

SERCA

Southeast Regional Conservation Association

NEWSLETTER

Winter 2019 Volume 2, Number 3

2020 SERCA Annual Meeting : REGISTRATION NOW OPEN!!!!

WHAT: 2020 SERCA Annual Meeting

WHERE: North Carolina Museum of History, Raleigh, NC

WHEN: February 28 - March 1, 2020

WHO: Gwen Spicer, author of *Magnetic Mounting Systems for Museums & Cultural Institutions*

Register [HERE](#)

From the Desk of the Communications Coordinator

Rachel Penniman

You may have noticed some changes to our website and the online services SERCA has been offering in the past few years.

After many requests from the membership to have the option to pay by credit card, we set up a PayPal account. SERCA can now take credit card payments online for meeting and workshop registrations, member dues, and donations to our scholarship and development opportunity grant. Our treasurer appreciates fewer trips to the bank to deposit checks.

Registration for annual meetings and workshops are also completed online now. We are using GoogleDocs forms for registration as well as for membership forms. Our meetings and workshops have been



filling to capacity lately and online registration allows us to keep closer track of how many people have signed up. This gives the board a chance to do some behind-the-scenes magic to open up extra spaces when possible. For example, at the last annual meeting when the afternoon workshops filled, we created a waitlist and in the end, everyone on the waitlist was able to attend the workshops. Online forms also mean our membership coordinator no longer has to transcribe information from handwritten paper forms.

There are also some smaller changes to the website, like adding the names of current board members to the contact page and adding a new page with photos from past events. If you take photos at a SERCA event and would like to share them, please contact us.

What's in store for the future? We've gotten feedback from membership about updating the look of the SERCA website. Website redesign can be a big undertaking and we want to be sure to do it right. So it won't be a quick process but it's something we've been talking about. The website is the first place I update information about annual meeting news or new workshop announcements, so keep an eye on our homepage for SERCA updates (<http://sercaconservation.org/>).

SERCA 2019 ANNUAL MEETING RECAP, continued

Understanding Paper and Conductivity

Amparo Escolano

Immersion washing of paper is a common process in paper conservation but there are some factors, like pH or conductivity that should be taken into consideration to avoid potential risks of damaging the paper. The key to the effectiveness of paper cleaning may lie with *engineering the conductivity* of the solutions to the artifact being treated, and *controlling the conductivity* of the solution during treatment.



Salts naturally form on any paper surface, within paper interstices, and are added to the aqueous cleaning solutions paper conservators use. The concentration of salts in the water/paper interface is constantly changing during an aqueous treatment in different ways: first, with the addition of salts to the water; second, through the release of degradation products from the paper into the water; and lastly, when moving the paper to a new, fresh bath during the cleaning process. Salt concentration in water is directly related to conductivity. Conductivity is nothing more than the measure of the number of ions contained in a solution, and ions are present because of the natural dissociation of salts when added to water.

Traditional washing methods that do not take into account conductivity are often creating extreme hypertonic or hypotonic wash baths which can cause damage to paper. The initial, original conductivity of any paper should be measured and taken into consideration when preparing washing solutions for two reasons; first, fibers can dislodge, damaging the structure of the paper because of

excessive swelling from extreme hyper or hypotonic zones, and second, because the paper's conductivity should be at the same level at the beginning and end of treatment to retain the natural stability and surface characteristics of the paper.

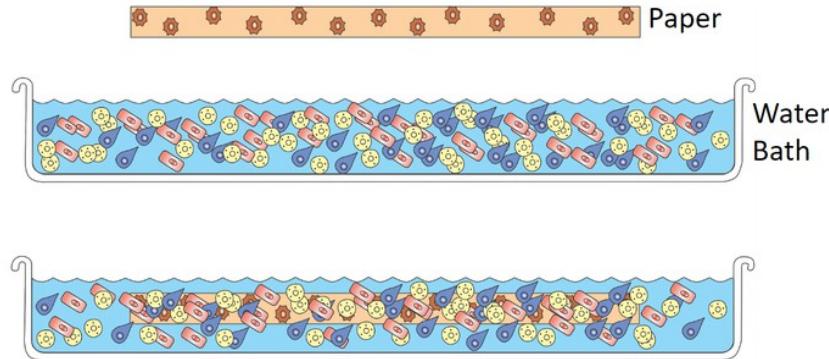
When a paper is immersed in a water-salt solution, both paper and solution will tend towards equilibrium, resulting in a movement of ions in one direction or the other. This exchange of ions will stop once both conductivities are equal. Therefore, monitoring when the conductivity of the solution stops changing during the bath indicates when the treatment with each solution has concluded. Once equilibrium is achieved, nothing else will happen with the paper. It can be moved to a new treatment solution or, at some point, the aqueous portion of the treatment can be considered completed.

