

# Identification of organic colorants: from fibers to walls



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Since the first grass stains natural biological sources have been used to color fabrics. As we created our cultural heritage, we learned to use plants, mollusks, and insects to dye more than textiles. Woods used in fine furniture marquetry have been stained or dyed with organic colorants. Methods to make insoluble organic colorants by precipitating them onto inorganic supports resulted in organic lake pigments. Lake pigments are used in paintings on canvas, wood, and we are discovering more and more examples of the use of organic colorants in wall and mural paintings. Hundreds of natural biological sources have been documented sources for dyestuffs. Then in the late 1900s, the first synthetic organic colorant was invented by William Perkin while trying to make quinine. The transition from natural organic colorants to synthetic dyes was almost immediate c. 1860. Today, there are thousands of synthetic dyes. The challenge to identify organic colorants is complex especially within the limitations of conservation science and minimal invasive sampling. This complexity will be presented within the framework of the GCI's Asian Organic Colorants project that is ending early 2010. Besides liquid chromatographic techniques, there are new developments for organic colorant identification by non-invasive imaging, Raman spectroscopy, and Microspectrofluorimetry.

<http://www.getty.edu/conservation/science/asian/index.html>

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**November 20, 2009**  
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