

# Technical Examination of Two (of the Seven) Edward Steichen *In Exaltation of Flowers*

Murals painted between 1910-1914 for a townhouse  
at 71<sup>st</sup> Street & Park Avenue in New York City



*Rose-Geranium* (1910)  
Subject: Katharine Rhoades

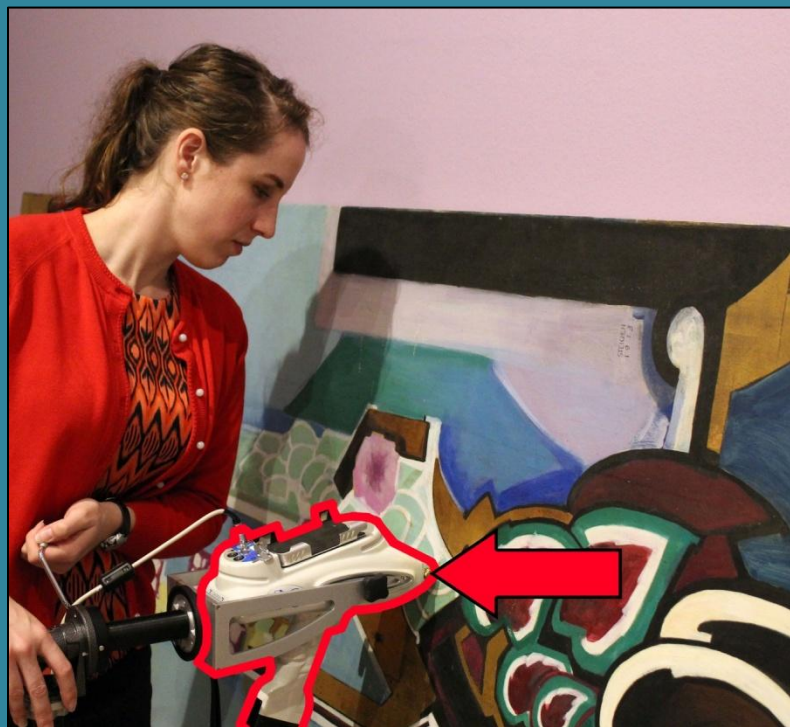


*Petunia-Begonia-The Freer Bronze*  
(1913) Subject: Charles Lang Freer

Presenter: Keara Teeter (kteeter@udel.edu), WUDPAC Class of 2019

ANAGPIC 2018 · Queen's University, Kingston, Ontario, Canada

# Introduction and Experimental Procedures



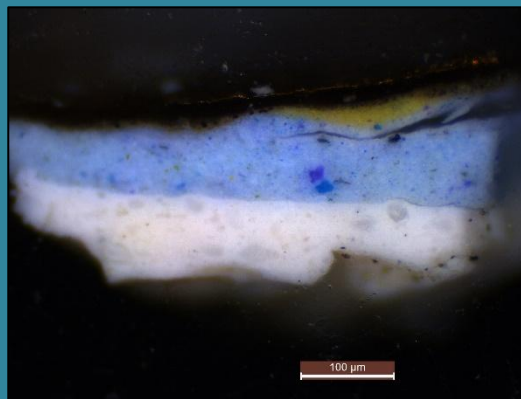
X-Ray Fluorescence Spectroscopy of  
*Petunia-Begonia-The Freer Bronze*



