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THE DAGUERREOTYPE

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I READ with interest the article on daguerreotypes in the August number of the AMERICAN PHOTOGRAPHY translated from the German of Prof. Adolph Miethe. As a former daguerreotypist I can fully appreciate the author’s remarks on the beauty of that early product of the lens and the pleasure that may be found in the present-day use of it which he suggests. The article, however, betrays some strange unfamiliarity with the details of the process by which these charming pictures were produced.

The daguerreotype had its birth in 1839, ten years after the advent of the present writer who, in 1846, at the age of 17, was initiated into the “art and mystery” of this marvelous process and practiced it for two years. This experience, with memory refreshed by some recent reading, has indelibly impressed upon my mind the details of the process. Briefly, this consists in depositing upon a highly polished silver plate a chemical vapor, which renders the plate sensitive to light, and then exposing the plate in the camera. The invisible image is then developed by exposure to the vapor of mercury which is deposited in microscopic globules upon the parts acted upon by the light, forming a white coating which constitutes the “lights.” The chemical coating is then washed off by hypo, leaving the unaffected parts of the plate clear, to form the “darks.”

Intermediate tones are produced as in the modern negative. In the resulting picture the parts of the subject are reversed as in a mirror or in a negative viewed from the film side. I do not remember to have heard any one notice this reversal.

In describing the plates used, which the professor points out cannot now be purchased, he states that in the use of these and other plates it is not desirable to deposit a silver coating by the battery because of its coarse character. On the contrary, this was a general practice and the very finest deposit was obtained by using a slow working battery. This was often necessary to cover spots where the polishing process had worn through the silver to the copper or when the scouring of a plate that had been used might have left a little of the gold coating of the previous picture. Some operators held that every plate should thus be galvanized, as they believed that the pure silver thus obtained was more sensitive than that on the manufactured plate. It has been suggested that a substitute for the plates not now obtainable may be found in the copper plates prepared for engravers, the silver to be deposited by the battery. The professor suggests glass as a basis. In order to make this satisfactory the corners and edges should be rounded and smoothed, to prevent cutting the buff in the necessary final polishing, to which the article makes no reference. In following the directions given by the author for the preparation and polishing of the glass this would apparently produce so thin a coating that a sufficient
polish could scarcely be given without wearing the silver down to its support. This might be avoided by a reinforcement of the silver by the battery.

Iodine is mentioned as the sensitizing agent. This was used by the inventor of the process and continued to be essential. But it was soon discovered that the action was greatly accelerated by the addition of bromine and sometimes chlorine, so that the exposure was reduced from hours or minutes to a few seconds, dependent, of course, upon the conditions which control in present-day photography. My own exposures were usually 30 seconds, with bright southern light through a large window and blue tissue paper, with aperture f: 8 as nearly as I can remember. The shortest time I recall was 15 seconds, which appeared to be an overexposure. Writers have stated that the exposure could be reduced to one second. This they termed “instantaneous.”

The proposition by the professor to make a daguerreotype by printing from a modern negative may, I think, be taken as a suggestion rather than the result of experience. The thin chemical coating on the plate is so delicate that the touch of a hair would mar it. Putting it face to face with a glass negative, with the expectation of getting it off uninjured, would usually mean disaster. But the plan would otherwise fail in a more vital respect.

It will be recalled that my brief statement of the process pointed out that where the light has acted on the plate the final result is light. This is also true of the modern print from a negative, in which the light parts of the subject are the more dense. This would also be true of the print on the daguerreotype plate if the image were at once visible. But the process of mercury development reverses this and the places upon which the light would act, through the transparent spots of the negative, would become “lights,” while the others, which should be white, would be the “darks,” represented by the polished surface of the plate. Certainly this reversal must have been observed by any one trying the experiment. [Dr. Miethe’s article states that the print must be made from a positive, not a negative.—Ed.]

The statement that the pictures are very beautiful is certainly true, but that they are sufficiently so and are absolutely permanent, without the deposit of gold, is not in accordance with my observation. Many old pictures not gilded are in a faded condition and, when not perceptibly faded, their beauty bears no comparison with that of those covered with a transparent film of gold, which gives them a brilliancy not otherwise obtainable and protects them from injurious atmospheric effects. My own pictures so protected are as brilliant as when made.

The early daguerreotype operators often sought markets in many places through the country in temporary studios. From one of these I received my instructions in the process. This gentleman had also a place in Philadelphia which he named the “Sunshine Gallery,” with the motto “Secure the Shadow ere the Substance Fade.” The old daguerreotypists have almost all disappeared. I have heard of two or three remaining, but personally know of only that veteran handler of the lens, F. Gutekunst of Philadelphia, whose age, I believe, exceeds my own, and who is still busy turning out fine photographic work. My own use of the camera was discontinued until about twenty-five years ago, when I joined the amateur workers on dryplates.

Once while working with the silver plates I met with an amusing incident at which we may now smile. Wishing to read something on the photographic art I called at a leading book store in Philadelphia, where I found the proprietor on a stool outside the counter. Accosting him I inquired if he had any work on photography. He stared at me and I had to repeat the question. He then said, “No, we have works on phrenology, but none on footography.” So I left him on his stool.
EDITOR'S NOTES:
The article referenced in the first paragraph is Adolf Miethe, “A Modern Application of the Daguerreotype,” *American Photography* (Boston) 9:8 (August 1915): 446–54. (Forthcoming to this archive.)

Anderson’s text is perhaps the last reminiscence by someone who worked during the daguerreian era.


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