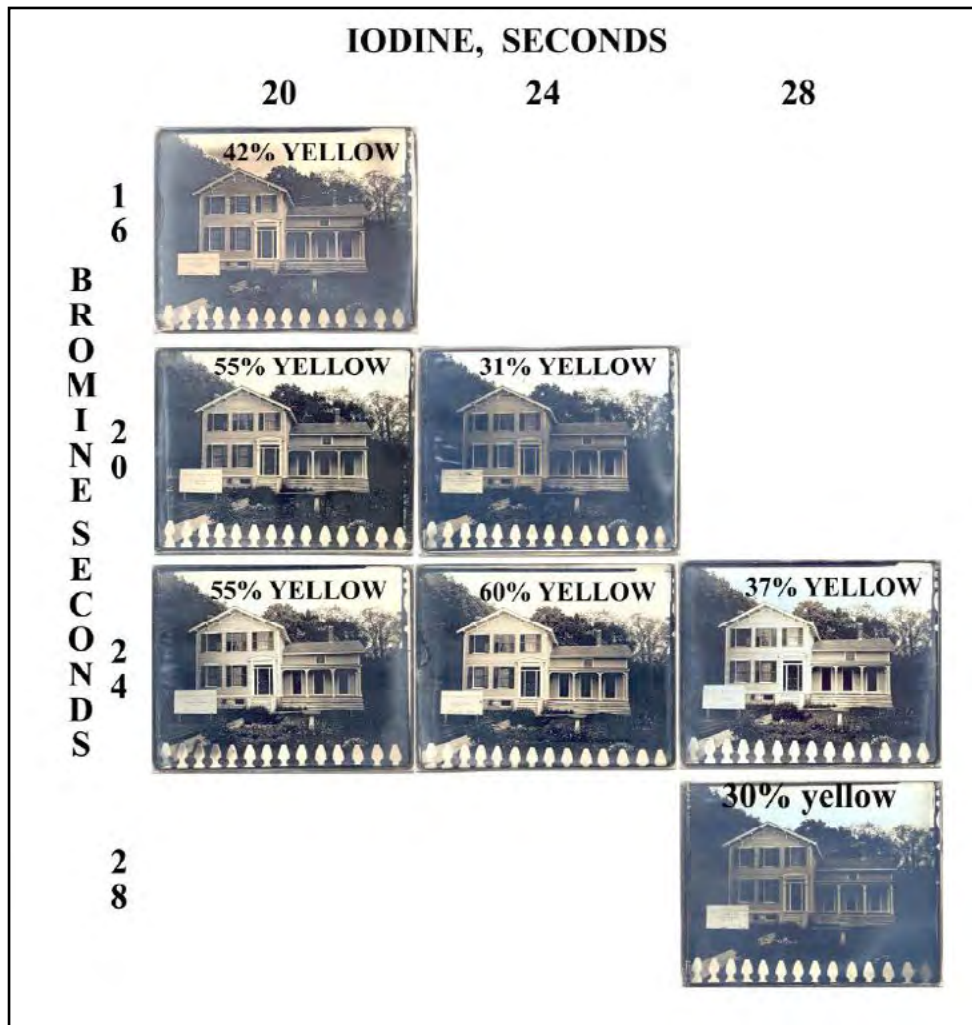
A 4x5inch Fugichrome Velvia transparency of the yellow house in Illustration 2 was placed over the plate in a printing frame and this sandwich was exposed to the light of a 40watt incandescent light bulb (EV=5) for one minute. Then each plate in the series was developed over cold mercury for 8 hours at 20C under a 25inch (125torr) vacuum. After development,



*III. 2*, John Hurlock, 4x5 inch, Yellow house, Fugichrome Velvia Transparency, 1999

*III. 3*, John Hurlock, 4x5 inch, Yellow house, Daguerreotype Print ,1999

Collection of Susan and John Anderson.

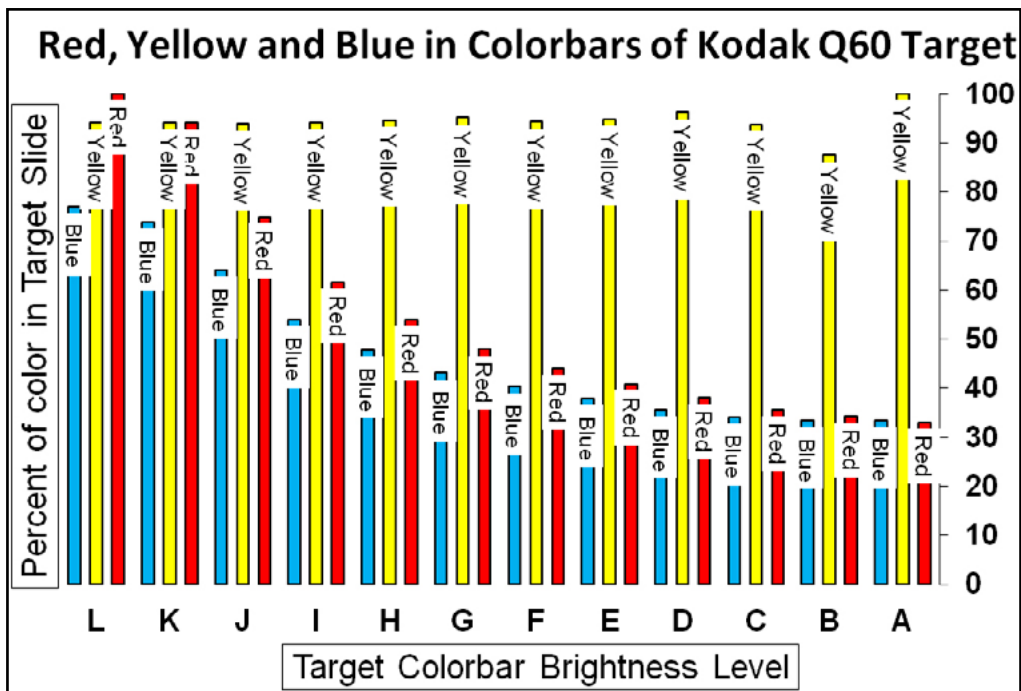


each plate was fixed in hypo, washed in distilled water, and dried but not gilded. The cyan/yellow/magenta (CYM) color content of each Daguerreotype was measured from a digital color scan of each Daguerreotype using the Photoshop® eyedropper tool. The percentage of yellow in the house image varied from 60% to 68% in two plates which had been fumed for 24 seconds with iodine and 24 seconds with Bromine. Outside this fuming range, the yellow content varied from 31% to 55%. Curiously the CYM color content of the original transparency was only 42% yellow, the remainder being 27% magenta and 21% cyan. In illustration 4 seven **Daguerreotype prints** of the yellow house transparency, are arranged left to right in order of increasing iodine fuming time and top to bottom in order of increasing bromine fuming time. The maximum percentage of yellow color measured in the fixed yellow house image is noted on each image.

**OTHER COLORS ON UNFIXED DAGUERREOTYPE PLATES**

To determine if other colors could be captured on regular mercury developed daguerreotype plates a standard Q60 Kodak Ektachrome Color transparency (Illustration 5) was chosen as the target for this test. To calibrate the chart, the CYM (cyan, yellow, magenta) and RGB (red, green, blue) color content in colorbars 13 through 19 of the above Q60 transparency were measured with the eyedropper tool in Photoshop®. The percentage of red, yellow and blue colors found in the Q60 color bars is illustrated in Illustration 6. The daguerreotype plates used for this portion of the investigation were polished with rouge and lampblack using a random orbital buffer equipped with foam pads covered in silk velvet. The polished plates were then fumed over iodine for 20 to 32 seconds and subsequently

III. 4 Daguerreotype prints of the yellow house transparency



fumed over Bromine for 24 to 32 seconds. Three images of the Kodak Q60 target were contact printed on each plate. Exposures ranging from 2.5 seconds up to 10 seconds were made using the light from a 40w incandescent bulb (Exposure Value =5)

After exposure the daguerreotypes plates were immediately developed in a 75 torr vacuum over cold mercury for 2 hours at 20C.

To determine if there were any fugitive colors imbedded in the silver halide films on the

plates, they were scanned on an HP Scan jet 5370C flat bed scanner before fixing. The plates were then fixed in hypo solution and rescanned. Table II lists plate colors during fuming and before and after the fixing.

The matrix of unfixed daguerreotype images of the Q60 transparency shown in Illustration 7 revealed that the maximum range of colors, (i.e., red, blue and yellow) were observed in the plates that had been fumed for 24-28

III. 5, Kodak Q60E3 target for Ektachrome professional films

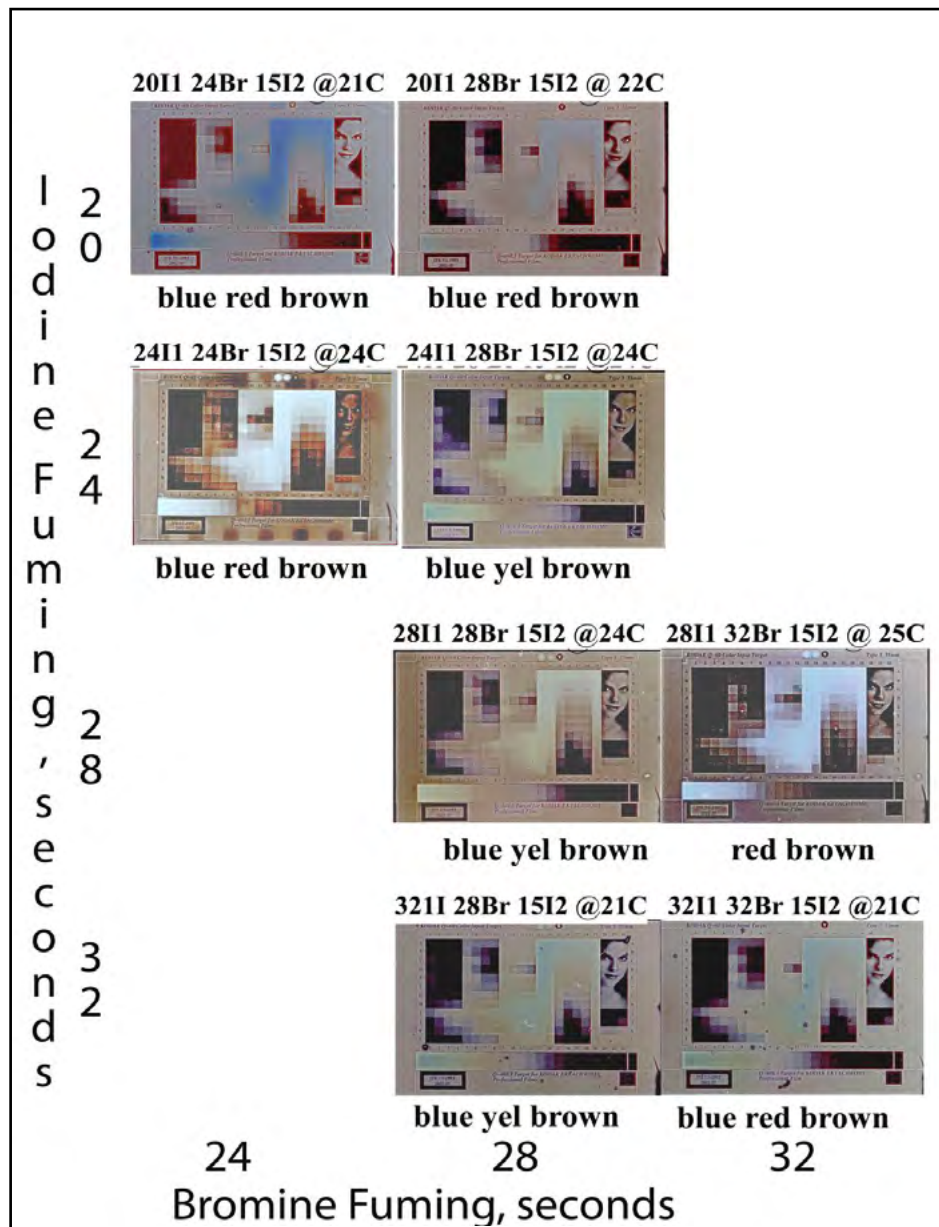
III. 6, Kodak Q60, the percentage of red, yellow and blue colors