During the cleaning stage, the paper is loaded with solutions of salts, and potentially chelators, designed to dislodge degradation products. All these additives get inside the paper through the immersion bath, raising its conductivity level. The rise in conductivity inside the paper leads to a decrease of the conductivity of the water. When both paper and water reach equilibrium, the work done by the solution is finished.

CONDUCTIVITY MOVEMENT CLEANING BATH

- Buffers
- Chelators
- Salts
- Salts
- Calcium Acetate
- Degradation products

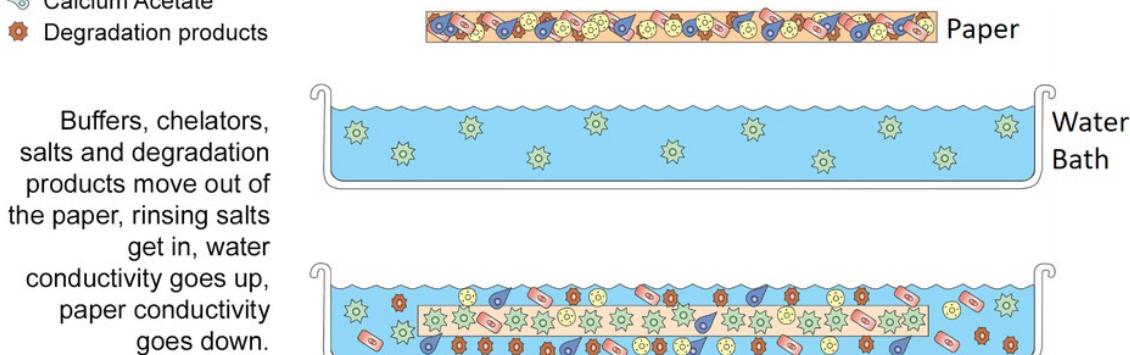
Buffers, chelators and salts get into the paper, water conductivity goes down, paper conductivity goes up.



To achieve removal of these substances (also called clearing or rinsing) immerse the paper into a bath with a lower conductivity than the original paper. All the dislodged degradation products, together with the salts and chelators added to the initial bath that are now inside the paper, will leave the paper, seeking equilibrium with the rinsing water. As conductivity is always moving towards equilibrium, the conductivity of the paper will go back down and the conductivity in the water will go up. Again, the bath is finished once the conductivity level stops changing.

- Buffers
- Chelators
- Salts
- Salts
- Calcium Acetate
- Degradation products

CONDUCTIVITY MOVEMENT RINSING BATH



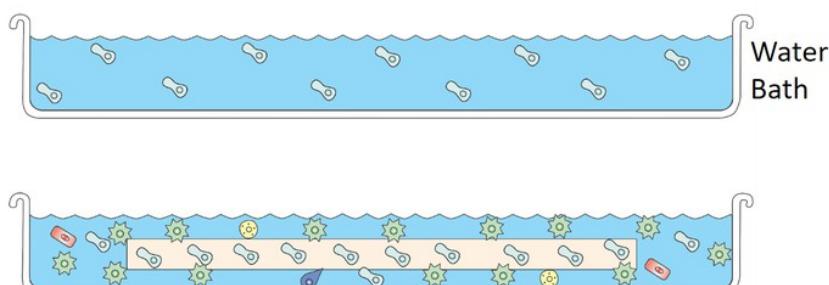
© Amparo Escolano

While the conductivity of the paper is low after rinsing, the conductivity of the last bath needs to be lower still. Soluble materials will keep moving out of the paper because of the tendency of the materials within the bath to reach equilibrium. However, the goal is not to leave the paper exhausted, but to return the paper back to its initial conductivity. A calcium-based solution with a lower conductivity will help to extract the clearing salts from the paper to reach the original conductivity level while replacing any remaining salts with calcium. This is because calcium has a higher affinity towards paper than other salts do. Calcium will remain in the paper as an alkaline reserve while the clearing salts move out into the solution. As the exchange between salts occurs, the water conductivity will slightly rise, and the paper conductivity will fall. Again, the bath will be finished when equilibrium is reached.

- Buffers
- Chelators
- Salts
- Salts
- Calcium Acetate
- Degradation products

CONDUCTIVITY MOVEMENT CALCIUM BATH

Salts and other remaining substances move out of the paper; Calcium salts get in, water conductivity goes slightly up and paper conductivity goes down.



© Amparo Escolano

Accurate measuring of the initial paper conductivity and designing aqueous treatment baths according to this conductivity will help to prevent structural damage to the paper. Monitoring

conductivity during a bath will help to determine when the action of a bath is completed and the next stage of treatment can begin. Incorporating conductivity procedures should become standard practice as it provides the paper conservator safer, effective, and easily controllable treatment methods.

