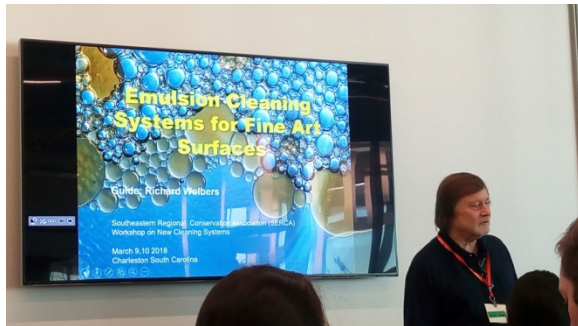


All About Emulsions with Richard Wolbers

<http://sflac.net/remedial-conservation/all-about-emulsions/>



Emulsions? Yes, please!

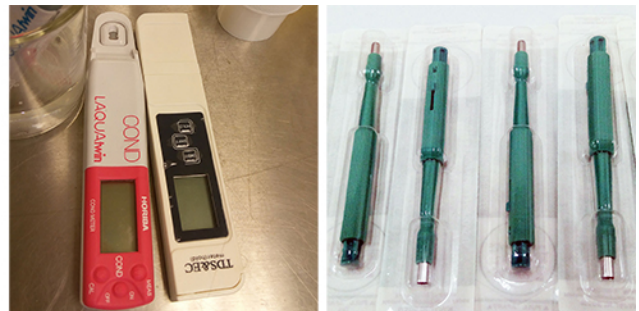


Last week, I had the chance to attend the SERCA (South East Regional Conservation Association) workshop titled "Emulsion Cleaning Systems for Fine Art Surfaces", instructed by Richard Wolbers.

a multitude of other things.

But the best part of the workshop was the hands on practice in the lab: Preparing these cleaning solutions, gelling them and finally emulsifying such gels with a solvent, was a great learning experience. And on top of all this, we experimented with the application of these gels in real situations. Wow!

Preparing solutions at a definite conductivity and pH levels, adding when necessary chelating agents, gelling and emulsifying them afterwards, and applying them on a certain surface to see, in a few minutes, how they acted on a real sample, was enough to



Preparing gels and emulsions. Tools: pH meters, Total Dissolved Solids meters, Electrical conductivity meters, Biopsy punches...

Gels, emulsions... these are the things that allow us to engineer a formula that will help us solve our cleaning problems. Do you know how?

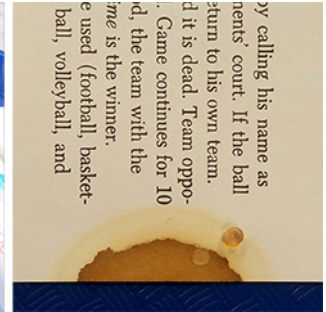
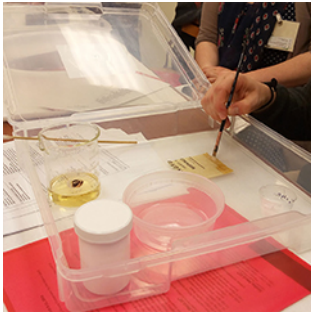
During the workshop we learned all about emulsions, emulsification theory, types of emulsions, emulsification agents, natural and synthetic hydrocolloids, xanthan gum and permulen, Pickering emulsions, miscibility between solvents, along with

convince all of us, the attendees, of their efficacy and practicality of use. I have no doubt that this week, every participant in the workshop, is ordering new products for their arsenal of goodies that help us conservators in our day to day workflow. These "new" gels and emulsions are, not only simple to prepare but also easy to use, environmentally (and human) friendly, effortless to rinse and highly effective.

The three day course was short but intense, and at the end the feeling was the same that you had when you were a kid and you finished your lollipop, you wanted some more. That is why we, the SERCA members, voted in favor of

repeating the experience during next year's annual meeting. I'm in!

And thank you Richard Wolbers! It was a pleasure to learn with you. You have the ability to make chemistry look easy!



Testing the gels and emulsions: xanthan gum emulsion and agarose gel

Bibliography:

Wolbers, R. (2003). *Cleaning painted surfaces*. London: Archetype Publications.

The use of gels in aqueous conservation on paper, by Richard Wolbers -

https://www.youtube.com/watch?v=mu7_nS-zF1c