TABLE 2

Mercury Developed Daguerreotype Images of Kodak Q-60 target

Plate Number	Temp deg C	First Iodine secs	Fume Color	Br secs	Fume Color	2nd Iodine secs	Fume Color	Exp sec	Q60 Before Fixing	Q60 After Fixing
2563	21	20	rose	24	pale yellow	10	pale green	2.5	blue red	brown
2563	21	20	rose	24	pale yellow	10	pale green	5	brown blue red	blue brown
2563	21	20	rose	24	pale yellow	10	pale green	7.5	blue red brown	blue yel brown
2597	22	20	rose violet	28	pale blue	10	pale green	2.5	blue red brown	yellow brown
2597	22	20	rose violet	28	pale blue	10	pale green	5	blue red brown	yellow brown
2597	22	20	rose violet	28	pale blue	10	pale green	7.5	blue red brown	yellow brown
2566	22	24	rose violet	24	pale yellow	10	pale yellow	2.5	blue red green	blue yel brown
2566	22	24	rose violet	24	pale yellow	10	pale yellow	5	blue red brown	blue yel brown
2566	22	24	rose violet	24	pale yellow	10	pale yellow	7.5	blue red brown	blue brown
2544	24	24	violet rose	28	pale yellow	10	pale yellow	5	red yellow	red brown
2544	24	24	violet rose	28	pale yellow	10	pale yellow	7.5	red orange	red brown
2544	24	24	violet rose	28	pale yellow	10	pale yellow	10	yel orange	pale yel brown
2561	24	24	violet rose	28	steel blue	10	steel blue	2.5	yellow brown	
2561	24	24	violet rose	28	steel blue	10	steel blue	5	blue yel brown	blue yel brown
2561	24	24	violet rose	28	steel blue	10	steel blue	7.5	blue yel brown	blue yel brown
2567	24	28	violet	28	pale yellow	10	pale yellow	2.5	blue red brown	blue yel brown
2567	24	28	violet	28	pale yellow	10	pale yellow	5	blue red brown	blue yel brown
2567	24	28	violet	28	pale yellow	10	pale yellow	7.5	blue yel brown	blue yel brown
2545	25	28	violet	32	Green yellow	10	pale green	10	red brown	yellow brown
2545	25	28	violet	32	Green yellow	10	pale green	5	red brown	Yellow red brown
2545	25	28	violet	32	Green yellow	10	pale green	7.5	red brown	yellow brown
2572	21	32	violet	28	pale yellow	10	pale yellow	2.5	blue yel brown	blue brown
2572	21	32	violet	28	pale yellow	10	pale yellow	5	blue yel brown	blue brown
2572	21	32	violet	28	pale yellow	10	pale yellow	7.5	blue yel brown	blue yel brown
2568	21	32	violet	32	steel blue	10	blue yellow	2.5	blue red brown	blue yel brown



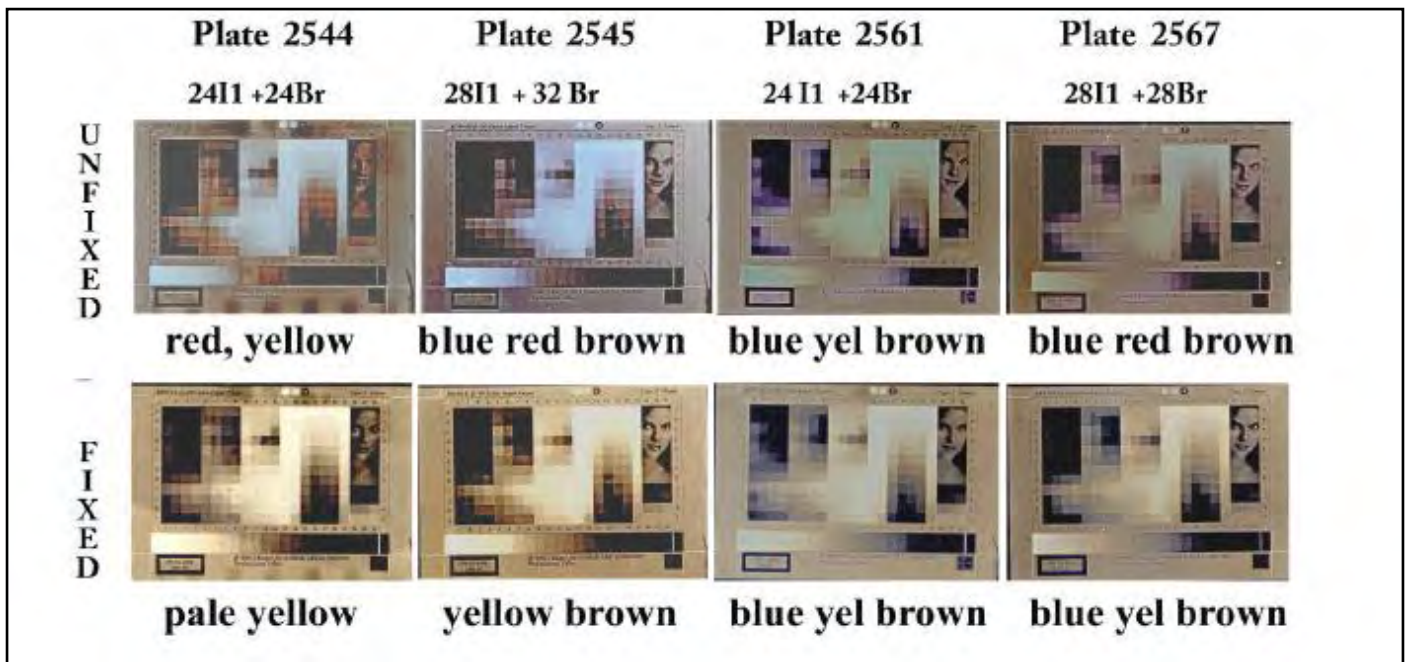


seconds over iodine and 24 to 32 seconds over bromine.

In Illustration 8 scans of the images on duplicate daguerreotype plates which had been fumed for 24-28 seconds over iodine and 28-32 seconds over bromine showed that the colors in these plates were similar but not exact duplicates. Colors in all four Daguerreotype images of the Q60 color target were measured by sampling areas A through L of the yellow, red and blue colorbars number 15,17 and 19 located on the right hand side of the D-type image ,before and after fixing, using the version CS3 of Adobe Photoshop® . Because the percentage of the colors in the

Q60 target varied with the brightness of the bars, the ability of the D-Types to reproduce those colors was expressed as the ratio of the color in the D-Type image to that of the same color in the transparency.

The average color content in the colorbars of the four unfixed daguerreotypes was compared with the color content of the corresponding colorbars in the Kodak Q60 target transparency in Illustration 9. The D-Types ability to reproduce the red, blue and yellow colors in the colorbars of the Q60 target transparency was estimated from the ratio of the color content in the scans of the D-Type image to the color content of the Q60 target.



The reproduction of colors in un-fixed plates 2544 and 2561 shown in Illustration 9 was higher for the red and yellow bars. Yellow content increased as the brightness of the colorbars in the target increased from L to A, whereas the red content decreased over the same range L to A. This suggested that solarization resulting from over exposure might have contributed to the yellow content. Plate 2544 had the highest yellow color content.

After fixing plate 2544 was re-scanned and the colors were remeasured and plotted vs the colorbar brightness in the scan of the Q60 target.

The yellow color content in the fixed D-Type image reached a maximum of 60 to 80% in the brightest regions A to D of the yellow colorbar image and appeared proportional to the yellow content of the colorbar in the Q60 Target. The maximum red content of the image in the fixed D-Type was only 50% and did not appear to be proportional to the red content of the Q60 Target. The blue content of the fixed D-Type image was a relatively flat 30% regardless of the blue content of the colorbar in the Q60 Target.

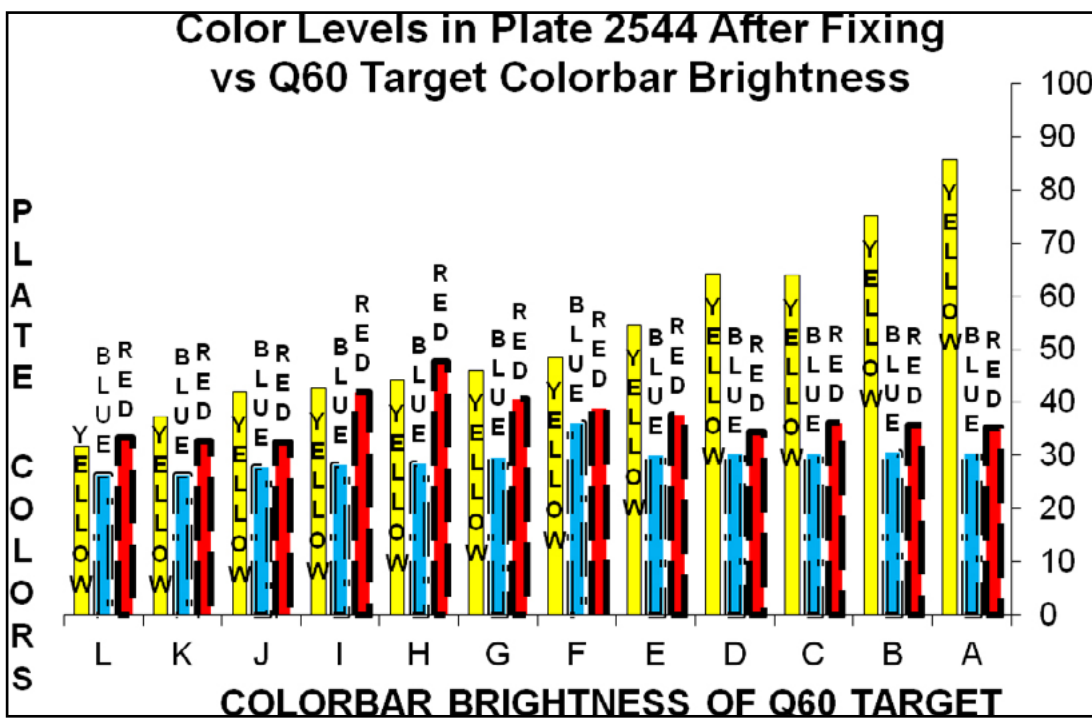
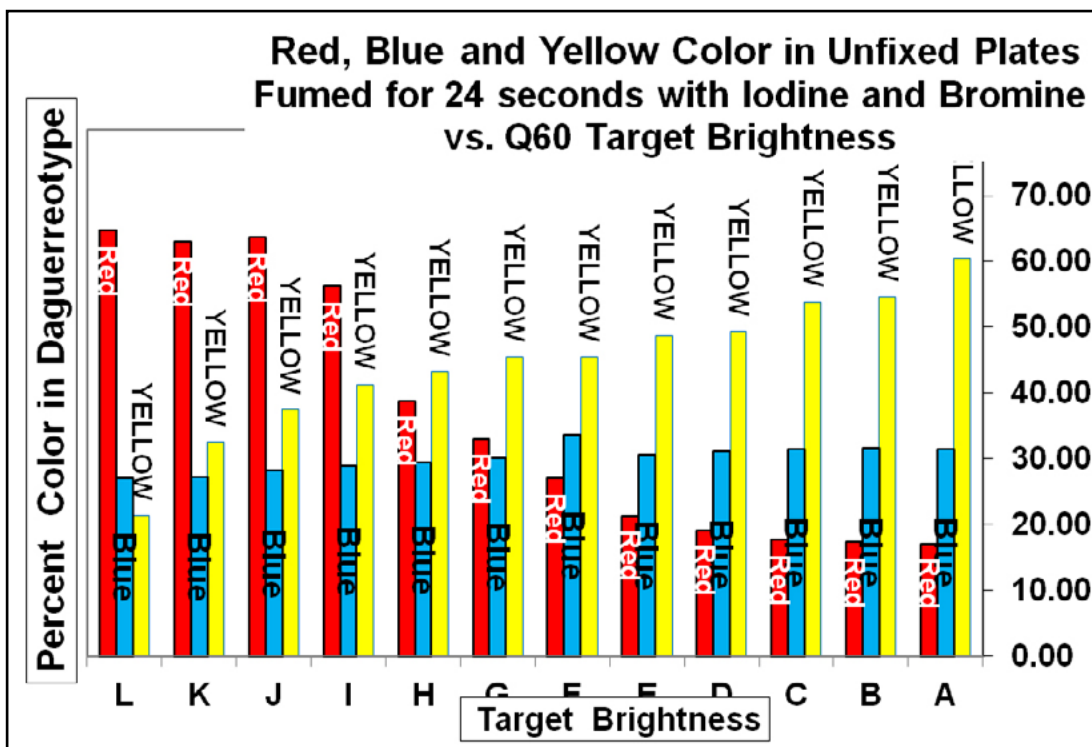
How does the color content of mercury developed daguerreotypes compare to the

color content of Nièpce Heliochromes? To answer that question a series of unfixed mercury developed daguerreotype prints were made from the Burder fruit bowl transparency shown in Illustration 11.

