



Lincoln Lore

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PHOTOGRAPHING LINCOLN

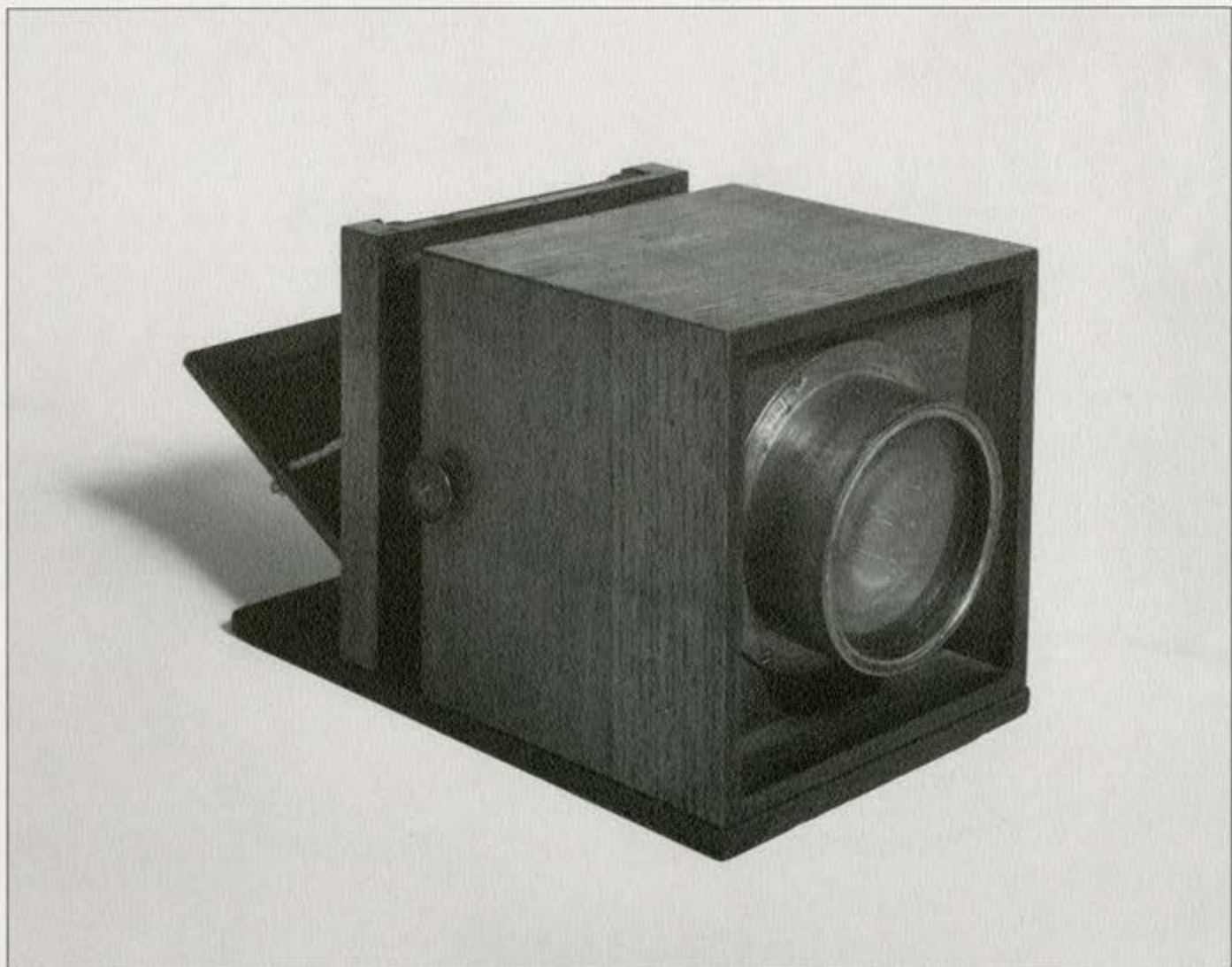
(PART II)

by Sarah McNair Vosmeier

While Lincoln was relaxing after having just posed for his first photograph, Shepherd began finishing the daguerreotype by removing the exposed plate from the camera. Light had been reflected off of Lincoln's figure, through the camera lens, and onto the plate, breaking down the silver halide on the plate to form photolytic silver. Although this changed the plate chemically, the change was not visible until Shepherd "mercurialized" the plate (developed it). To do so, he put the plate face down in a "mercury

bath." They could be curious-looking contraptions: one manufacturer made them in the form of a hollow inverted pyramid with a thermometer on the side. This container was then balanced precariously over a small flame to keep the mercury at about 165°. When Shepherd set his plate over the heated mercury, the fumes allowed the photolytic silver to change into silver crystals that are visible to the human eye.

