

Using the new G.C. Laser Cleaning System for cleaning and surface preparation for re-gilding of a large outdoor bronze monument of Alexander Hamilton

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The conservation of the Alexander Hamilton Monument by John Angel from the Chicago Park District and Ferguson Monument Fund will be discussed. The monument was installed in 1952 and was re-gilded in 1983. By 2015 over 80% of the gilding had failed and fallen off. Successful gilding of outdoor monuments requires very thorough surface preparation to remove all chlorides and active corrosion products. Intergranular corrosion is a particular problem that is often difficult to resolve. In order for gilding to last, a bronze has to be as corrosion free as possible. Traditional surface preparation techniques such as media blasting and ultra high-pressure washing carry the risk of causing physical changes to surface topography of the metal and may leave behind active chlorides. In comparison, laser cleaning is more environmentally friendly as there is no contaminated media waste disposal and the precision and control during cleaning is unparalleled. The results of laser cleaning and surface preparation for re-gilding using the new tunable 1064nm pulsed G.C. Laser Cleaning Systems, specifically designed for art conservation treatments, will be presented.