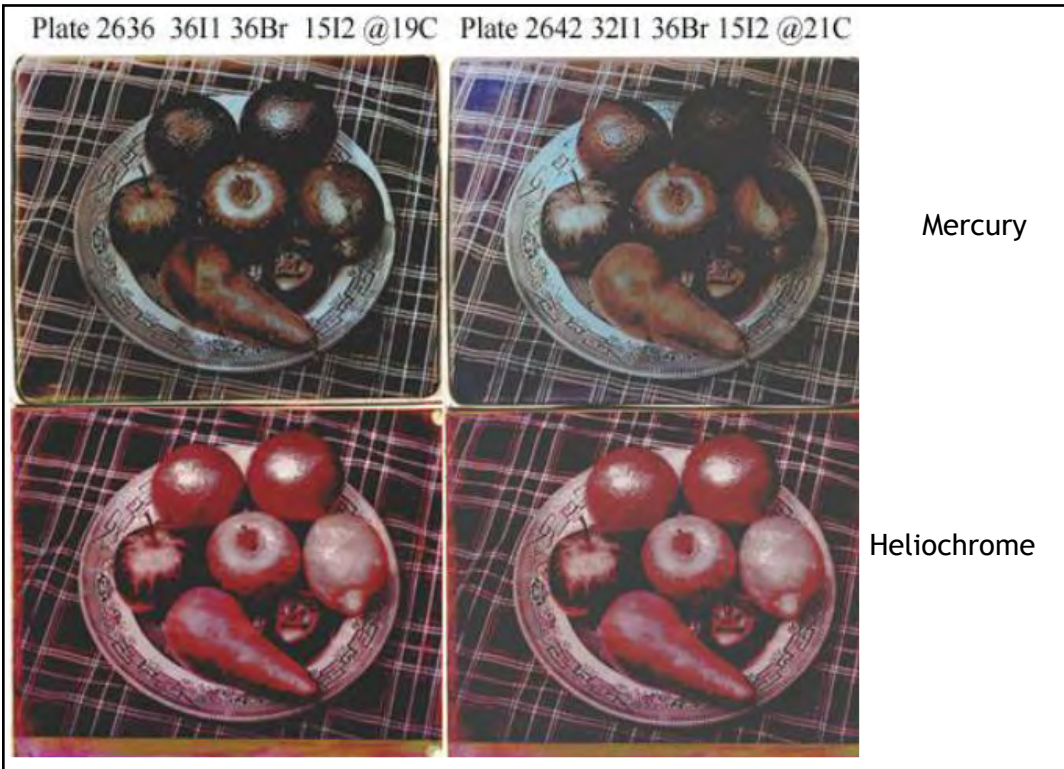
For comparison a 3 hour sunlight printout of the fruitbowl transparency was made on a heliochrome plate coated by 3 minute immersion in a solution of 3.2% Ferric Chloride and 2.4% Copper sulfate. In Illustration 12 the resulting heliochrome was compared to two xcans of unfixed mercury developed regular daguerreotype plates which had been fumed over iodine for 32 to 36 seconds and then over bromine for 36 seconds.

Unfixed mercury developed daguerreotype images had significantly lower color content than the corresponding Nièpce heliochrome images.

Those colors that were present, chiefly reds, blues, and yellows were there at significantly lower concentrations than the muted colors in the Burder/Green heliochromes. It is possible that these colors are a response of the conventional silver iodide/bromide coating to different combinations of UV and blue light reflected from the subject. With the exception



*Ills. 9 and 10*, The average color content in the colorbars of the four unfixed Daguerreotypes was compared with the color content of the corresponding colorbars in the Kodak Q60 target transparency



*Ills. 11 and 12*, Fruit bowl transparency from David Burder <sup>(9)</sup>

of yellow, these colors often appeared in areas of the image where those colors were not present in the original subject.

## CONCLUSIONS

The yellow tones present on mercury developed daguerreotype plates that had been heavily fumed with iodine and bromine are produced when the plates are exposed to subjects that are predominantly yellow.

Close examination of these plates before they have been fixed has revealed that to a limited extent these daguerreotypes images also contain measurable levels of other colors such as red, and blue.

Fixing in thiosulfate effectively removed most the colors from the image except yellow.

This is consistent with the theory that most of these colors are interference colors, formed by light reflected from layers of silver within the silver halide matrix which collapse during the fixing process, while the yellow color is formed by scattering of light by silver particles which remain permanent after fixing.

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WORK IN PROGRESS

# *“Daguerre’s painting by light”*

A project of the Department of Photography of the  
the Academy of Performing Arts in Prague (FAMU)



...”

the Film and TV School of

)



*Ill 1*, Detail of an american daguerreotype held by the National Museum Archives of Prague. Courtesy of National Museum Archive of Prague. Photo SMP

**ABSTRACT**

Daguerreotypes in the archives of the Czech Republic are an important part of the Czech cultural heritage. We intend to develop better techniques for the archiving, care and conservation of historical daguerreotypes, as well as to organize exhibitions to foster a wider awareness of these images as important historical artifacts. We aim to accurately reconstruct the original procedures for creating daguerreotypes, while closely observing the chemical and physical processes involved, in addition to reproducing and studying conditions that lead to the deterioration of daguerreotypes, so as to improve their preservation. This analysis will lead to the on-line publication of an in-depth study of daguerreotype damage and chemical corrosion, which will enable more effective practical maintenance and protection of daguerreotypes.

KEY WORDS\_History of Photography, Daguerre, Photographic Heritage, Preservation, Restoration of daguerreotypes, FAMU

by PETRA VÁVROVÁ and LIBOR JÚN, *FAMU, Prague*

The Film and TV School of the Academy of Performing Arts in Prague (“[FAMU](#)”) has for many years been one of the most important European and world film schools. Alongside the “traditional” film disciplines, the equally important Department of Photography has existed for a long time. In this department, the masters degree course “Restoration of photographs” has been established since 2009. This department is thus the only academic center in the Czech Republic dealing with the care of photographic materials.

Apart from the theoretical and practical training, both teachers and students pay attention to particular scientific and professional tasks. Cooperation with museums and archival institutions such as the National Museum, the National Technical Museum or the National Archive has been developed. The department also cooperates on a long-term basis with the Institute of Chemical Technology and art schools - the Academy of Fine Arts and the Academy of Arts, Architecture and Design. One of the largest tasks is the project devoted to the daguerreotype image, which has been running since 2012. The essence of the

project is to re-examine the daguerreotype process from which, subsequently, additional knowledge and processes are derived with the aim to improve the overall care of daguerreotypes. The content of the project consists of several stages which are gradually implemented according to a set schedule and then presented in professional workshops or conferences.

As noted above, the essence of the project is to re-examine the daguerreotype process. Here, among other things, close cooperation with the Institute of Chemical Technology has been fully implemented, allowing this photographic process to be reconstructed with exact scientific accuracy and verifiability. A necessary first step is the preparation of laboratory samples on which tests are performed. In this respect, our goal is to achieve the maximum conformity with historical materials, particularly in the nature and distribution of image particles.

In accordance with the available professional literature, every step listed below is crucial and it is necessary to pay attention to each. None of the available technological recipes is easy, which in the case of the reconstruction





III 2, Students examining daguerreotypes belonging to the National Museum Archives of Prague in the photographic conservation laboratory of Famu. Photo SMP



process may lead to serious errors.<sup>1</sup>

The daguerreotype process itself includes the following steps:

- Silvering the copper plate,
- Polishing the plate's surface to a high gloss,
- Sensitizing by iodine vapor (or bromine and chlorine),
- Exposing the plate,
- Developing by mercury vapor or by the so called Becquerel procedure,
- Fixing, washing and gilding.

Next, we proceed to the chemical analysis of daguerreotypes and daguerreotype samples. The Institute of Chemical Technology performs SEM/EDS<sup>2</sup> analyses of daguerreotype images using real daguerreotypes. Based on the analysis and measurements we have obtained our first specific knowledge to determine the processes in the area of artificial ageing and damage of laboratory daguerreotype samples. Comprehensive laboratory simulation of degradation and damage of the newly produced daguerreotypes was performed. Subsequently, the samples are subject to testing of new and effective methods of conservation and/or

restoration of daguerreotypes.

The next task solved in parallel is the creation of a digital database, serving as the atlas of daguerreotype damage. The atlas describes degradation, damage and surface characteristics of daguerreotypes and earlier restoration work on them with recommendations for appropriate care and storage. The atlas also includes Czech-English, English-Czech, Czech-Spanish and Spanish-Czech dictionaries<sup>3</sup> of technical terms linked to this area of photography. In the database a basic structure of the atlas was created. It also contains descriptions of the observed phenomena and photographic documentation of damaged daguerreotype materials. A methodology for determining the hierarchy of damage and mutual relations between forms of degradation, including context, has been created.

The atlas of degradation, damage and earlier restoration intervention on daguerreotypes is formed as an effective tool to improve the care of cultural heritage. The atlas of damage includes basic information characterizing a given daguerreotype, descriptions of various

*III 3*, Unidentified daguerreotypist, Portrait of two girls in striped costumes, Museum of Decorative Arts in Prague. [Browse the collection of Museum of Decoration Art in Prague on Daguerreobase](#)

types of damage, or conservation and restoration intervention, everything being documented by micro- or macro-photographs. All information and photographs will form a digital database for easy retrieval of all types of damage and other types of data.

For the atlas of damage a unique application in the programming language Visual Basic using the NET framework has been created. This application is equipped with a separate database in MS Access. To ensure compatibility with older versions, it was decided to use the MDB version. The MDB type was chosen as the best in terms of transferability to other computers, where only an OLE DB driver is used to transfer data.

The atlas application supports primarily input of descriptive data relating to daguerreotypes themselves, as well as materials making up the given daguerreotype and various data on the damage. All this data can be later modified in the application by authorized users. The application also allows messaging and user rights assignments to access the atlas of damage. Viewing the embedded data is possible using selectable filters. For adding and editing keywords, the editing part of the application is used. This editing element allows an authorized person to add, modify or remove keywords linked to damage, materials or image modification.

In implementing individual stages of the project (the results of which will, among other things, be summarized in a monograph in English) the vital importance of a careful and systematic survey of physical conditions of photographic materials - in this case daguerreotypes - is reaffirmed. Such a survey of the physical condition of objects of cultural

heritage seems increasingly indispensable when working with any collection. No decision on further procedures and care of individual objects can be made without a survey of the state of collections and individual objects. It is necessary that the survey also includes the description of the premises (depository) where daguerreotypes are deposited, i.e. including a description of the building, technical support and climatic parameters of storage of individual collections.

## CONCLUSION

The above described project is currently one of the key professional challenges of the course "Restoration of photographs", as well as the gradual integration of students into its various stages. It has affected the overall motivation of students positively and increased effectiveness of the studies. In addition, the topic positively influences the development of international contacts and further professional cooperation with this restoration course. The daguerreotype process standing at the beginning of photographic imaging, is an important part of both Czech and European cultural heritage and it can be expected that it will be paid increasing attention and care in the future. Unfortunately, daguerreotypes have often lacked this attention and thus in general it is necessary that the attitude of many archival, museum and gallery institutions towards this subtle photographic medium be changed. And it is exactly with this point that further meaning of the project "Daguerre's painting by light..." of the Department of Photography should be seen.

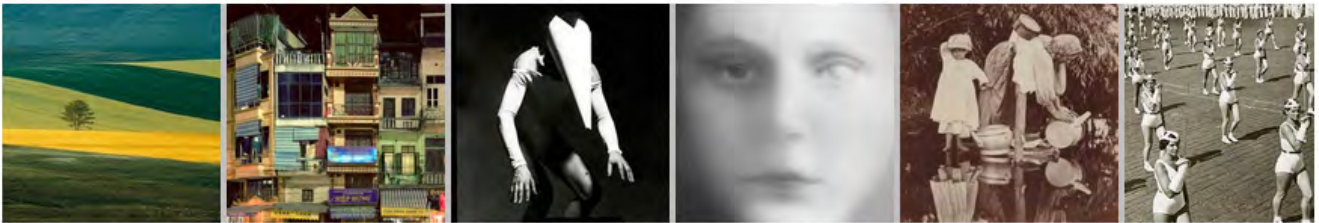
## NOTES

1. A similar problem is for example chemical nomenclature development, measurement systems change, chemical compounds concentrations etc.
2. SEM - Scanning Electron Microscope for a view of the surface structure EDS - Electron Dispersive Spectrometer for reliable determination of the elemental composition of the surface of an examined object.
3. The Spanish version of the atlas has been created as a reflection of incipient Czech-Cuban cooperation in the area of the care of photographic materials in Cuban heritage institutions.

# Daguerreotypes in Russia

## A project by the State Museum and Exhibition C

РОСПОТО



### ABSTRACT

The consolidated catalogue “The Daguerreotype in Russia” presents the hundreds of daguerreotypes currently preserved in the museums, archives and libraries of the Russian Federation, compiled and categorized by the State Museum and Exhibition Centre for Photography ROSPHOTO ([www.rosphoto.org](http://www.rosphoto.org)) in the context of a national project for the preservation of documentary photographs.

Among the represented collections we find: the Library of Academy of Fine Arts, St. Petersburg; the National Library of Russia, the State Museum of N. L. Tolstoy, the St. Petersburg Museum of Theater and Musical Art, National Museum of Republic of Tatarstan and the F.I. Tutchev Muranovo State Museum.

The catalogue has been edited by ROSPHOTO, along with specially invited archivists and experts on art history and Russian history. Elena Valentinovna Barkhatova and Tatyana Grigorievna Saburova have contributed their valuable essays on attributions and the history of photography.