New Emerging Conservation Professionals Network (ECPN) Liaison for Atlanta

Kaitlyn Wright is the Andrew W. Mellon Advanced Fellow in Objects Conservation at the Michael C. Carlos Museum and the Atlanta ECPN liaison. She recently graduated from the Buffalo State Art Conservation program and completed internships at the Metropolitan Museum of Art, the Athenian Agora Excavations, and the Institute for Aegean Prehistory - Study Center East Crete. Kaitlyn earned her BA in Art History from the George Washington University in Washington, D.C., completing pre-program internships at the Hirshhorn Museum and the Smithsonian Castle.



To contact Kaitlyn regarding upcoming ECPN activities, email her at atlanta.ecpn.liaison@gmail.com.

MEMBERSHIP EXPERIENCES & OPPORTUNITIES



5 Questions for Kate Singley

How did you choose conservation as a career?

I was lucky enough to have been exposed to conservation while working on a Roman excavation in the UK. This happened during high school, and even by then I knew I wanted to work in archaeology in some capacity. By the end of college, I had shifted from classical archaeology and arcane scholarship to chemistry and material culture. Despite this early focus, it still took me two rounds of applications to get into the Institute of Archaeology at the University of London. I finished in 1977. My thesis was on freeze-drying waterlogged organic artifacts.

How did you learn of SERCA?

I moved to Atlanta from Baltimore in 1997, when my husband took a job at the CDC. SERCA was in its early stages. Liz Schulte's husband, a lawyer, had just finished filing the 501(c)(3) application. Hilary Kaplan, then at Georgia Archives, was very keen on emergency preparedness and response. Both of them roped me into it.

What has been your most memorable treatment?

Early on the morning of September 11th, I was at the Little White House in order to remove a large tapa cloth panel for treatment. The

to FDR when he was Secretary of the Navy. I had no idea of what was going on until the security guard walked through and announced, "Well, a second plane has hit the World Trade Center. Guess we're at war now..." To be in the same space where FDR had heard of Pearl Harbor, or planned D-Day, or conducted phone calls with Churchill, was really eerie. It was the fastest de-installation on record. All I wanted was to get home. That tapa took me almost a year to clean, repair, and remount.

What has been your biggest regret professionally?

That I didn't publish enough. Research for publication is hard if you are in private work. It doesn't pay the bills or send you to conferences. And I had enough on my plate with a globe-trotting husband and two kids.

What tool or supply do you still guard with your life?

Three steel spatulas I bought from Tiranti in London in the 1970s. And two toothbrushes with boar's hair bristles and bone handles. They won't melt in acetone. All are now irreplaceable. Don't even THINK of "borrowing" them. I will hunt you down.

Spring 2019 Professional Development Opportunity Grant Experience

Johanna Rivera-Diaz



Thanks to a grant from the Southeast Regional Conservation Association, I was able to participate in an archaeological excavation from the Mesolithic period on the island of Bornholm, Denmark. I participated as an instructor for master's students in conservation from the Royal Danish Academy of Fine Arts, Schools of Architecture, Design and Conservation and I worked closely with archaeologists from the Bornholm Museum.

The Mesolithic site from the Ertebølle culture (ca 5300 BC – 3950 BC) in Grisby, Bornholm, is a coastal site located by the Baltic Sea. The Ertebølle, a hunter-fisher and gatherer culture, settled by the coast, which means that many of these sites in Southern Scandinavia, Northern Germany and even part of the site in Grisby, are now underwater. The site where I worked in Grisby, has provided rich finds of organic materials, which show a coastal adaptation with a focus on marine resources, especially fish and seal. In addition to bones, materials such as ceramics, lithic, coal, flints, fishhooks and harpoons have also been found.

During the 2019 season, students excavated a variety of ceramic sherds and flints, as well as seal bones, fish vertebrae, and even deer (a species that was thought to be extinct by that time). We practiced a variety of block-lifting techniques with the students to lift the very fragile (low fired) ceramics and bones. Some of the bones were very crumbly due to being subjected to processes of flooding and drying, and interference from nearby tree roots. Technically, students learned about consolidants used to lift delicate bones, but they also learned to communicate with archaeologists about materials used on bones so not to disrupt any future analysis.

The most interesting artifacts excavated were decorated ceramics. The Ertebølle ceramics are characterized for having a round shape, with a flanged, outward rim. The rim was normally decorated with bands of fingertip impressions. The bottom of the ceramic was typically formed into a point that supported the pot when placed in a fire. The students lifted several of these ceramics using plaster bandages and wooden skewers for support. Different materials and consolidants were needed during this endeavor and we had to adapt the use of materials to different weather conditions such as high humidity, rain, wind and cold while excavating. In addition, we had gravel below the cultural layer we were excavating, which made blocklifting even more challenging.

