

HOUSE OF THE TEMPLE

• Renovation Update for October/November 2011 •

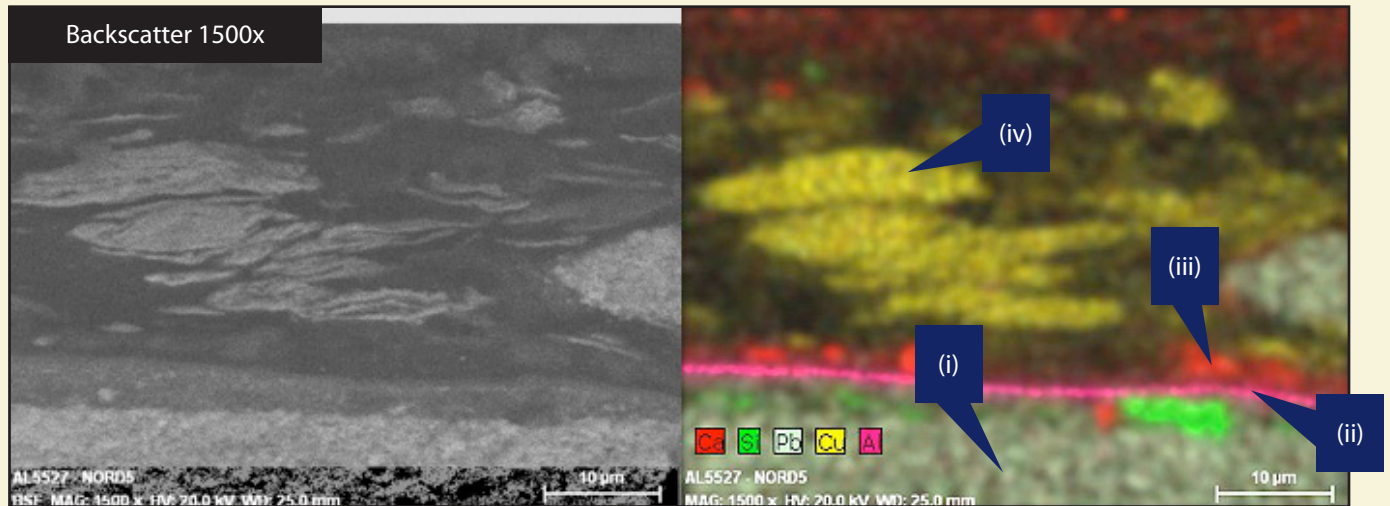
DURING OCTOBER AND NOVEMBER 2011, the Renovation Team worked with conservators to repair the earthquake damage at the west Temple Room window. Investigation of the existing storm water pipe system continued as well. Paint analysis in the Executive Chamber revealed four different painting schemes over the past 100 years. Finally, work on the mechanical, plumbing and electrical systems continued with determinations of locations for incoming water and fire service as well as sizing of the equipment.



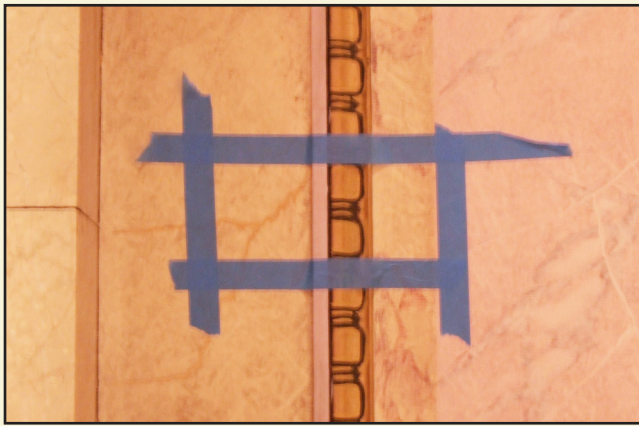
Richard Wolbers, Associate Professor, Coordinator of Science and Adjunct Paintings Conservator at the University of Delaware, is taking samples of the various painting treatment on the ceiling beams in the Executive Chamber.



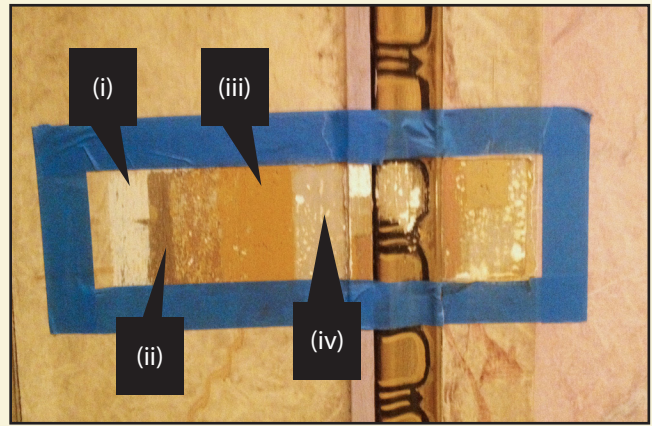
Over 30 samples were collected from the walls and ceilings to be analyzed. The samples are approximately 1.5 mm or 1/16 inch in diameter.



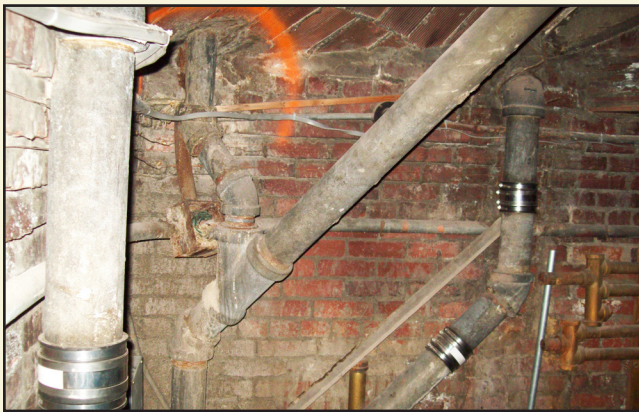
The above cross sections are magnified to 1500 times the original to allow analysis and review. The original paint was a gray stone colored paint (i) is essentially lead based (Pb; gray); over this gray layer is a yellow 'bole' or pigment containing aluminosilicates and lead (gray= Pb; green =Si; red=Ca; pink=Al). Next surface is the Aluminum leaf (ii) (pink line=Al). The red (Ca) is due to CaCO₃ (chalk; a 'lake' or absorbent base material for an organic dyestuff). The large chunks of the red are coincident with the tinted yellow glazing layer (iii) over the aluminum leaf. Over this layer is a brass powder metallic paint (iv) (yellow, Cu; Zn=green, shown above).



Following preliminary analysis of the wall treatments, a small section above (before) was exposed to reveal the various treatments.



Layers of paint and other coatings were removed to expose the four different treatments.



Rain leaders were reviewed and cameras used to observe the condition of pipe interiors. . Some cracks in the cast iron pipes in the areaways were observed. Any galvanized pipe remaining in the building is deteriorated and will need to be replaced as part of the renovation.



Example of Temple Room glazing which cracked during the earthquake. New glass is being fabricated and will be installed to make the window weather-tight. The yellow cast is accomplished by "painting" a glaze onto clear glass and then firing the glass in an oven. The glass is a deeper yellow at the bottom of the window transitioning to a light yellow at top of window.