KEY WORDS\_History of Photography, Russian daguerreotype, Cultural heritage, ROSPHOTO

by ANNA MAXIMOVA, deputy director of ROSPHOTO, Saint-Petersburg, Russia

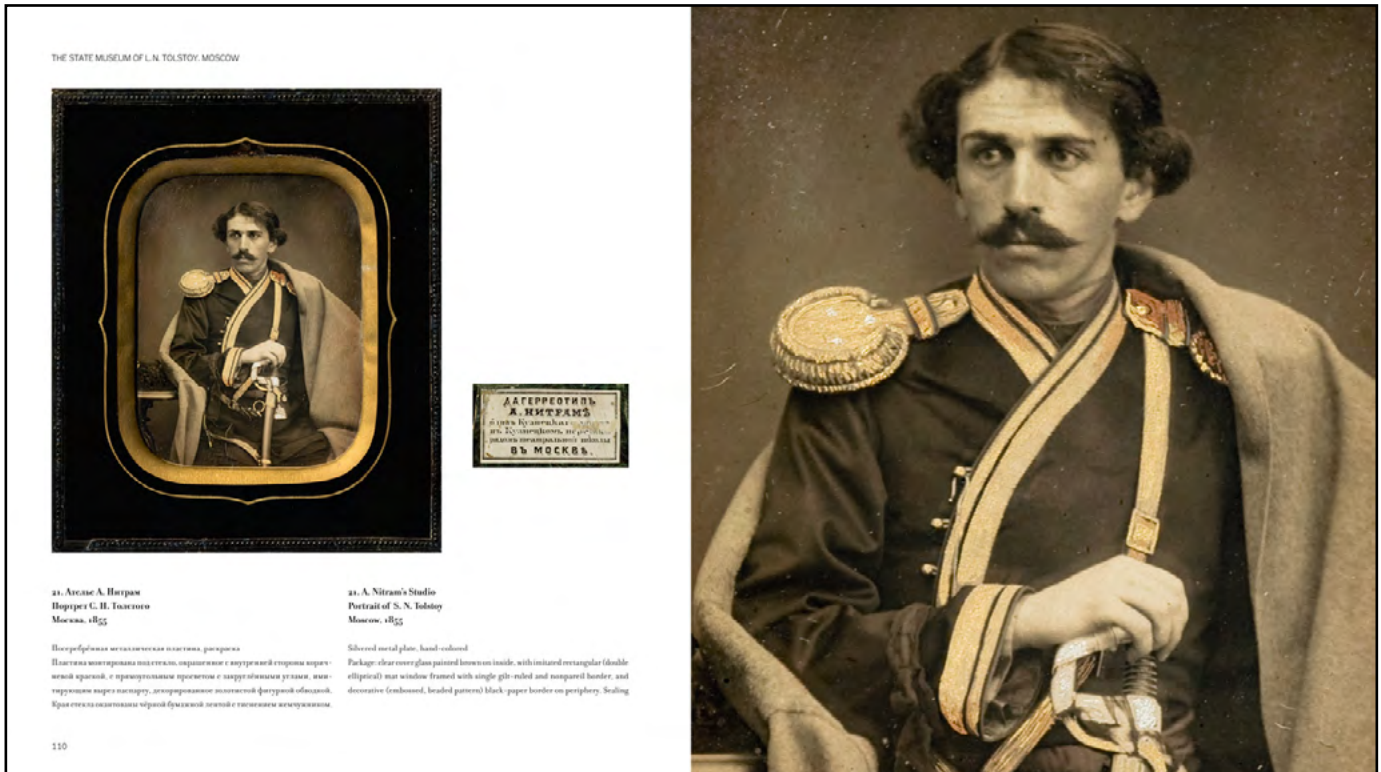
The first issues of the multivolume Union Catalogue of Daguerreotypes in Russia are in preparation for publication in 2014. This important project, which combines the data from dozens of archival, library and museum collections, has been launched by the [State Museum and Exhibition Center ROSPHOTO](#). The catalogue has been compiled under the general editorship of Elena Barkhatova and Anna Maximova with Tatyana Saburova as scientific editor.

The consolidated catalogue “The Daguerreotype

in Russia” acquaints readers with unique works of *svetopis* (photography), created by the one of the earliest photographic method. The catalogue presents only a few hundred daguerreotypes, currently preserved in museums, archives and libraries of the Russian Federation.

This relatively small number of extant “Daguerre’s mirrors” can be explained not only by the “fragility” of plates – they darken when touched by atmospheric pollutants, and may be easily and completely effaced – but also by

# Center ROSPHOTO in Saint-Petersburg



the very short period of active development and proliferation of this technology. *The Era of Daguerreotype* lasted about two decades, from the 1840s to the beginning of the 1860s. The majority of the featured pieces are studio-produced portraits. It was the commercially-oriented portrait that became the dominant form of daguerreotype in the Russian Empire. Unfortunately, data about the shooting locations is scarce, while the related daguerreotypes have not survived. The exceptions are the views of the estates, manors and interiors, taken in the 1850s, most likely under the order of their owners. Of note is the technical skill and artistic talent of both Russian and foreign daguerreotypists, whose portrait studios were opened in Moscow, Saint Petersburg and other cities and towns. Almost all of them - Martin Abadie, Ivan Alexandrovsky, August Baumgarten, Carl Dauthendey,

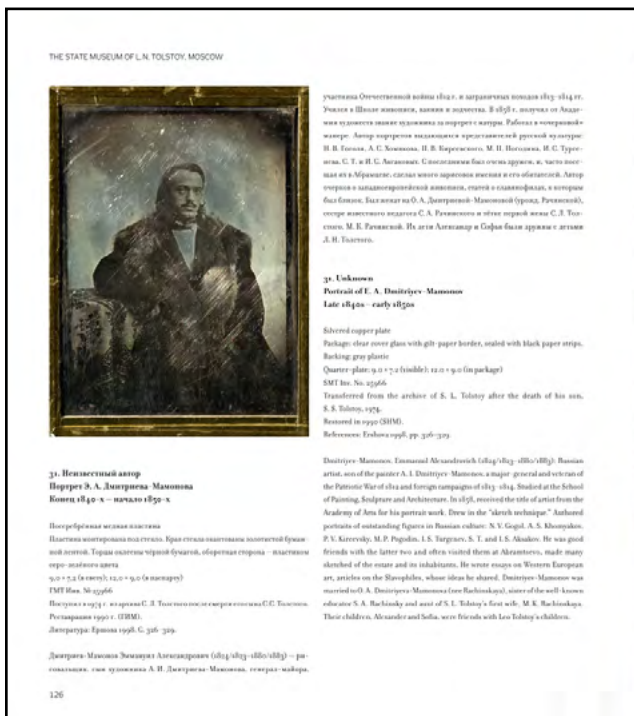
Sergey Levitsky, Joseph Peychez, Zwerner Brothers - underwent artistic training and demonstrated exquisite taste. The portraits of their contemporaries, created by those photographers, bespeak a great attention towards the models, composition, lighting and even the design of the daguerreotypes. A number of studios, such as the flourishing portrait miniature workshop of Carl Peter Mazer, simply extended the range of available services by means of the fashionable and commercially attractive daguerreotype. Their works are highly praised and justly continue the traditions of the Russian portrait art of the mid 19th century.

The daguerreotype portraits, which are featured in the catalogue, depict many important public figures of the age - high society members, politicians, writers, Decembrists - those, who otherwise could have been known

to us only from paintings and drawings. The core of this publication is the material collected by ROSPHOTO in the course of painstaking implementation of the multi-year National Program for preservation of documentary photographs in the public funds of the Russian Federation. The publication of a consolidated catalogue, already a work-in-progress for more than five years, was conceived as part of this enormous and ambitious project. The impetus for the publication of museum collections of daguerreotypes in Russia was given in 1999, by an exhibition at the State Historical Museum in Moscow, *At the Root of Photographic Art*. This was accompanied by the publication of a full catalogue of this largest of our country's collections of "silver pictures." A catalogue of the second largest collection of daguerreotypes, stored in the Hermitage, St. Petersburg, was published in 2012. It was preceded by the catalogue from the exhibition *The Epoch of the Daguerreotype, Early Photography in Russia*, held at the world's largest museum in 2011. In addition to these significant, in terms of quantity, metropolitan collections which have been studied and

published more or less systematically, there are quite a few rare specimens of early "silver photography" preserved in other museums, archives and large libraries across Russia which will have their first publication in this catalogue.

At the beginning of the preparation of the consolidated catalogue, the main task of the specialists of the Museum and Exhibition Center at ROSPHOTO was to identify and collect information about the unique monuments of early photography in Russia. However, at the stage of categorizing the material obtained from colleagues, it became clear that in many cases the items were in need of further scrutiny, particularly for dating and establishing of provenance and attribution. Not all the necessary information about daguerreotypes is known to the keepers: this sort of material, unlike paintings or graphic works, is still lacking in systematic studies. Also the lack of literature on the history of photography in 1840-1860 and professional directories of daguerreotypists, both Russian-born and foreigners operating in Russia, often complicates the attribution and dating of these ancient photographs.



E. BARKHATOVA. THE SUN IS DRAWING ON SILVER



Ателье братьев Блюменталь. Портрет А. С. Горчакова. 1852 (?). Фрагмент. Кат. 26  
Blumental Brothers' Studio. Portrait of A. S. Gorchakov. 1852 (?). Detail. Cat. 26



Complications also stem from the poor present condition of daguerreotypes due to their chemical and physical deterioration, which makes their analysis incredibly difficult.

The editorial board of the catalogue includes ROSPHOTO's officials along with invited experts: specialists in Russian history, in art history and archivists. The principal contributors of the essays on the history of photography and attributions are Elena Valentinovna Barkhatova (NLR) and Tatyana Grigorievna Saburova (SHM). Without their participation, knowledge and experience, this project would simply not have been possible.

It is the editors' intent that the volumes of this publication, while retaining the basic principles and general structure of item descriptions, will be distinguished from each other: some of them will feature several small collections, whereas others will be fully dedicated to a single major one, such as the volumes of the [State Historical Museum](#) (Moscow), the Institute of History of Russian Literature (Saint Petersburg) and the [Literature Museum](#) (Moscow).

The first volume of the catalogue presents the daguerreotype collections of the Science Library of the [Russian Academy of Arts](#) (St. Petersburg), [Museum of Ethnography](#) (St.

Petersburg), [State Russian Museum](#) (St. Petersburg), [National Library of Russia](#) (St. Petersburg), [State Museum of Leo Tolstoy](#) (Moscow), [St. Petersburg State Museum of Theatre and Musical Art](#) (St. Petersburg), [National Museum of the Republic of Tatarstan](#), [Multimedia Complex of Actual Arts](#) (Moscow), [State Museum of A. Pushkin](#) (Moscow), [All-Russian Museum of A. Pushkin](#) (St. Petersburg), St. Petersburg branch of the Archives of the Russian Academy of Sciences, and the [F. I. Tyutchev Muranovo Estate Museum Park](#). In most cases, a catalogue section dedicated to a particular collection is accompanied by an article on the history of the collection or some summary information about it.

Continuing their work on the identification of the monuments of early photography in the state archives of the Russian Federation, the compilers of the catalogue "The Daguerreotype in Russia" hope to publish the entire body of the existing "silver pictures", not only saving them from oblivion and "extinction", but also giving an impetus to further in-depth study of these precious assets of the nation's historical and cultural heritage.



**THE CATALOGUE INCLUDES THE FOLLOWING INFORMATION:**

- **Number in the catalogue**
- **Photographer:** the name of the studio or the owner (operator)
- **Studio location:** almost all daguerreotypes were made in Russia. A few exceptions have been included based on their historical significance. For example, there are, inter alia, two daguerreotype portraits of E. F. Tyutcheva, the second wife of F. I. Tyutchev, made in Munich, Germany, in the collection of the F. I. Tyutchev Muranovo Estate Museum Park
- **Caption (title)**
- **Original (if any) of the daguerreotype copy**
- **Date of creation**
- **Plate material**
- **Hand coloration (if present)**
- **Size:** with respect to whole plate (half-plate, quarter-plate, sixth-plate, etc.) and in centimeters: height by width; the size of the mat window (the visible part of the image) followed by the size of the entire package (or/and plate size, for previously dismantled and measured items)
- **Introduction to the catalogue**
- **Acronym of the museum, archive or library**
- **Inventory or accession number**
- **Inscriptions on recto and verso:** stamped or imprinted labels and markings of daguerreotype studios, framers, case makers, pass-partout (mat) manufacturers, etc. (preserving the original spelling)
- **Accession information**
- **Description:** package composition and most prominent features (indicated separately if they differ from the original one);
- **Information about restoration**
- **Indication of the first publication**
- **Exhibitions:** history of the item's presentation to the general public. Only abbreviated names of exhibitions are given (full names are given in the appendix at the end)
- **References:** publications in which the item was mentioned, listed or shown. Only abbreviated titles are given (full titles are given in the appendix at the end)
- **Biographical information about the sitter(s)**
- **Illustrations:** present a general view of the item and housing, as well as some details of the image. There are also detailed pictures of photographers' labels, owners' inscriptions and autographs
- **Appendix:** at the back of the catalogue provides an index of daguerreotypists, lists of acronyms and abbreviations, literature (in alphabetical order) and exhibitions (in chronological order). A full biographical index of daguerreotypists, photographs of studio labels, along with full indices of sitters and references, will be published in the last volume of the catalogue

# Daguerre's Camera in Florence

Biographies of the daguerreotype cameras held



# ance

by the Museo Galileo



III. 1, Detail of label of the original Giroux daguerreotype camera preserved by the Museo Galileo in Florence. Courtesy of Museo Galileo

# THE DAGUERRETYPE STUDIO



## ABSTRACT

The daguerreotype camera in the Royal Museum of Physics and Natural History of Florence was purchased in autumn 1839, shortly after the Italian physicist Tito Puliti had made the first Italian experiments with the new process. Built by Alphonse Giroux for L. J. M. Daguerre, the camera has been listed in the museum inventory since 1840 and it was modified and adapted a number of times according to the needs of the institution. By putting the few reports that still survive concerning this device together with the archives now kept in the Museo Galileo it is possible to reconstruct a sort of biography of the camera. The article investigates also the story of a second daguerreotype camera, the one built in March 1847 by Giuseppe Ponziani. Tracing these objects through the museum's history helps us to examine some aspects of photography that have not yet been sufficiently investigated, such as the influence on its development exercised by those scientific institutions that were the first to appreciate the importance of the new invention and that tried to exploit its potential in the scientific and social fields.