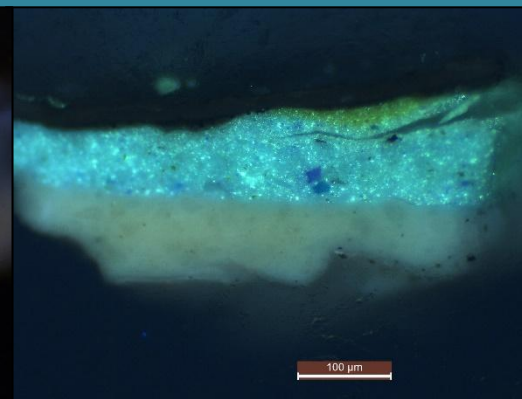
Losses in *Rose-Geranium*



Corroded metal leaf in  
*Petunia-Begonia-The Freer Bronze*



Metal leaf cross-section from  
*Rose-Geranium*, 200X visible light

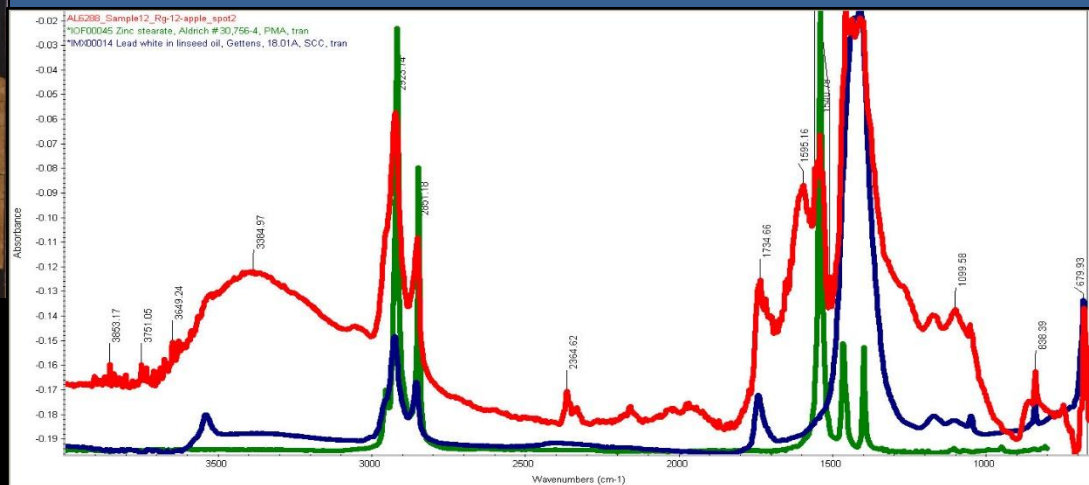


Metal leaf cross-section from  
*Rose-Geranium*, 200X UV light

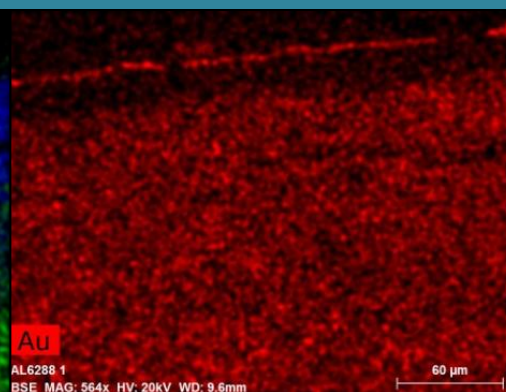
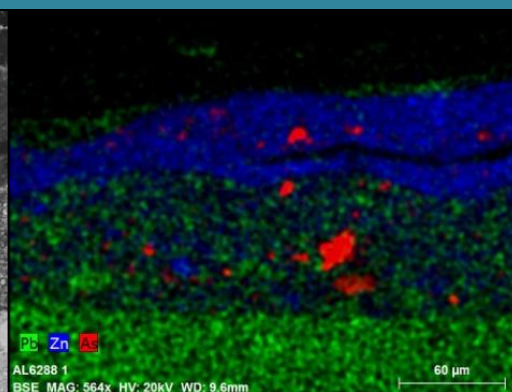
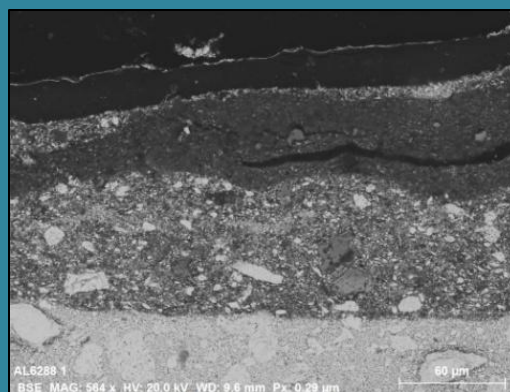




## Results and Conclusions



FT-IR: **RG-S-12** sample, **zinc stearate**, and lead white in linseed oil

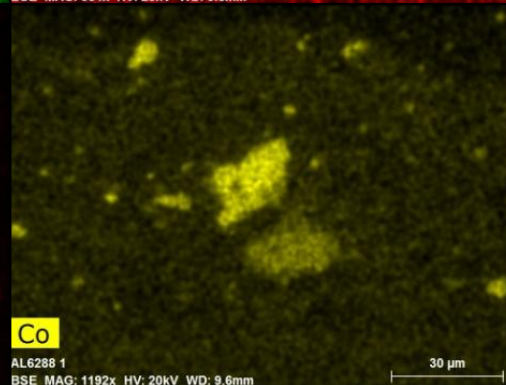
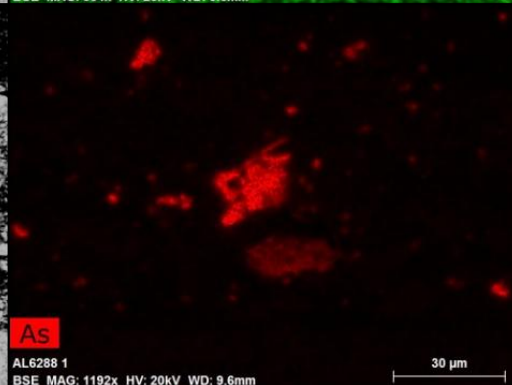
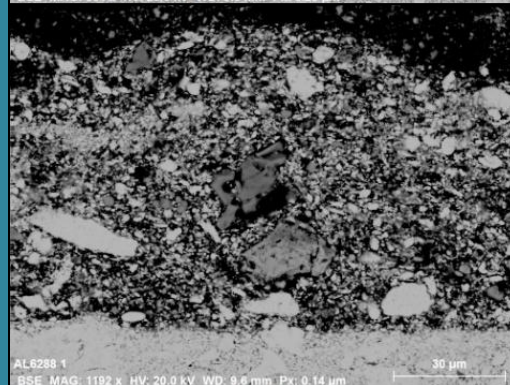


### SEM-EDS of RG-XS-1 at 564X

Left: BSE

Middle: elemental  
map of Pb/Zn/As  
(lead and zinc white)

Right: elemental map  
of Au (metal leaf)



### SEM-EDS at 1192X inferring light cobalt violet $\text{Co}_3(\text{AsO}_4)_2$

Left: BSE

Middle: elemental  
map of As

Right: elemental map  
of Co