

## My Story    **A Life in Photography**

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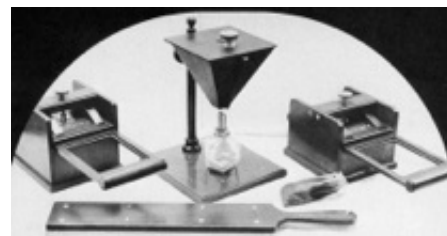
### **"How I made Daguerreotypes, 1972"** by Walter A. Johnson



To be honest, I needed to sit and think about answering the question of why did I want to make a Daguerreotype? I had just started to teach the History of Photography class, at the Ohio State University, [502, an overview of the History of Photography], and questioned just how the 19th century photo-process were done. It helped, that I had just purchased a American made Daguerreotype camera, [about 1840], and thought how grand it would be to use it to make Modern Daguerreotypes. I owned several early photo-books with information, and details of the process. So, after reading everything that I could find on the making of Daguerreotypes, I started to assemble



what I thought would be required to make a Daguerreotype. A fellow photo-collector, Jim Ambrecht, told me that he intended to build a set of look-alike Dag tools for himself and Marvin Kreisman; I quickly added my name to his list.



I received my set of Ambrecht Dag-tools, Spring of 1970, during the OCCS Sale & Trade-fair event held each May. I had tried to make an image before then, but with poor results; the images were far from the quality that I had hoped for, but now with my new set of Dag-tools, I was set to go.



There is one more very important element that made it all worth while, that was when Donald Lokuta came to study at OSU. He and I formed a bonding friendship in the study of the History of Photography, the Daguerreotype process, the Wet-plate, Collodion process, and many other early photo-processes. I can say now, that with-out his help, I may not have continued to work with the number of historic photo processes as I have, I owe him much for his continued support, even to this day.



Donald is still a very active photographer, please check out his web-page; [www.Donaldlokuta.com](http://www.Donaldlokuta.com); and also the book, "In Plato's Cave", Photographs by Donald Lokuta, it is outstanding.

OK, now you have some idea of how & why I started in my study of historic photo-processes, and believe me it didn't come easy to me, just because I had my new tools. My results were, un-controllable, and forced me to re-start several times, before consistent results became normal. One of my early Daguerreotypes was of my daughter, "Christina", that image is now in the Smithsonian Institution National Collection, Washington, D.C.



By this time, I had introduced to my Photo-History class, the Professor Simon Alexander Wooley, local Daguerreotypist, to demonstrate the Daguerreotype in the classroom, and before long the many requests was made by several students that I teach a class to make images with 19th century photo-processes. The full story of my 1973 Summer Photo-processes class, and the adventures of S.A. Wooley, are in the archives of;

[www.walterisphotography.com](http://www.walterisphotography.com).

OK, let's start with how back in 1972, I worked to make a Daguerreotype image. There are several issues that must be addressed before you start on your own to work with any of the historic photo-processes. First; know that all the chemistry is dangerous; it can, and will kill you if you do not respect them, and work with-in given cautions. The three major chemicals required for making Daguerreotypes are; Iodine; Bromide; and Mercury. If that hasn't stopped you; continue reading. There are six major elements that you must master to make a Daguerreotype; in this order.



First; the polishing of the surface of the silver plate.  
Second; the sensitizing of the plate to render it, "Light sensitive", [with the Iodine & Bromide].  
Third; The exposure of the plate in a suitable camera.  
Fourth; The processing of the plate to reveal the image, with Mercury, or other means.  
Fifth; to fix, or make permanent the exposed and processed image. Then wash.  
Sixth: Cover the image with glass to protect the finished image.



As you can see in my first photo; the Brasso was used to clean the very dirty stuff from the surface of the plate. Then followed by a common Silver polish to remove any tarnish, please do not rum hard on the surface of the plate, as you start, the marks can be hard to remove when you go to the final polishing. The best polish I was told was the "Black" polish; when the reflections from the polished plate were totally black, with no dust marks or scratches to be seen. To come to that point of polishing, I used a 1/3rd horsepower motor mounted with large buffing cotton pads for the final mirror-like polish.



The high polish is the measure of the quality of the image possible, if you can not come to a mirror-like finish after polishing, your Dag image will appear flat, or low in contrast. So, work hard on having a good polish for your plate.