KEY WORDS\_History of Photography, Daguerreotype Camera, Alphonse Giroux, Giuseppe Ponziani, Museo Galileo in Florence

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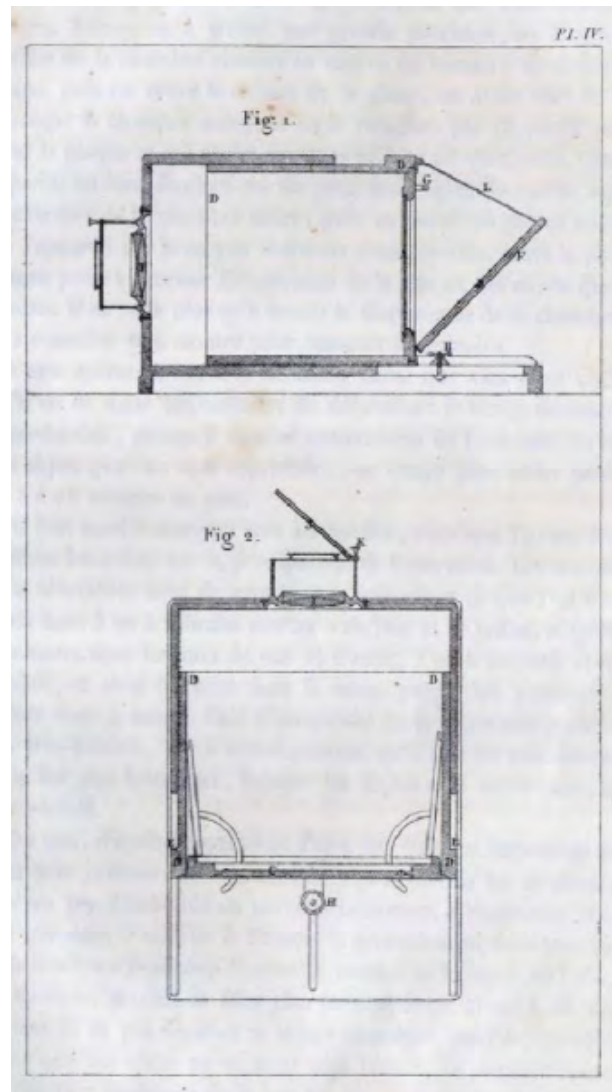
One of the first daguerreotype cameras to arrive in Italy was bought by the Marchese Grimaldi in Paris September 1839. The camera was handmade by Alphonse Giroux and L. J. M. Daguerre himself. It arrived in Florence just a few weeks after Daguerre had made his process public at the Académie des Sciences in Paris<sup>1</sup>.

Initially the Marchese loaned the camera to the Florentine museum of physics the "*Regio Museo di Fisica e Storia Naturale*". The following year he sold it to the museum after realizing the camera was extremely complicated and it would be put to better use by scientists and researchers in their fields<sup>2</sup>. The first daguerreotypes realised by scientists at the institute during their research have not unfortunately been conserved. Indeed they would have illustrated how photography was used in scientific research during the 19th

century. However the history of the cameras themselves could help us to understand better what the missing images might have shown.

The Regio Museo was inaugurated in 1775 to conserve the Medici's scientific collection as well as being used as a centre for science and research<sup>3</sup>.

In 1807 Maria Luisa di Borbone<sup>4</sup> founded the first school of physics and natural sciences within the museum. The first lessons in astronomy, chemistry, botany, zoology, physics and comparative anatomy were held there in 1829. In 1833 Vincenzo Antinori<sup>5</sup> became curator of the institute initiating an important era for the museum. Among collaborators were Giuseppe Gazzeri<sup>6</sup>, Gianpietro Vieusseux<sup>7</sup> and Giovanbattista Amici<sup>8</sup>. It was Amici who opened a laboratory for the construction of optical instruments such as microscopes and telescopes. He also worked to found a new



astronomical observatory, which was opened a few years later, after his death in 1863.

At the beginning the 1800s the museum had already set up workshops to build modify and repair precision instruments used in the museum. The presence of important inventors and scientists like Leopoldo Nobili<sup>9</sup> and Amici profoundly influenced the development of precision instrument technology. By 1844 the museum hosted the national centre for meteorology (S.N.C.I) one the most significant bodies in the museum. In 1927 the Regio Museo became the Institute for the History of Science and was initiated in 1929 when it hosted the first national exhibition of science history<sup>10</sup>.

We know that, the first Daguerrotype test in Italy was carried out at the Regio Museo in Florence, on 2nd of September 1839 by the physicist Tito Puliti<sup>11</sup>. He presented his plates at the Accademia delle Belle Arti on the 20th<sup>12</sup> of September 1839. The following month he took the plates and the camera to the first Congress of Italian scientists in Pisa.

*“Tito Puliti presented the instrument with which he was able to obtain images on a silver plate following the Daguerre method. Puliti explained Daguerre’s invention applying Newton’s ring phenomenon: the tone reduction, produced by light activity on the plates, which corresponds to the colours in Newton’s rings, is obtained by the metalochromic process, as observed*

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*when the light refracts on the fine surfaces themselves*<sup>13</sup>.

There was a second daguerreotype camera at the Florentine museum, the first being the French camera mentioned above. The second was constructed almost ten years later by Giuseppe Ponziani a carpenter who worked in Florence. The following is a description of the French camera as reported in the instrument inventory, which started in 1838 and successively adjourned.

*“The original daguerreotype model numbered no. 158 - lens embedded in a brass cylinder (0,06 cm), box frame with inclined glass plate, 5 box sections for negatives in glass, paper and silver plate, frame with large glass for positive images and 4 box sections with two metals trays”<sup>14</sup>.*

In the archives of the Regio Museo there are documents referring to this instrument from 1846 to 1851. As mentioned previously the daguerreotypes created in the museum have not been preserved however it is safe to say

that both these cameras were used frequently either because the museum was in fact a centre for scientific research or because the cameras were modified and repaired repeatedly over the years.

In 1846 the museum bought an achromatic lens from Hirsch of Munich, an optical instrument specialist based in Florence. The lens was purchased to minimise the chromatic aberration and thereby improve the quality of the images.

*“The original Daguerre camera which the museum possess has not been improved or altered by recent technological developments. To obtain similar results to those produced today it is necessary to fit an achromatic lens in the camera. We have found the necessary lens at Hirsch of Munich located in the city who have confirmed a price at 170 Lire. As such I’m officially requesting your permission to purchase this lens so that images we are asked to produce are the nearest to perfection possible. And that our instrument is on the*

same level as more recent models”<sup>15</sup>. This document proves that the scientists at the museum not only operated the daguerreotype camera for their own use and purposes but also to meet the demands of requests coming from outside the museum.

In March 1847 the carpenter, Giuseppe Ponziani<sup>16</sup>, constructed a new camera for the museum.

In the invoice which he presented to the museum, he lists a series of works he carried out to construct the new daguerreotype camera, and which essentially describe the wooden components of the new camera and associated equipment; these include 3 walnut cases for the three chemical stages in the process etc<sup>17</sup>.

The following year another invoice was presented listing the modifications he had carried out on both cameras: from the works listed it clear that the modifications were both general repairs as well as new pieces<sup>18</sup>.

Between 1848 and 1851 further modifications and alterations were carried out by Ponziani, the mechanic Corrado Wolf<sup>19</sup> and the Florentine glass maker Boccini<sup>20</sup>. Boccini had previously supplied plate glass used to protect the daguerreotypes in 1848: 36 plates from Germany and France were cut to the following measurements 15x13 cm, 14x12 cm and 16x12 cm<sup>21</sup> and the edges rounded.

In 1851 another modification by Ponziani is documented, however the camera which the work was carried out on is not specified, therefore we presume that it applied to the camera he originally constructed and not the French one. The work was related to the observation of the total solar eclipse on July 28th of that year and in the invoice he states that a Dollond<sup>22</sup> telescope, which was used to observe the eclipse, had been attached to the camera oscura<sup>23</sup>.

The fact that a telescope was fitted to the camera suggests that the camera was used to photograph the phenomenon as it was photographed elsewhere that day: by Berkowski at the observatory in Königsberg, Prussia, by Angelo Secchi in Rome and by Majocchi in Turin<sup>24</sup>. In Florence, the solar eclipse was describe by Giovanni Battista Amici and Giovanni Inghirami<sup>25</sup>.

A significant aspect that contributes to the development and diffusion of the history of photography and which has not been sufficiently investigated is the relationship between scientists, their scientific institutions and people in the photographic field. One of the first is the relationship between Amici and William Henry Fox Talbot during the early years and later when Amici offered to help publicize Talbot’s invention in 1841<sup>26</sup>. Tito Puliti was in contact with the optical specialists Charles Chevalier and Jules Duboscq. In 1839 the museum granted Puliti foreign travel expenses of 2,100 Lire<sup>27</sup>. The actual destination is not specified in the document but thanks to documentation dated 1848 there is evidence that the Florentine physicist was travelled to Paris in the years between 1839 and 1847<sup>28</sup>. Puliti and Chevalier were in a business relationship to purchase optical instruments for the museum in August 1847: in a letter dated August 22nd the Parisian specialist wrote that he had sent most of the items which Puliti had ordered and he also asked Puliti if he would send him a drawing or a photographic image of a monument<sup>29</sup>.

As far as relations between Puliti and Duboscq are concerned we know they met at the Universal Exhibition of 1855 in Paris. Soon after a business correspondence between the two began regarding the acquisition of optical instruments for the museum.

*“Pour le Cabinet de Physique du Musée I. e R. d’Histoire Naturelle de Florence, où je suis employé, il faut avoir un regulateur photo-electrique avec tous les nécessaires à démontrer les propriétés de la lumière pour le Microscope, le Megascope, et pour la photographie [...] Vous m’avez dit que je pourrai l’avoir pour le prix de 500 francs. Si vous avez la complai fance de m’envoyer votre Catalogue avec le prix des tous les autres accessoires et des instruments que vous avez exhibés à l’exposition [...]”*<sup>30</sup>.

Quoting the anthropologist Igor Kopytoff<sup>31</sup> we have effectively spoken about the “cultural biography of things” which help us to understand the historical significance of these objects: a mirror with a memory was a real example of a work in progress of the laws of physics, something whose use could

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be modified according to the necessities of the scientific field. *“Photography was the ally of any science based on observation”*<sup>32</sup> and the photographic image was not just an end but a means to an end, that is an intermediary stage in scientific research, a visual amplifier and the more precise it was the more useful it was in the observation of natural phenomena.

Significantly, in the 1850s, when the calotype process had already been supplanted by the increasingly popular collodion process, the Regio Museo, although renowned as being avant-garde, was still using the daguerreotype, this was probably due to the high quality and precision of the images.

The daguerreotype respected the proportions and outlines of the real objects faithfully, whereas the calotype tended to soften and shade the outlines making it a popular process with painters who used photography as an alternative form of artistic expression. Furthermore the fact that the daguerreotype produced positive images directly and therefore was considered an advantage by scientists. The quality and the immediacy of the results were much more practical than photographic processes which utilized the negative/positive system. Quoting directly from the work of

chemist professor Leonardo Doveri<sup>33</sup> in 1856, he wrote that: *“these photogenic drawings can be set on to paper and silver plates, however in the former first a negative is produced, that is the matrix which is used to produce the positive print, while in the case of silver plates or silver plated copper, positive prints can be obtained directly. As such the ingenious Daguerre method is favourable”*<sup>34</sup>.

Taking a brief journey through the archives at the Galileo Museum in Florence we have attempted to add another important piece in the history of the daguerreotype jigsaw puzzle. Of course the absence of the daguerreotypes themselves creates a small gap in the story. However, through the source material studied and disclosed we have touched upon a side of the history of photography that is not often frequented; its material culture. A culture which was strongly influenced by scientists, scientific institutions and their scientific activity which specifically required the use of photographic instruments.

The Daguerre camera is today conserved at the Galileo museum in Florence (inv. n. 554) but is not on public display, while the one built by Ponziani is unfortunately missing.

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### NOTES

1 M. Miniati, Museo di Storia della Scienza di Firenze in M. Falzone del Barbarò - M. Maffioli - E. Sesti, *Alle origini della fotografia: un itinerario toscano 1839-1880*, exhibition catalogue (Firenze 1989) Firenze, Alinari, 1989, p. 208.

2 *Ibidem*.

3 The history of the museum is from M. Miniati, Museo di Storia della Scienza. Catalogo, Firenze, Giunti, 1991, pp. X-XVI.

