

Cleaning of Acrylic Painted Surfaces

July 12 – 15, 2016

The John and Mable Ringling Museum of Art
Sarasota, Florida

SESSION TITLE: Cleaning with Microemulsions

Practical Session 4: Using and Modifying Microemulsions

INSTRUCTOR: Bronwyn Ormsby

ABSTRACT

This session introduces the concept, development, research and practicalities of the use of microemulsions as wet cleaning systems. Properties will be compared to simple aqueous and solvents; both mineral spirit and silicone solvent options will be introduced, research pertaining to microemulsions will be presented and tools and guidance around making and modifying their action on paint surfaces will be presented and discussed. This will be followed by a practical session where participants will be provided with microemulsions to test alongside established options.

OBJECTIVES

- To provide participants with up-to-date understanding of microemulsions as cleaning systems w.r.t their use on unvarnished paint films.
- To explore and understand how the properties of microemulsions can be useful for surface cleaning.
- To be introduced to and become familiar with a range of oil-in-water microemulsions based on mineral spirits and silicone solvents.
- To critically evaluate these new systems - alongside others provided during the workshop - by testing and comparing them to established/accepted cleaning materials.

CONTENT OUTLINE

A recent history of the research and an introduction to microemulsions will be delivered as a PowerPoint presentation. The practical session will involve exploring microemulsions and comparing them to established cleaning systems through their application to a number of provided paint samples.

METHODOLOGY

Lecture (afternoon): PowerPoint presentation.

Practical 4 (afternoon) - Surface cleaning tests will be carried out in the studio using a range of microemulsions on soiled samples provided for CAPS and results/observation tables will be provided for each sample as a record of cleaning response and associated observations. These practical sessions are supported by online videos on GCI CAPS site (resource materials).

BIBLIOGRAPHY

Ormsby, B., M. Keefe, A. Phenix, E. von Aderkas, T. Learner, C. Tucker & C. Kozak (2016). 'Mineral Spirits-Based Microemulsions: A Novel Cleaning System for Painted Surfaces, *Journal of the American Institute for Conservation*, 55:1, 12-31.



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Session Outline cont'd.


Ormsby, B., E. Willneff, M. Clark, J. Lopez, M. Keefe, and A. Phenix (2016). 'Cleaning acrylic paints: mineral spirits-based microemulsions and the question of residues' In: Selva Bonino, V. (ed), *Dall'Olio All'Acrilico, Dall'Impressionismo all'Arte Contemporanea*, 7th International Congress, Milano 13-14 November 2015: 97-106.


 Keefe, M., C. Tucker, A. Mardilovich Behr, G. Meyers, C. Reinhardt, T. Boomgaard, C. Peitsch, B. Ormsby, A. Soldano, A. Phenix, T. Learner (2011). "Art and Industry: Novel Approaches to the Evaluation and Development of Cleaning Systems for Artists' Acrylic Latex Paints." *Coatingstech*: 30-43.

 Ormsby, B., M. Keefe, A. Phenix, and T. Learner (2015). 'A summary of recent developments in wet surface cleaning systems: unvarnished modern and contemporary painted surfaces.' In *Current Technical Challenges in the Conservation of Paintings*, Eds. A. Barros D'Sa, L. Bone, R. Clarricoates and H. Dowding. Archetype Publications in association with the ICON Paintings Group, London: 1-13.

 Ormsby, B., A. Soldano, M. H. Keefe, A. Phenix, and T. Learner. (2010), An Empirical Evaluation of a Range of Cleaning Agents for Removing Dirt from Artists' Acrylic Emulsion Paints. *AIC Paintings Specialty Group Postprints 23*: 77-87.

 Dorman, N.(2012), "Conference Review, The Cleaning of Acrylic Paint Surfaces 3 London workshop: A space-time continuum of pH and conductivity". *Newsletter (Western Association for Art Conservation)* 34(3): 18-23.

 Stavroudis, C. (2016). 'Silicone-based solvents in conservation. As free solvents and components of el systems and microemulsions' In: Selva Bonino, V. (ed), *Dall'Olio All'Acrilico, Dall'Impressionismo all'Arte Contemporanea*, 7th International Congress, Milano 13-14 November 2015:176-185.

 Stavroudis, C. (2012), "More from CAPS3: Surfactants, silicone-based solvents, and microemulsions". *Newsletter (Western Association for Art Conservation)* 34(3): 24-27.

 = Essential reading material

 = Available online



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