Once lifted I would take all the objects and bones to the field lab, sort them out, do a basic cleaning and pack them for transport. Even though we were on a coastal site, luckily, the material was not waterlogged, which made my job much easier. The majority of the ceramics and other materials were transported back to the school of conservation in Copenhagen for the students to excavate out of the block lifts, clean them and conserve them. Once conserved, all the materials will return to the Bornholm Museum. The bones however, were transported to the department of Quaternary Collections at the National Museum of Natural History in Copenhagen. This department functions as a permanent repository for all Danish archaeological fauna.

Working with students is something that I have always enjoyed, especially with those that have never been in the field and need the extra push to lose the fear of handling fragile materials. It was also great to work with colleagues from different backgrounds (archaeologists, biologists, zooarchaeologists) and even conservators from other labs and museums, and exchange ideas, tips and experiences.



Ertebølle ceramic fragment with fingertip decoration on its rim.



Animal bone with plant roots. Tree and plants had grown on the site damaging a lot of the bones and artifacts.



Block lifts of ceramics and bones were taken to the lab to be packed and stored for transport.

Funding Opportunities for Members

Professional Development Grant:

SERCA announces a winter/spring professional development opportunity grant for SERCA members. Would you like to attend a workshop or conduct research which might also benefit your SERCA colleagues and the conservation community, but lack adequate funds to do so? SERCA is offering up to \$500 to support a worthy endeavor in the first half of 2020. Please note that this grant is not applicable to the SERCA annual education program.

To apply: by **January 15th, 2020**, please send a brief letter of intent, explaining the intended outcomes of your project, and your need for financial assistance. Please also include a copy of your resume. Send these materials via e-mail to Julie Newton jnewt01@emory.edu with the subject line "SERCA Opportunity Grant."

The SERCA scholarship committee and board of directors will review applications and announce a recipient before February 1, 2020. The grant recipient will be encouraged to contribute a brief blog post about their grant experience for inclusion in the SERCA newsletter.

Leonora Weaver Scholarship:

Leonora Weaver (1957-2014) was an Atlanta-based conservator in private practice; a long-term member of SERCA; and a mentor to many students and emerging conservators across the southeast and beyond. In honor of Leonora's commitment to education, SERCA is dedicated to the maintenance of the Leonora Weaver Scholarship, which will cover registration fees and provide a small stipend for travel to SERCA's annual educational programs. To apply for a Leonora Weaver Scholarship, please send a resume and brief (one page) statement of how the topic of this year's program would benefit your long-term educational and career goals.

Please send this via e-mail to SERCA Education Chair, Julie Newton jnewt01@emory.edu.

Application deadline for the 2020 award cycle is **January 15th, 2020**.

To help maintain the Leonora Weaver Scholarship fund, please donate using the PayPal button on the [Funding Opportunities page](#) or send a check payable to SERCA for the desired amount to: Brittany Dolph Dinneen, SERCA Treasurer- Michael C. Carlos Museum; Emory University; 571 S Kilgo Circle Atlanta, GA 30322

SERCA Membership

Renewing your membership is even easier without having to worry about mailing in those pesky checks!! You will also be able to register and pay for workshops online. Please be sure to submit **BOTH** the registration form *and* the payment. If you haven't already renewed, please do so today. And please spread the word to your colleagues!

Visit our website for more details: <https://sercaconservation.org/membership/>

SERCA Seeking Nominations for 2020 Board Members

The SERCA board positions serve for two-year terms. The positions rotate out on alternating years. This year the following positions will be up for election at the business meeting on February 29, 2020, during our annual meeting in Raleigh, NC. If you are interested in running for a position or nominating someone, you do not need to be at the annual meeting. Please submit your/their name and a short bio

to SERCA President Corey Riley (corey.riley@ncdcr.gov) to be considered for one of the following roles. Nominations will be confirmed with the individual.

1. President
2. Vice President
3. Member at Large: Scholarship Coordinator
4. Member at Large 1
5. Member at Large 2

FIND A CONSERVATOR

If you would like to be included on the *Find a Conservator* page of the SERCA website, please contact: Rachel Penniman, Member-at-large/Website Guru rachel.penniman@duke.edu

[**SERCA Find A Conservator**](#)

Newsletter Submissions

Working on an interesting project? Have an internship or job opening to share? Let us know what's going on in your studio! Items for inclusion in the newsletter should be directed to both Newsletter Co-Editors:

Ephranette Brown
ephranette.brown@emory.edu

Tracey Johnson
tracey.johnson@usg.edu

SERCA's newsletter is published three times a year in April, August, and December. Please note that articles should be sent at least two weeks prior to publication and should not exceed 750 words. Also, there should be no more than 4 accompanying images in jpeg format. The editors reserve the right to edit in order to fit available space.

Next Issue: April 2019

Deadline for Submissions: March 15, 2019



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SERCA Listserv: serca-l@listserv.cc.emory.edu

 SeRegionConservationAssoc@...  sercaconservation.org/