4 [Maria Luisa di Borbone, Regina d'Etruria](#) (Madrid 1782-Roma 1824).

5 [Vincenzo Antinori, scientist](#) (Firenze 1792-1865).

6 Giuseppe Gazeri, scientist (Firenze 1771-1847) in F. Abbri, Giuseppe Gazeri (ad vocem), in *Dizionario Biografico Italiano* (DBI) vol. 52 (1999), pp. 769-772.

7 [Gian Pietro Vieusseux](#) (Oneglia 1779-Firenze 1863).

8 [Giovanni Battista Amici](#) (Modena, 25 marzo 1786 - Firenze, 10 aprile 1863) italian astronomer, microscopist and botanist.

9 [Leopoldo Nobili](#), scientist (Lucca 1784 - Firenze 1835).

10 [Museo Galileo](#), Firenze

11 For the history of daguerreotype at the Museum see I. Zannier - M. Miraglia, *La fotografia italiana dell'Ottocento*, exhibition catalogue (Firenze 1979), Milano Firenze, Electa Alinari, 1979, p. 130; I. Zannier, *Storia della fotografia italiana*, Roma Bari, Laterza, 1986, pp. 7-8; F. Malandrini, Tito Puliti, in I. Zannier, *Segni di Luce. Alle origini della fotografia in Italia*, vol. I, Longo Editore, Ravenna, 1991 p. 139; M. F. Bonetti - M. Maffioli, *L'Italia d'argento 1839-1959*, *Storia del dagherrotipo in Italia*, exhibition catalogue (Firenze 2003), Firenze, Alinari, 2003, p. 22; S. Bernacchini, *L'Introduzione del dagherrotipo all'Imperiale e Regio Museo di Fisica e Storia Naturale di Firenze in "AFT" n° 47* (2008), pp. 49-54.



12 Esposizioni d'arte, Accademia di Belle Arti di Firenze, Sala Maggiore, sezione Prospettiva, Primi saggi di disegni fotogenici eseguiti col metodo del signor Daguerre nell'Imperiale e Regio Museo di Fisica e Storia Naturale in "Gazzetta di Firenze", n. 121, 8 ottobre 1839, p. 6, published in L'Italia d'argento, op. cit., pp. 28 e 30.

13 L'Italia d'argento, op. cit., p. 22, the quotation is taken from Atti della prima riunione degli scienziati italiani tenuta a Pisa nell'ottobre del 1839, Pisa, Tip. Nistri, 1840, pp. 20-21.

14 M. Miniati, Museo di Storia della Scienza di Firenze, op. cit. p. 208.

15 Firenze, Museo Galileo, Archivio, Registro del carteggio in uscita della Direzione 9 gennaio-18 dicembre 1846, ARMU Copialettere 027, p. 60 e Firenze, Museo Galileo, Archivio, Spese e contabilità gennaio 1846-gennaio 1847 aff. 31, ARMU Spese 065 published in S. Bernacchini, L'introduzione del dagherrotipo, op. cit., pp. 53-54.

16 The Ponziani are a family of carpenters in Florence. Information about them can be found in Archivio Storico del Comune di Firenze.

17 "Fatto un nuovo dagherrotipo composto di tre cassette l'una incanalata nell'altra con i suoi telai di noce di dentro e fuori che servono da guide per estenderli [...] con n. 2 sportelli di noce davanti con sue testate e addentate ferrate con moschetti e ganci e altre 7 cassette di noce dentellate di 12 quadre con assini d'albero intelaiate che portano la lamina per ritrarre con suo canale che porta altro sportello di bandone di latta con n. 3 cassette d'albero di 2/5 quadre alte 10 con suo sportello con intaccatura interna mascherato con altri vari pezzi di noce dentro che servono di guide per incanalare le dette cassette di noce che una serve a Sodare altre per Bromare e l'altra con tramoggio con sportelli e contro sportelli e suo trespolo per la fiaccola che serve per mercuriare con aste lungo (ill.) larga 12 con sue aste in canale e addentate che serve per reggere quando è tutto steso il detto Dagherrotipo derrato con vari pieri d'ottone che servono di guida per scorrere, L 200". Firenze, Museo Galileo, Archivio, Spese e contabilità gennaio 1846-gennaio 1847 aff. 16, ARMU Spese 066.

18 "Fatto un pezzo d'asse di soldi 10 quadra grossa soldo di castagno incassato n. 3 piedini d'ottone e invitati per tenere in piano i vetri del dagherrotipo. Lire 4 / Riadattato n. 2 cassette nelle camere nere del Dagherrotipo e mezzo un pezzo sopra alla detta camera per coprire l'aria. Lire 6-8 / Rincollato e rimesso dei pezzi al dagherrotipo di Francia ripulito e messo in bon ordine. Lire 4 / Fatto un telaio al 5/6 largo 12 di castagno che porta due Cristalli dentro con altro telaio di noce sopra a medesimo. Cristalli ed altro sportello dentro al medesimo. Telaio con testate di noce massello addentate in terzo con scalette dentro ed altri pezzi a dondolo mastiettati e messo n. 6 a correzione con pezzi d'ottone per sostegno al dagherrotipo. Lire 24" in Firenze, Museo Galileo, Archivio, Spese e contabilità gennaio 1848-gennaio 1849 aff. 4, ARMU Spese 067.

19 Corrado Wolf, meccanico di Norimberga, in P. Brenni e M. Misiti, Costruttori italiani di strumenti scientifici del XIX secolo, «Nuncius», 1, 1986, pp. 141-184; also cited in Pietro Thouar, Notizie e guida di Firenze e de' suoi contorni, Firenze, G. Piatti, 1841, p. 91. The intervention of Wolf on the daguerreotype concerns the provision of clamps and screws in Firenze, Museo Galileo, Archivio, Spese e contabilità gennaio 1848-gennaio 1849 aff. 4, ARMU Spese 067.

20 For this glazier there is no information except for the fact that the laboratory was located in Corso Adimari in Firenze, in Museo Galileo, Archivio, Spese e contabilità gennaio 1848-gennaio 1849 aff. 4, ARMU Spese 067.

21 Firenze, Museo Galileo, Archivio, Spese e contabilità gennaio 1848-gennaio 1849 aff. 4, ARMU Spese 067.

22 John Dollond (Londra 1706-1761) english astronomer and optic, he introduced achromatic telescopes in the mid-eighteenth century in P. Brenni, I costruttori stranieri di strumenti scientifici nelle collezioni italiane in E. Borchini, E. Macii, F. Vetrano, Strumenti di fisica e cultura scientifica nell'Ottocento in Italia, proceedings of the conference may 1991, s. l., s. n., 1993, pp.103-110.

23 "Giornata per riadattare e tagliare e rimesso assieme una Camera per Dagherrotipo e la detta applicata al canocchiale di Dollond. che servì per la Eclissi del Sole e più per aver fatto una pedana con i piedi [...] che serve per reggere il canocchiale medesimo" in Firenze, Museo Galileo, Archivio, Spese e contabilità gennaio 1851-gennaio 1852 aff. 15 bis, ARMU Spese 070.

25 [Giovanni Inghirami](#) (Volterra 1779-Firenze 1961) Italian astronomer and Piarist religious s

26 For relationship between Amici and Talbot See A. Meschiari, Corrispondenza di Giovanni Battista Amici con William Henry Fox Talbot, «Nuncius», n.1-2003, pp. 201-248.

28 The document refers to meteorological studies that he would take with him to Paris, Firenze, Museo Galileo, Archivio, Spese e contabilità gennaio 1847 - gennaio 1848 aff. 16, ARMU Spese 066.

29 Firenze, BNCF, Sala Manoscritti, Carteggi Vari, Lettera di C. Chevalier a T. Puliti, Paris 22 Août 1847, CV 294.46.

30 Firenze, Museo Galileo, Archivio, Registro del carteggio in uscita della Direzione 2 gennaio 1855-30 dicembre 1856, Letter by Tito puliti to Duboscq, dated 29 Dicembre 1855, ARMU Copialettere 034, p. 84. The address is "M. J. Duboscq 21. Rue de l'Odeon au fond de la Cour à Paris".

31 I. Kopytoff, The Cultural Biography of Things: Commoditization as Process, in A. Appadurai, The Social Life of Things, New York, Cambridge University Press, 1988, pp. 64-91.

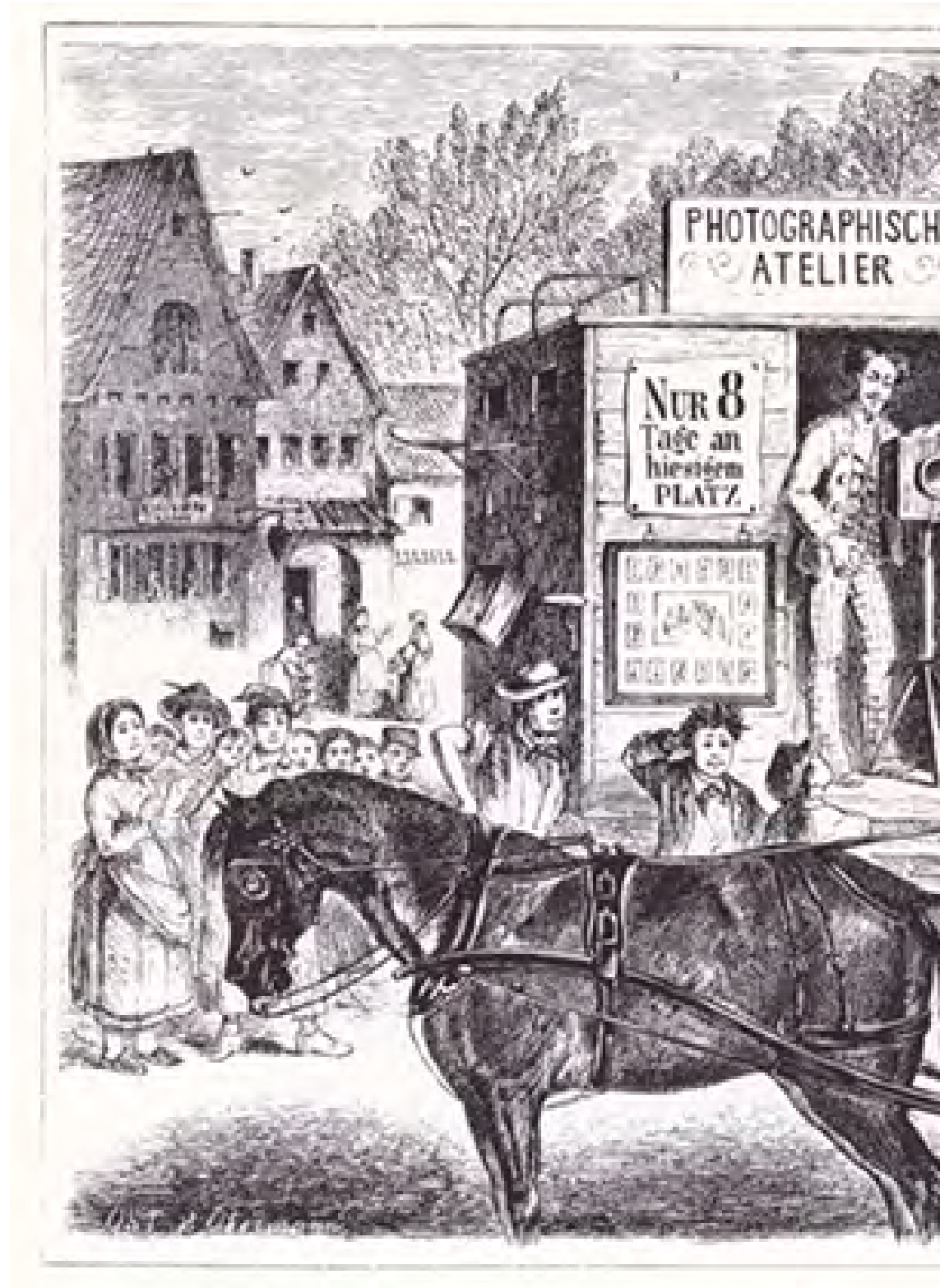
32 M. Tortelli, La fotografia e le sue applicazioni, in "Nuova Antologia", LXII, Orma, 1896, citato in L'Italia d'argento, cit. pg. 228.

33 Leonardo Doveri (Livorno 1826- Firenze1859). Italian chemist, who taught chemistry and physics at Liceo militare di Firenze in F. Pera, Ricordi e biografie di livornesi, Livorno, F. Vigo Editore, 1867, pp. 435-439.

34 L. Doveri, Elementi di fisica e sue principali applicazioni, Firenze, Galileiana, 1856, p. 308.

# The first photographers in ru

Itinerant daguerreotypists in East Frisia and Sch



# ural space

## leswig-Holstein



III. 1, In the second half of the 19th century itinerant photographers travelled with a mobile photo studio drawn by horses, wood engraving after E. Sues. Erich Stenger, 1865, Uwe Scheid, 1875. Image taken from Uwe Scheid, *Als Photographieren noch ein Abenteuer war*, 2nd ed., Dortmund: Harenberg Kommunikation, 1987, p. 48

## ABSTRACT

After the public announcement of the new invented photographic method in Paris in August 1839, it was in the role of the itinerant daguerreotypists to advertise and publish the method in the cities and rural regions. For these men it was also a new lucrative business. Most of them had a quite different professional background. In the beginning they travelled from town to town, from village to village before some of them settled in the cities and founded the first studios. Even then, they travelled around with their cameras for a couple of weeks per year to take portraits of people.