Mercury fumes, like the fumes from the iodine and quickstuff,



*From the International Museum of Photography
at George Eastman House*

FIGURE 1. Plumbe daguerreotype camera. The camera Shepherd used to photograph Lincoln in 1846 would have looked something like this.

are toxic, and several photography books warned that mercury fumes were especially dangerous. For example, L. L. Hill warned in 1856 that they were "loaded with rheumatism, sciatica, lumbago, toothache, neuralgia and decrepitude."⁵ Incidentally, hat-makers also used mercury in their trade, and the phrase "mad hatter" comes from the effect of the fumes. There were other dangers to photography as well. The potassium cyanide used to galvanize plates is poisonous, for example. Chemists classify it as "super toxic" because just a taste can be fatal.

Taking the plate out of the mercury bath, Shepherd needed to fix it so that it would no longer react to light. To do so, he rinsed it in "hyposulphite of soda." (Modern photographers still use it, referring to it as "hypo".) The hyposulphite of soda removed any silver halide which had not been converted to photolytic silver. Next Shepherd rinsed the plate in a solution of gold chloride, which improved the picture by making the dark areas darker and the light areas lighter. Finally, he rinsed the plate in distilled water and placed it over a lamp to dry.⁶

The image was finished at this point, but Shepherd probably made Lincoln wait a little longer before he could look at it. If Lincoln betrayed any impatience, Shepherd would have explained that the image was very delicate, and if Lincoln so much as touched the face of it he might brush away the picture. To protect the image, Shepherd put a glass cover over it, and then put the whole assembly into a hinged box with a padded lining. Thus protected, the image would be reasonably safe even from three-year-old "Bob's" little fingers at home.

When Lincoln finally got to look at his picture, he must have had the sensation of looking into a mirror. Daguerreotype images are

reversed left to right as mirror images are, but Lincoln probably did not notice that at first. Because the daguerreotypes are made on highly polished metal, it is very difficult to avoid seeing your own reflection in the edges of the image. Thus, looking at his daguerreotype for the first time, Lincoln would have seen himself twice: the photographic image in the center of the picture, and a reflection of himself on the edges of the picture.

If Shepherd was a good salesman, he would have handed Lincoln a magnifying glass to use on his new picture: Lincoln's contemporaries seemed to be most impressed with daguerreotypes' amazing detail. As Shepherd's advertisement for a "daguerreotype miniature gallery" suggests, people compared daguerreotypes to painted miniatures, the art form they were replacing. A good artist could make a miniature look very realistic, but with enough magnification the brush strokes are visible. In comparison, there seemed to be no end to the detail in daguerreotypes—the stronger the magnifying glass, the more details it revealed.

The speed and extent to which photographs replaced miniatures are revealed by a letter John G. Nicolay wrote in 1860 (fourteen years later). Having recently become Lincoln's private secretary, he had plenty of opportunities to observe the presidential candidate and the people who called on him. One of those callers was an artist named John Henry Brown, who had come to make a miniature of Lincoln. Writing to Therenia Bates (whom he would later marry), Nicolay asked

Did you ever see a real, pretty miniature? I do not mean either an ambrotype, daguerreotype or photograph, but a regular miniature painted on ivory. Well, a Philadelphia artist (Brown,



From the Lincoln Museum

FIGURE 2. Miniature by Daniel Huntington, egg tempura on ivory, about 1864. In the 1840s people thought of photographs as inexpensive miniatures. By 1864, though, photographs had made miniatures virtually obsolete. Ironically, this miniature is actually a copy of a photograph.

his name is) had just been painting one of Mr Lincoln, which is both very pretty and very truthful—decidedly the best picture of him that I have seen. It is about twice as large as a common quarter size daguerreotype or ambrotype, but so well executed that when magnified to life size one cannot discover any defects or brush marks on it at all. I wish you could see it. It gives one something of an idea of what a painter I mean a real artist—can do. It has been painted for Judge [John M.] Read of Philadelphia, who has become so disgusted with the horrible caricatures of Mr Lincoln which he had seen, that he went to the expense of sending this artist all the way out here to paint him this picture, and which will probably cost him some \$300. The price of the painting alone being \$175. I had a long talk with the artist today. He says the impression prevails East that Mr Lincoln is very ugly—an impression which the published pictures of him of course all confirm. Read however had an idea that it could hardly be so—but was bound to have a good looking picture, and therefore instructed the artist to make it good looking whether the original would justify it or not. The artist says he came out with a good deal of foreboding that he would have difficulty in making a picture under these conditions. He says he was very happy when on seeing him he found that he was not at all such a man as had been represented, and that instead of making a picture he would only have to make a portrait to satisfy Judge Read. He will go back home as agreeably disappointed in Mr Lincoln's manners, refinement, and general characteristics, as in his personal appearance.⁷

Whereas in 1846 miniatures were the reference point for photographs, by 1860 Nicolay was using photographs as a reference point for miniatures.

In Lincoln's case, if he used a magnifying glass in 1846 to compare his first photograph with a miniature, he must have marveled at the technical perfection that allowed him to distinguish between the white and the quick of the fingernails of his photograph. He was probably reminded of the disadvantages of photography too though: as he examined the picture with Shepherd, he must have noticed the ghostly image his left thumb had made when he twitched during the exposure.

