

## John Singer Sargent: New Insights into His Watercolor Materials and Techniques

As imaging technology continues to be developed in the service of material identification and mapping, long-standing assumptions about artists' media and processes can finally be tested. Analytical methods such as GC-MS, SERS, XRF mapping, and hyperspectral imaging represent opportunities to breathe exciting new life into exhibitions of works by artists who have become perennial favorites. John Singer Sargent is one such artist on whom numerous tomes have been written and about whom it may seem there is nothing more to say. This talk contradicted that notion by presenting new insights into Sargent's materials based on the coordination of close visual observation, scholarship, and material analysis using established scientific techniques as well as techniques that have only recently become available, such as hyperspectral imaging and macro-XRF mapping. The exhibition *John Singer Sargent and Chicago's Gilded Age* afforded the opportunity to conduct a technical study of eleven of Sargent's watercolors at the Art Institute of Chicago. Though the sample set is small for such a prolific artist, the works span nearly 40 years of the artist's watercolor production. He sustained passion for the medium throughout his life and, as analysis revealed, he sometimes experimented by altering his media. These discoveries were made possible through collaboration between curators, conservators, and scientists who are innovators in fields ranging from computer science to spectroscopy. They stress the importance of establishing a scientific basis for claims made about artists' processes, even if they originate from primary and secondary sources. This information adds to the extensive body of technical work that has already been published on the largest American collections of Sargent's watercolors, namely those at the Museum of Fine Arts, Boston, the Brooklyn Museum of Art, and the Worcester Art Museum.

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