For the announcement of their arrival and the duration of their stay in a city, they used different advertising strategies, e.g. word-of-mouth advertising, advertisements in the newspapers, presentation of daguerreotypes in displays or even in exhibitions.

The routes of some of the first photographers are fairly well known, especially when they visited larger towns. Less is known about the daguerreotypists in rural regions, and hardly anything at all is known about the social and economic conditions of the travelling photographers. This article focuses on the northern regions of Germany, East Frisia and Schleswig-Holstein, two regions which developed quite differently.

**KEY WORDS** History of Photography, Itinerant daguerreotypist, Daguerreotype travelling equipment, East Frisia, Schleswig-Holstein

by UTE WROCKLAGE, freelancing art and photo historian and teacher

The pioneer era of the daguerreotype has primarily become a story of individual photographers and the beginning of a progressive technology in the history of photography within the 175 years since its invention. The real pioneers, the itinerant daguerreotypists, who essentially contributed to the distribution of the new invention to the small towns and villages of Europe, receded into the background. Their work is mentioned in the photo historical publications more rarely than the “big names”. This is partly because of the poor remaining sources.

Provided that the itinerant daguerreotypists made stopovers in larger cities, they have left their traces in advertisements in the local press, in concession records and the index of strangers in the regional administration, the only evidence we know for their stopovers. Until now, documents from such pioneers are unknown. Currently, the rural regions are not well researched in the history of photography, exceptions for example are East Frisia and Schleswig-Holstein, two North German regions<sup>1</sup>. Who were the first daguerreotypists, where and how did they offer their services? How did they travel around with their equipment in the country? Which problems and surprises

were they facing on their way? How was the acceptance in the population? These and further questions shall be traced in these two agrarian regions of Germany.

Before the photographers appeared with their apparatus in the rural regions, the population had already heard about the invention of the daguerreotype from quite a number of press reports. As of October 1839 the report of the French physician and politician Francois Arago for the Academie des Sciences in Paris was available in some bookstores. One month later the bookseller Friedrich Asschenfeld offered the first Daguerre camera in the Hanseatic city of Lübeck and a few weeks later the urban population had the opportunity to gaze at the first daguerreotypes from Paris. In Kiel, an art dealer displayed daguerreotypes of the Louvre and the Parisian baths in the beginning of December 1839. A Hamburg bookseller travelled with some daguerreotypes for sale to the “Umschlag” in Kiel in the beginning of January 1840, a supraregional market for financial transactions, goods and entertainment. He moved on with the new images to further markets in Eckernförde, Schleswig, Flensburg and Rendsburg, introducing the new picture medium to the inhabitants and dealers.



From 1840 to 1848 approximately 48 itinerant daguerreotypists found their way to Schleswig - Holstein. They were from the nearby city of Hamburg, but also came from Prussia, Denmark, France and Austria, Bavaria, England, the Netherlands, Saxony and Switzerland. In the same period only five itinerant daguerreotypists are known in East Frisia. East Frisia was accordingly poorly served. In contrast, Schleswig and Holstein received more traffic as they are well situated on an important journey and trade route from Hamburg and Altona to Denmark and Scandinavia.

### WHO WERE THE FIRST ITINERANT DAGUERREOTYPISTS?

Their professional background was very diverse, innkeeper, pest-exterminator, watchmaker, carpenter, opera singer, an actor and art flower manufacturer, gymnastic artist, dentist etc. At first many operated daguerreotyping

as sideline, like the gymnastic artist and waxworks owner Carl Barthold from Hamburg. He advertised in February 1846 in Schleswig that he will daguerreotype in the morning and be a showman in the evening. Some quickly gave up taking daguerreotypes and offered their equipment for the sale. Most constant were the artistically or technically educated ones, such as the miniaturists, portrait painter, silhouette cutter, chemist, optician or physicist. After travelling a while from town to town, these men made their second occupation into their main profession, settled with a studio in a town and travelled around in the region for only for a few weeks in the summer months. The education of only a few photographers can be reconstructed, e.g. the trained actor Carl Heinrich Neupert (1803-1857)<sup>2</sup>. After his move from Hamburg to Christiania he first produced art flowers. When the daguerreotypist Carl Ferdinand Stelzner (1804-1894) stayed and worked in Christiania for a month in August

III. 2, Carl Ferdinand Stelzner, Group of three women and three men at Ladegården manor in Oslo, daguerreotype taken during summer 1843 when Stelzner was in Norway, National Library of Norway, FAU067. [Browse Stelzner's daguerreotypes on Daguerreobase](#)

III. 3, The "Nordlyset" July 5th, 1844, National Library of Norway. In the newspaper is published an advertisement by Carl Neupert about his daguerreotype portrait service in Trondhjem. There is also a mention about Stelzner's earlier stay in the city. See it on [Daguerreobase](#)



1843 (Ill.2), Neupert (Ill.4) learnt the new craft from him. Eight months later, in May 1844, he announced in the newspaper, that he has succeeded in making good portraits. (Ill. 3) After four weeks he went off on travels via Kristiansund and Bergen to Trondheim. As an itinerant daguerreotypist he travelled around in Scandinavia, the Baltic and parts of Russia. Neupert was not alone in learning the photographic process from other daguerreotypists, others experimented over a longer period before they gained reasonable results and tried to get orders.

### **HOW DID THEY TRAVEL AROUND WITH THE EQUIPMENT IN THE COUNTRY?**

Traveling in first half of the 19th century was generally very arduous. The railway network was still spreading and connected only the bigger towns and commercial centres. In the rural areas one travelled with one's own horse and carriage or by the stagecoach. These journeys were long, the streets were bad, not paved and in bad weather muddy and almost impassable. The passengers sat closely together and were shaken up by each pothole in the unsprung coaches. How did they carry their daguerreotype equipment, which

included a camera with lens and the ground glass screen, a tripod, a headrest, iodine and developing boxes, chemicals in small bottles, a stock of plates, cleaning material, paper or brass mats, cover glasses and, perhaps, small wooden frames?

The equipment, packed well, did not take a lot of space. Most of the equipment was made of wood and could be packed easily in a handy box or a little bag, as Trudpert Schneider and his sons used, and so it could be transported without problems on the stagecoach or the train. (Ill. 5). If they were travelling by foot, they perhaps used a handcart or even owned a horse and cart. In 1842, Swiss Jean Baptiste Isenring (1796-1860) provided headlines in the Munich press. He had ordered to get built a heatable "*Sonnenwagen*" (sun wagon), which was furnished with a bed, a desk and a portrait studio<sup>3</sup>. One can presumably imagine Isenring's vehicle looked like the wood engraving of E. Sues in 1865 (Ill. 1). Isenring's "*Sonnenwagen*" was in 1842 a little sensation for the Munich population as well for the itinerant trade, because in the Munich "*Tagblatt*" of 27th September 1842 one could read that the, "*art is not going to the bread anymore, but now it drives to the bread*".



### WHERE DID THEY SET UP THEIR TEMPORARY STUDIOS?

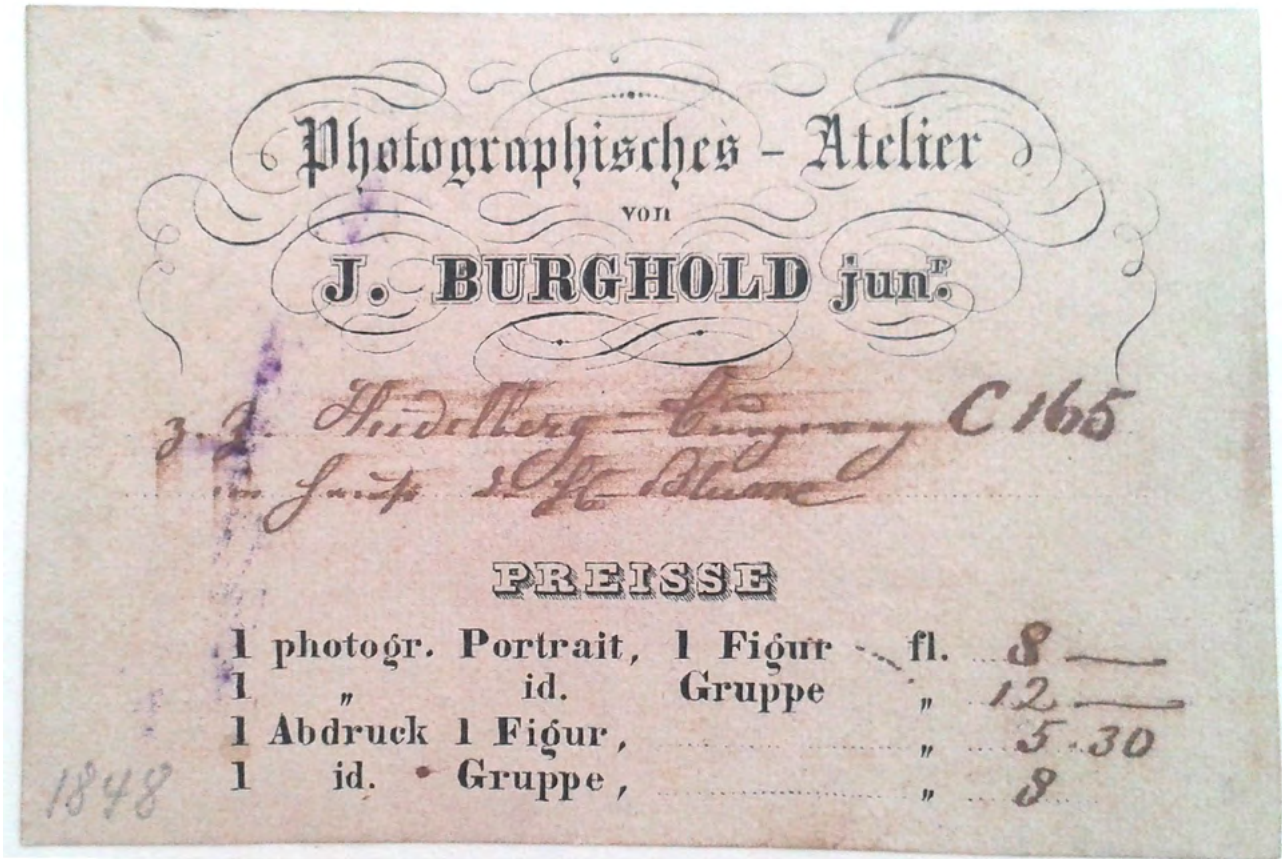
With his “*Sonnenwagen*” Isenring was independent of all local conditions, could stop his portrait studio on wheels anywhere and immediately start portrait work. His competitors had to look for a suitable room for daguerreotyping. They moved into accommodation in private quarters or inns and worked at a place for as long as they found customers. If the weather permitted, they worked outside, in the garden or backyard, where it was brighter than in any interior. As scenery they were content with a bright house wall, a room wall or a white cloth. A little space for the sensitization and development of the plates could be installed anywhere in a few minutes, as the dark rooms did not have to be extremely light-tight. In two to three hours everything was set up.

In the North German regions the weather often made the work more difficult for the travelling daguerreotypists, particularly in the autumn and winter. From 1841/42 on it was technically possible to take photographs not only in sunshine but also in grey weather; however, rain and snow frequently forced them to stop work. In December 1850 the

painter and daguerreotypist G. Hünerjäger (1800-1884) informed his clients, that he will prolong his stay in the hall of the Aurich Inn “*Deutsches Haus*” until after the Christmas period, as he was prevented from taking daguerreotypes because of the constant grey weather. The lighting conditions could be improved in glass houses. The itinerant J. Behrens publicised in Emden his “*heated glass pavilion*” for the winter. This was made possible because business-minded inhabitants in East Frisia occasionally modified hot houses into photographic studios and let them for rent to the itinerant photographers for the winter months<sup>4</sup>.

The early stage of photography is closely connected with the markets taking place once or twice a year. At the fairs the native and surrounding population did not just stock up on vitally necessary goods for the coming months or sell their surplus production. Apart from being a place for exchanging goods and money the market was also a place for swapping information and for enjoying entertainment. Together with the farmers and dealers, the showmen, travelling entertainers, singers and animal tamers came into the town. They brought a welcome intrusion and diversion into the otherwise monotonous and unchanging

III. 5, Trutpert Schneider’s and sons’ case for transport of their daguerreotype camera and utensils, image taken from Leif Geiges, T. Schneider & Söhne. Vom Dorfschreiner zum Hofphotographen, Freiburg i. Br.: Schillinger Verlag, 1989, p. 41



days of the people<sup>5</sup>. Alongside the wild animals and curiosity cabinets, photography was one of the visual sensations which were offered at the fairs. This structure of trade, market and entertainment was common all over Europe, and these markets were connected by the itinerant dealers and showmen.

