Project Title: Analysis of the Dyes Used in the Colored Papers of Jose Guadalupe Posada’s Prints

The goal of this project is to characterize the dyes present in the colored papers of Jose Guadalupe Posada’s prints in order to develop a treatment protocol for their conservation. A range of analytical methods, including Fourier Transform (FT)-Raman Spectroscopy, surface-enhanced Raman Spectroscopy (SERS), Ultraviolet (UV) Illumination, Spectrophotometry, X-ray Fluorescence (XRF), and Polarizing Light Microscopy (PLM), coupled with Microchemical testing will be utilized to discern the dyes present. Twenty-five Posada prints from the Amon Carter’s collection will be examined. In addition, two dye manuals containing naturally aged, dyed-paper samples contemporary to the Posada prints will also be analyzed. The resulting data from the book samples will then be used to inform and confirm the findings from the investigation of the Posada prints.

Jose Guadalupe Posada (1852-1913) was a prolific and influential Mexican printmaker; he produced thousands of images printed on a variety of poor-quality papers, often colored with vibrant but fugitive dyes. The Amon Carter has a large collection of approximately 400 prints attributed to Posada, many of which retain their bright color. Several identical prints at different levels of fading also exist within the collection, providing a unique opportunity for analysis and comparison within the same object and print to print.

While a previous study has identified some of the synthetic colorants used in Posada’s prints using FT-Raman spectroscopy, the yellow colorants could not be characterized. By using additional analytical methods, this project hopes to characterize the dyes present, including the yellows, as part of developing a treatment protocol that will keep these highly soluble dyes intact during treatment.

Figure 1. A selection of the Posada prints in the Amon Carter’s collection

Resources:

