

# NEWSGRAM

News in brief from the Conservation Center

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INSTITUTE of FINE ARTS  
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## Cooking Up Photos: Egg Whites in the Re-creation of a 19<sup>th</sup>-Century Process

*Making Albumen Photographs at Chicago Albumen Works, Housatonic, MA*

On the first weekend in December, the staff of the private photograph conservation firm The Better Image® (TBI) traveled to a snowy Housatonic, Massachusetts, to participate in a workshop creating albumen photographs at the Chicago Albumen Works (CAW). Joining the TBI staff were Nora Kennedy, Sherman Fairchild Conservator of Photographs at The Metropolitan Museum of Art, and Conservation Center graduate student, Maggie Wessling. Principals Doug and Toddy Munson and their staff led the group in a three-day workshop that covered all of the steps in making albumen prints, from separating egg whites from the yolks, to coating paper, hardening, sensitizing and printing, to final mounting and presentation.

Albumen printing was the predominant photographic printing process from the 1850s to the 1890s. If you have ever seen a photographic print from the Civil War, chances are it was an albumen print. Albumen prints are readily identified by their warm, purplish image color, and sometimes yellowed highlights. CAW provides many digital photographic services, but they also specialize in the re-creation of albumen prints and other 19<sup>th</sup>-century processes. It is a place where you get your hands dirty, and we participants were more than ready to have a go at this decidedly analog technique.

The workshop began with coating high-quality, white papers with the foundation of the albumen technique: egg whites. The protein in the egg white provides an excellent transparent binder layer for the image material, and has an attractive glossy finish when dried. After coating, the papers were hardened and made sensitive to light with silver nitrate, forming the reactive silver halide in the albumen binder. These silver halides are the foundation of many analog photographic processes. Albumen papers are unlike the gelatin silver papers we



*A snowy Saturday at the Chicago Albumen Works building*

remember printing in the darkroom—they are much less sensitive to light, so the participants worked happily away in a dimly lit room. We tried the delicate techniques of coating and sensitizing, and were all excited to begin printing once the papers had fully dried.

Albumen printing is known as a “printing-out process”, meaning as the paper is exposed to light in contact with a large format negative, the image is visibly formed. Using printing frames to keep everything in register, the participants placed the light sensitive albumen paper on top of specially prepared black-and-white negatives, and placed them in brightly lit light chambers to expose for 12 minutes to an hour in



*Doug Munson sensitizes a sheet of albumen-coated paper with silver nitrate*



Doug Munson demonstrates the use of a densitometer to check if negatives have sufficient density range for printing albumen photographs; From left: Amanda Maloney, Doug Munson, Allan Phoenix, Maggie Wessling

some cases. The progress of image formation was checked often by eager eyes as the images slowly began to print out. Images were chosen from a variety of sources: old film and glass negatives purchased from eBay, iPhone images transferred to negatives, and some paper negatives made in a previous workshop. CAW specializes in the conversion of digital images to film negatives, and they generously optimized images collected from the participants, and printed them onto black-and-white film. There were images of old trains from the Colorado Historical Society, vintage studio portraits, 2012 views from an Abu Dhabi hotel room, and an iPhone photo of Stonehenge, to name a few.

After exposing albumen papers, they must be processed in a series of baths. One very important bath is the toner, a solution of gold chloride. Doug Munson joked, "Careful with this one, it's worth its weight in gold!" The gold toning renders the albumen print significantly more stable, and additionally, it creates a lovely eggplant image color. Prints were also fixed and rinsed to remove residual chemistry, a step critical to their longevity. It turns out that a freshly printed albumen photograph looks quite different than that of an aged, yellowed albumen print. The rich purple-brown tones have incredible depth and detail, and the highlights are a creamy white. As conservators love to do, many experiments were tried in manipulating the process. Starch was added to the coating

to make the final finish matte, toning was tested with different concentrations and soaking times, all of which produced a variety of image colors and finishes.

The workshop was a great success, and staff at CAW had a hard time getting the participants to pack up at the end. They all walked away with stacks of albumen prints, swearing to make more when they got home. Albumen printing is one of many early photographic techniques, and when given the right directions, a home-friendly printing process. Move over Instagram, here comes the revival of albumen printing!

Thanks to the staff of CAW for their impeccable organization and warm welcome: Doug Munson, Toddy Munson, Ki Joo Kim, Emily W. Phoenix, and Allan Phoenix. Thanks also to TBI for conceiving and funding the workshop and for inviting some "outsiders" to participate: Peter Mustardo, Richard Stenman, Amanda Maloney, Michelle Kloehn, and Alison Rossiter. •

-Margaret Wessling

Maggie is a third-year photo conservation student



TBI staff (from left) Michele Kloehn, Alison Rossiter, and Richard Stenman, prepare to expose sensitized albumen paper to specially-prepared negatives



Participants process exposed albumen papers in various steps; From left: Doug Munson, Alison Rossiter, Amanda Maloney, Michele Kloehn, Maggie Wessling, and Richard Stenman



Doug Munson checks the color of an albumen print during the gold toning step

photo credit: Nora Kennedy, Maggie Wessling, historic albumen print from C.M. Fowler & Co. Salem, MA (Conservation Center Study Collection)