Perhaps when his son Robert was preparing for his first photograph, twelve years later, Lincoln got out his daguerreotype to point out the blurred thumb as a warning to be still. By the time Robert had his first picture taken, ambrotypes (photographs on glass) were replacing daguerreotypes in many areas of the country. Professional photographers might have complained that the new ambrotypes did not have the same tonal qualities of the old daguerreotypes, but ordinary people like the Lincolns were not so discriminating. The distinction in total quality is slight, and ambrotypes have two other important advantages. First, they do not have distracting reflections as daguerreotypes do: some photographers even advertised ambrotypes as "daguerreotypes without reflections." Also, they were much cheaper.

By 1858, Lincoln had already posed for more than one ambrotype, and so he probably could have explained the process to Robert—if his fifteen-year-old son was willing to listen. Perhaps Lincoln piqued Robert's interest by

asking him what ambrotypists, actors, soldiers and surgeons all had in common.

The answer is that they all might use "gun cotton," (nitrocellulose) in their work. Used dry it was explosive, but when it was dissolved in an alcohol/ether mixture it formed a sticky liquid which had a variety of applications. Actors used it, as spirit gum, for attaching false beards; surgeons used it, as collodion, instead of gauze and tape to protect wounds and hold them together; and by the mid-1850s, photographers used it (also as collodion) to prepare glass plates.⁸

Ambrotypes were made by the wet-plate process, which had been perfected by Frederick Scott Archer in 1851. To make an ambrotype, a photographer started with a glass plate in one of the standard daguerreotype sizes. Robert's ambrotype was the size of a sixth-plate daguerreotype (about 2 3/4 by 3 1/4 inches). After cleaning the glass plate thoroughly, the photographer poured some collodion on it, carefully watching until it had dried just to the point of tackiness. Whereas Shepherd had exposed his plate to chemical fumes, Robert's photographer put iodine and/or bromine into the collodion solution. The next step was to immerse the sticky plate into a solution of silver nitrate (which might include a form of iodine as well). Thus ambrotypists, like daguerreotypists, combined iodine and/or bromine with silver to form light sensitive silver halides.

(To be continued)

FOOTNOTES

5. Quoted by Beaumont Newhall, *The Daguerreotype in America*, 3rd revised ed. (New York: Dover, 1976), p. 126.

6. Newhall gives an extended description of the "American Process" for making daguerreotypes (pp. 115-136). He includes illustrations of some of the equipment and prices for most of it.

7. John G. Nicolay to Therenia Bates, typescript copy by Helen Nicolay, in the Lincoln Museum. See Harold Holzer, Gabor S. Boritt, and Mark E. Neely, Jr., *The Lincoln Image: Abraham Lincoln and the Popular Print* (New York: Charles Scribner's Sons, 1984), pp. 57-66.

8. Although Lincoln could have known in 1858 that gun cotton was an explosive, it was not actually used by soldiers until late in the war. Since its invention in 1846, scientists and entrepreneurs had been trying to develop it for use as a reliable explosive: its main advantage over black powder (which it later replaced) was that it was smokeless. Nitrocellulose is still used in gunpowder today.



From the Lincoln Museum

FIGURE 3. Carte-de-visite by Anthony Berger, February 9, 1864, Washington, D.C. Huntington based his miniature on this photograph. It is also the basis of the engraving on the five dollar bills, and the masthead of the *Lincoln Lore*.

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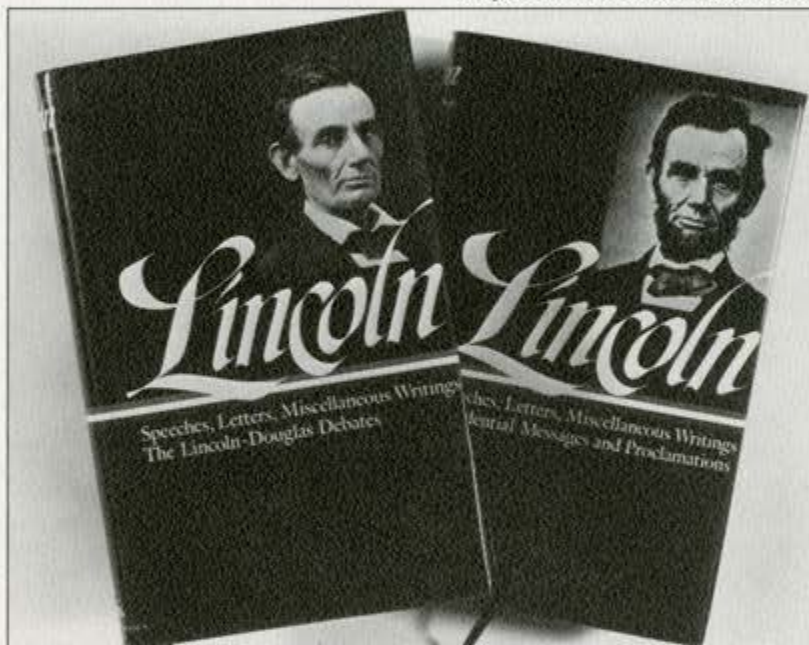
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