Kiel in the dukedom of Holstein had a certain appeal for itinerant daguerreotypists, less because it has a university and port than because of its importance as a trade and shopping centre. During the "Kiel Umschlag" many people came to the town from near and far. Among them, the daguerreotypist Fr. Beurmann from Hamburg was repeatedly found at the fair offering his daguerreotype services. Showmen such as the aforementioned gymnastic artist and waxworks owner, Carl Barthold from Hamburg, always amenable to new technical developments, gained advantage from the attraction of the new and exotic things by using the photography as a further source of income (Ill.6). At the beginning the fairs and markets

were also the home of the daguerreotype, a fact which is hardly mentioned in the literature of the early history of photography.

The entertainment started with the fascination for the technical apparatus, some pioneers asked for admission to view it. The magic of a photographic picture fascinated the audience of the fairs just like the painted and drawn fantasy pictures of the peep-boxes or panoramas. Moreover the new technique, which was advertised as, "*the sun burns the portrait on the plate independently*", was something magical for the audience. For satisfying one's curiosity they paid admission to admire the apparatus, watch a portrait sitting or see the displayed daguerreotype images.

#### HOW DID THEY ANNOUNCE THEIR TEMPORARY STUDIO?

According to demand, they decided to stay for a couple of days or even weeks in a village or town. In a small village word of mouth or the

Ill. 6, Advertising sheet and label of J. Burghold jun. with his temporary address in Heidelberg, paper, light brown, 57x86 mm, Museum Ludwig Köln, Sammlung Stenger, MLK FH\_YY\_4



simple residence in a well-known pub was sufficient advertising, in small towns and for short-term stays they informed the population about their arrival with placards and handouts or engaged a bell man.

In bigger cities advertising had to be used a little more extensively. Usually they announced their arrival in the local newspaper, distributed advertising leaflets and displayed samples of their daguerreotypes in local art and book stores or placed a showcase in front of the temporary studio. A very popular technique was letters to the editor in the local newspaper. The quality of the portraits were praised to the skies and a visit was highly recommended. The letters were signed just with an abbreviation or with a pseudonym such as “layman of daguerreotype” (the daguerreotypist Louis Reunpagé from Berlin).

In the advertisements they set out their wares and qualifications, e.g. portrait painter, the location of the temporary studio, the opening hours, their special offers, additional information about the interior and about the prices for single and group pictures. A typical advertisement is for instance the one of Fr. Beurmann, who stayed in Kiel in July 1844. He recommends his daguerreotype studio at the Alte Wall No 116, during the time of the trade market in Kiel. *“The undersigned will stay here only for a short time and sincerely offers services for taking daguerreotype portraits in black, coloured, gold and copper cards, at a price of 8 to 3 M. The studio is heated and the time for a meeting is daily from 10 a. m. to 3 p. m. NB. The staircase to the studio is from the side behind the wall. F. Beurmann from Hamburg”*<sup>6</sup>. Another daguerreotypist J. Burghold jun. added his address and the prices in writing on his 57 x 86 mm leaflet. (Ill. 5)

A popular method in advertisements was to introduce oneself as especially competent in daguerreotyping or to otherwise lift oneself out of the mass e.g. by adorning oneself with name suffixes, which particularly impressed the people in the provinces. The suffix “from Berlin”, “from Hamburg” or “from Hanover” etc., as Fr. Beurmann added in his above advertisement, added a certain cachet of the main cities to the photographers. A photographer, who came from Hanover

to East Frisia, was regarded as something special, because Hanover was the seat of the government and the residence of the king.

To state one’s origin using the suffix of a German city, was mildly helpful. Much more effective was to add a French suffix, which associated one with the country of origin of the daguerreotype. Johann Jacob Bachmann from Zurich called himself “*typeur à la Daguerre*” during his stay in Hamburg<sup>7</sup>. Some others changed one of their forenames into a French version, so Ludwig changed to Louis and Georg to George. The “*strange and unknown*” obviously had an additional appeal and increased the reputation for the audience. This was criticized by the Munich “*Tagblatt*” of September 27th in 1842, in writing “*if Mr Isenring would be from Paris or London, his performances would receive more attention by the good Germans...*”<sup>8</sup>.

For proof of their talent and for advertising the daguerreotypists presented examples of their work in exhibitions. Beside art and bookstores the customers occasionally got the opportunity to view the daguerreotypes in inns and private residences or they were displayed in showcases at a busy street or place.

#### **WHICH PROBLEMS AND SURPRISES DID THEY FACE ON THEIR TRAVELS?**

Occasionally it happened that the itinerant daguerreotypists arrived at a small town and were confronted with competitors, a settled photographic studio or another itinerant photographer. They were forced to move on and to look for a new location. It was also possible that the aliens’ police refused to grant a permit or the “*Landdrostei*” (regional administration) denied them a trading license. In Prussia from 1845 and in the Hanover kingdom from 1848 on, photography was classified not as art, but as a mechanical work, in so far it was regarded as trade. Provided that the trade was performed for a consideration and itinerantly, a trading license was required. For the trading license a minimum age of 25 years and the presentation of a qualification certificate was necessary, which was partly presented in form of daguerreotypes. However, in other cases an official certificate

was required. The “*Landdrostei*” tried to keep the number of photographers on a low level until 1861, probably to assure the livelihood of the first settled daguerreotypists in East Frisia. The quantity of the chemicals (bromine, iodine, mercury etc) and the plates had to be planned for well before the journey. If they were away on business for several months, the chemicals perhaps could be bought at a local pharmacist, but the plates were more difficult to obtain. In East Frisia and Schleswig-Holstein not many daguerreotypists were settled in smaller towns, where perhaps plates could have been bought. For example, the first studio in the East Frisian Emden was opened in 1848, in Leer and Norden only in 1859, and in Schleswig-Holstein it was in Lübeck in 1843. So, during his stay of several weeks in Emden it turned out for the daguerreotypist Hünerjäger, that because of unexpected demand his plate stock came to an end until on July 25th, 1848, he advertised in the local newspaper “*that he is now supplied with plates of all sizes*” again and kindly asks all ladies and gentlemen, which still wish to be daguerreotyped by him to inform him before August 10th, “*because then he definitely will depart*”<sup>9</sup>.

Christian Jørgensen (1811-1878), in his main profession as painter and also daguerreotypist in the small village Rackebüll (Ragebøl), who operated as a photographer from 1848 to 1858, kept a very precise account of his expenditures<sup>10</sup>. He ordered the required photographic chemicals, plates and frames from Flensburg by letter. The parcel reached him by mail approximately 10 to 14 days later. There existed a daguerreotype studio in Sonderburg, which was not too far away, but either the owner also had to order by mail or he did not want to supply Jørgensen because of the competition. In Schleswig and Holstein, however, the daguerreotypists ordered their material mainly in Hamburg for the first ten years. Only from 1852 onwards were appropriate dealers to be found in Altona, Kiel and Flensburg<sup>11</sup>.

### WHAT DID THEY OFFER?

The services offered were not different from those of their settled colleagues. Besides portraits they offered, from the mid of the

1840s, reproductions of oil paintings, drawings and other objets d’ art - a profitable business, which could be done outside the opening hours for portraiture. Some also introduced the technique to the audience and sold cameras to interested ones.

“*Tasteful frames ... as well as Berlin and Parisian products in a great choice*”, recommended the itinerant daguerreotypist G. Hünerjäger in an advertisement before Christmas. Because of the sensitivity of the polished surface, daguerreotypes were handed over only in air and dustproof glazing. Portrait customers were therefore also potential buyers of additional items such as frames, cases or pieces of jewellery to house the silver-plated copper plates. This presentation increased the value of the objects, as it had done previously for miniature and medallion portraits, and therefore they were popular presents for relatives and friends. Initially only for the aristocracy and the prosperous bourgeoisie could afford daguerreotype portraits. In 1844 a quarter plate cost approximately two Thaler in Berlin, which corresponded to two weeks wages of a carpenter. These customers wished to possess a representative portrait of themselves and their family, which underlined their status with all the insignia of the elevated bourgeoisie. In the country the citizens and prosperous farmers became the customers of the itinerant daguerreotypist.

### WHAT DID LOCAL PEOPLE THINK OF THE VISITING DAGUERREOTYPISTS?

The itinerant daguerreotypists were confronted not only with admiration, curiosity and appreciation by the population. They were credited with magical power, so even a paralysed person was dragged in front of Carl Dauthendey’s camera, who hoped for a cure from the apparatus<sup>12</sup>. They were also regarded as magicians, who are paying homage to a mysterious and wonderful magic in the darkroom. In the eyes of the common people, they were similar to prestidigitators. However, curiosity for the technology prevailed and gained approval, as the daguerreotype corresponded with the ambition for precision and truth, which was already present in painting. And it is exactly

this precision and truth in the daguerreotypes, which is always admired and pointed out by the contemporaries in newspaper articles and in letters.

### **WHAT WAS THE INCOME AND LIVELIHOOD FOR THE DAGUERREOTYPISTS?**

In general, photography was still a risk within the first years. Whether it would be profitable or not, was unforeseeable. There were not only technical difficulties, but also in society some resistance to overcome. Moreover, the daguerreotyped images were not affordable for the broad population. In Schleswig-Holstein there were still more portrait painters working than daguerreotypists between 1840 and 1850, as Uwe Steen stated. Not until approximately 1850 did the ratio change and the daguerreotypists experience a lucrative business for a couple of years. August Petersen from Røkjær at Tondern stayed in Tondern for 14 days in 1859. It is known, that he took between 300 and 400 daguerreotypes in these two weeks, for three Marks per piece. By comparison, in 1854 the average annual

income of a journeyman was approx. 300 Mar<sup>13</sup>.

The introduction and spread of the photographic method into the provinces is due to the itinerant daguerreotypists. However, their pioneering work is not a history of "great" names, many remain unknown, because they have not advertised in any newspaper. On the other hand there are names for which not a single daguerreotype is known. Some of them had a good income, however, some died impoverished, like the previously mentioned Carl Heinrich Neupert, who travelled extensively in Northern and Eastern Europe. After 12-years of daguerreotyping he returned to his hometown Schleswig in spring 1856. He announced in the local newspaper not his photographing work, but a declamatory entertainment as an actor, his original profession. He died of seizures as a result of a brain disease and neuropathy in the Schleswig poorhouse on January 28th, 1857. His illness presumably can be explained by mercury poisoning, the chemical that was needed for the development of the daguerreotype plates - a fate - which many of the pioneers shared with him.

### **NOTES**

1. For Schleswig-Holstein see the publications of Uwe Steen, especially *Die frühe Photographie in Schleswig-Holstein*, in Schleswig-Holsteinisches Landesmuseum, Schloß Gottorf, Schleswig, *Die Photographische Sammlung. Eine Auswahl zum 150jährigen Bestehen der Photographie*, Ausst.Kat. , Schloß Gottorf 1989, pp. 17-23, and the same, *Die Anfänge der Photographie in Schleswig-Holstein (1839-1848)*, in Nordelbingen, vol. 56, 1987, pp. 101-150. For East Frisia see Detlef Hoffmann und Jens Thiele (eds.), *Lichtbilder - Lichtspiele. Anfänge der Fotografie und des Kinos in Ostfriesland*, Marburg: Jonas Verlag, 1989, especially Christian Timm, "... die Anfertigung von Lichtbildern im Umherziehen betreffend...". Zur Situation der Wanderfotografen in Ostfriesland, pp. 156-191.
2. See Uwe Steen, Carl Neupert (1803-1857). Schauspieler, Kunstblumenfabrikant und Daguerreotypist, in Nordelbingen. Beiträge zur Kunst- und Kulturgeschichte Schleswig-Holsteins, vol. 71 (2002), pp. 65-73.
3. See Heinz Gebhardt, *Königlich bayerische Photographie 1838-1918*, München: Laterna Magica, 1978
4. See Timm, p. 170.
5. See Hans J. Scheurer, *Zur Kultur- und Mediengeschichte der Fotografie. Die Industrialisierung des Blicks*, Köln: DuMont Buchverlag, 1987.
6. Jan S. Kunstreich, *Frühe Photographen in Schleswig-Holstein, Heide (Holstein) 1985*, pp. 14/15
7. Wilhelm Weimar, *Die Daguerreotypie in Hamburg 1839-1860. Ein Beitrag zur Geschichte der Photographie*, Hamburg 1915 (1. Beiheft zum Jahrbuch der Hamburgischen Wissenschaftlichen Anstalten XXXII. 1914), p. 35
8. See Gebhardt, p. 75
9. See Timm, p. 164.
10. See Uwe Steen, Christian Jørgensen - der erste Dorfdaguerreotypist in Schleswig-Holstein, in Nordelbingen. Beiträge zur Kunst- und Kulturgeschichte Schleswig-Holsteins, vol. 59 (1990), pp. 231-243.
11. See Uwe Steen, *Die frühe Photographie in Schleswig-Holstein*, in Schleswig-Holsteinisches Landesmuseum, Schloß Gottorf, Schleswig, *Die Photographische Sammlung. Eine Auswahl zum 150jährigen Bestehen der Photographie*, Ausst.Kat. , Schloß Gottorf 1989, p. 22
12. See Gebhardt, p. 59
13. See Fritz Kempe, *Daguerreotypie in Deutschland. vom Charme der frühen Fotografie, Seebruck am Chiemsee: Heering-Verlag, 1979, p. 170*



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