Ok, moving on, we are ready to sensitize the plate; my set of Dag-tools included the two boxes as shown in this photo. The shorter box, is for the Iodine; and the second



taller box for the Bromide. I want to suggest now that you refer to the book; "Coming into Focus" edited by John Barnier, or "The Keepers of Light" by William Crawford; both volumes are very informative and will help to provide you the base information required as you continue to pursue to master historic photo-processes. As you expose the surface of the silver plate to the Iodine; it will change color, [please check out page 7, in the book; "Coming into Focus"], the ideal color is a Yellow tint that only experience can provide. The first exposure is to the Iodine, and you may want to check the color change about every 30secs, and also turn the plate from end-to-end as you check. This will help to assure a more even exposure to the plate.

After the exposure to the Iodine, the plate is the placed into the larger box with the Bromide; a shorter exposure here, about one third of the Iodine exposure, and then back to the Iodine box for one last shorter exposure; about 30secs. The last transfer from the Iodine box must be done under safe-light conditions, or total darkness. The sensitized plate is now sensitive to light, and now must be protected.

I load my sensitized plates into common 4X5 film pack adapters, [found on eBay everyday at reasonable cost], a filler pad is used to fill the void after I have placed the sensitized plate face down into the holder. Once closed the springs at the back hold both the plate and filler firmly in place during the exposure in the camera.

Now comes the hard part; the selection of the subject? I have found that my inspiration often needs to be encouraged, and requires me to search deep with-in my instinctive feelings to come to my point of inspiration. I find that my entire body must become engaged if I am to have any hope of success.





There is no special camera required to make Daguerreotypes, you need only have a similar size format to match the size of the sensitized plate; in my case, a 4X5 view camera. Most any of the modern Press/View cameras will allow the use of the film pack adapter. You must have a "Time" setting to expose the Daguerreotype plate, the exposure time is measured in the number of seconds, not as with modern cameras and film; fractions of seconds. I don't take chances; I all ways set my shutter on the "T" setting, before I do anything else, it's just to easy to forget that.

The Daguerreotype is only sensitive to "Blue light", or to be more exact; a Daylight light balance; it can not see the warm colors of the spectrum. When inside, I use a blue-photoflood lamp; very close to my subject to insure a good exposure. You can see the lamp reflector at the right, and it's only about five feet from her.

I always pose my subjects in a way that it is easy for them to stay motionless for the time required for the exposure. Cute, and/or quaint posing doesn't work here.





Now that the plate has been exposed, we return to the workspace and fire up the Mercury pot. I have a common alcohol lamp to heat the mercury; while there is a thermometer mounted on the face of my Mercury pot, I don't use it. I instead, touch the top sides of the pot, and as it warms to the point that I feel it ready, [I would joke with my class in saying that the Mercury pot was like a woman, in that you would want her good-and-warm; not hot, that comes later]. I now remove the exposed plate from the film pack holder, [open it, remove the filler pad, and then turn it up-side-down, and the plate falls into my hand], and slip it into the slots that hold it in place during processing.



If you have done all the previous actions correctly, the image will begin to show itself in about two to four minutes. There have been a few times, when after five minutes had passed and I thought that I had missed; I would shut down the Mercury pot and leave the plate inside in the hope that with more time would still give me an image. Under normal conditions, you would be able to check the image as it is forming in the Mercury pot; I would open the lid of the pot just to be able to see by reflected light from the darkroom safelights if there is an image.



Now to fix the image to make it permanent, as you see, I used two photo trays of different colors; no room for mistakes now; the red tray is the fixer solution, to stabilize, and fix the image. The second tray is the water used to wash the image free of the chemistry; and final bath of water with just a touch of Photo-flo to help control water marks when drying. I had used a hair-drier at low temperature, but soon stopped that because of stains made as the excess water was blown away.



I found that high-intensity lamp would allow me to inspect the image with ease, but I'm not done yet. The image must be protected, and placed under glass, or framed. Just to make that first, but most important, effort to protect the image, I would quickly mount it under glass for



safe keeping. I would have several 4X5 mats cut and ready, 4X5 cover glass, and the sealing tape ready with every effort in making a Dag. It's not a big job to put a mat between the cover glass and the Dag; then with great care, use the sealing tape to cover the edges all the way around the image. I would never pass around a naked Dag plate; just to damn easy for it to be dropped, or a unintended finger mark to damage the image; the cover glass was my finishing touch.



So, there you have it, the way that I had made Modern Daguerreotypes in 1972, I want to thank Donald Lokuta for shooting these photographs of me working, as you can see, we had a ton of fun doing what was an experience of a life time.

