

## **WORKSHOP INFORMATION SHEET**

### **Workshop topics Day 1**

#### **1. Metal soaps for dummies**

Those who are less familiar with the topic of metal soaps may feel a little overwhelmed by all the new information and scientific terminology. In this workshop, there will be time to ask all the basic questions and to reflect together on the talks of that day.

#### **2. Practical solutions for conservation problems related to zinc soaps**

Mechanical issues, such as flaking and interlayer delamination as a result of zinc soap formation and uncertainty over how to adapt consolidation and cleaning approaches is a priority/ major concern for conservators, since it endangers the physical integrity of many modern works of art. In this workshop, there will be the opportunity for conservators to discuss their experiences, and collectively come up with new practical solutions.

#### **3. Effects of solvents, heat and moisture on metal soaps**

There is a lot of uncertainty about how solvents, heat and moisture introduced for instance during cleaning or structural treatment affect metal soaps. In this workshop, a dialogue will be set up between scientists and conservators to translate together present scientific knowledge on the behavior of metal soaps into best practices for the treatment and display of paintings.

#### **4. Mechanisms and dynamics: towards a model for metal soap formation**

Is it possible to reach a consensus about a model for metal soap formation? Or are there still gaps in our knowledge? In this workshop, there will be the opportunity to discuss the mechanisms and dynamics of metal soap formation following on from the talks and poster sessions of that day that may have revealed new insights.

#### **5. The visual effect of the formation of metal soaps and the interpretation of the original intention of the artist**

As a result of metal soap formation, the paint may discolor, darken, become transparent, show whitish surface hazes or crusts, or other visual disruptions. These visual changes may also affect the art historical interpretation of the work of art. In this workshop, there will be room to bring in your own examples and to discuss implications for interpretation of the artistic intention and new ways of presentation.

## **Workshop topics Day 2**

### **1. The visual effect of the formation of metal soaps and the interpretation of the original intention of the artist**

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### **2. Analytical challenges**

In this workshop, participants will discuss developments of new analytical techniques for the identification of metal soaps (synchrotron-based analyses, macro-imaging, NMR mouse), as well as issues in the interpretation of analytical data.

### **3. How fast do metal soaps form: visual, archival and scientific evidence**

Model systems/ paint reconstructions have demonstrated that metal soap aggregates (protrusions) can form within a year. There are also examples of paintings where aggregates have erupted through layers of overpaint, showing that they are still active even after centuries. In this workshop, there will be the opportunity to share observations, and to discuss trends in the development of metal soap formation.

### **4. Optimal display and storage conditions; and monitoring**

There is a current debate about the relaxation of museum climate conditions, also for economical and sustainability reasons. However, this is not without risk. Recent studies have shown that, on the long term, small and localized fluctuations of T and RH may have considerable impact on the degree of metal soap formation. In this workshop, there will be the opportunity to bring in case studies and to discuss guidelines for climate control that may slow down, or even stop, metal soap-related degradation processes.

### **5. Relationship between metal soap formation and painting materials and technique**

Metal soap formation in works of art is inherent to the artist's choice of materials and his working methods. Differences in the quality of the painting materials, depending on the source and manufacture, may affect their stability. Differences in deterioration can also develop depending on how the materials are used and combined, and how the layers are built up. In this workshop, participants are encouraged to bring in their own examples to discuss together.