



## Cleaning of Acrylic Painted Surfaces

July 12 – 15, 2016

The John and Mable Ringling Museum of Art  
Sarasota, Florida

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**SESSION TITLE:** Gelling/Emulsifying Aqueous Systems

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**Lecture 5 & Practical Session 5:** Gelling Aqueous Systems and O/W Emulsions

**INSTRUCTOR:** Chris Stavroudis

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### ABSTRACT

The Modular Cleaning Program will be introduced as a means to bridge theoretical understanding with the practice of formulating aqueous cleaning systems for acrylic paint surfaces. Various gelling options for aqueous cleaning systems will be presented. Conventional emulsions will be introduced and compared with the advantages of using polymeric emulsion stabilizers.

### OBJECTIVES

Participants will become familiar with the preparation of aqueous cleaning systems with the MCP (and by direct formulation). By using polymeric emulsion stabilizers, the solutions can be gelled, and, if appropriate, immiscible solvents can be emulsified into the gel to form conventional o/w emulsions.

### CONTENT OUTLINE

#### Lecture 5 (Thursday morning)

- Introduction to formulating aqueous systems with the MCP
- (A digression to solvent representation in the MCP)
- Gelling systems for aqueous systems
- Conventional emulsions
- Polymeric emulsion stabilizers

#### Practical Session 5 (Thursday morning)

- Preparation of MCP solutions with Xanthan gum as gelling agent
- Emulsify benzyl alcohol and Shellsol into gel to make emulsion system
- Test these systems on sample acrylic paint surfaces (with and without pre-wetting with cyclomethicone).

### METHODOLOGY

PowerPoint lecture, discussion, and hands-on mixing and testing.



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