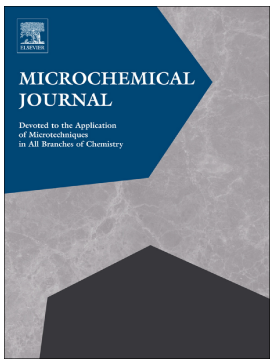

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Identification, characterisation and mapping of calomel as 'mercury white', a previously undocumented pigment from South America, and its use on a *barniz de Pasto* cabinet at the Victoria and Albert Museum.

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Abstract

An investigation into the materials and manufacturing techniques of a rare table cabinet decorated using the *barniz de Pasto* technique led to the discovery that calomel, mercury(I) chloride Hg_2Cl_2, had been used extensively and deliberately as the white pigment of choice. Analysis of the decorative scheme of the cabinet using micro-destructive and non-destructive techniques, such as X-ray fluorescence, Raman microscopy, micro-computed X-ray tomography and micro-X-ray diffraction, provided conclusive evidence regarding the identity, distribution and characteristics of this 'mercury white' pigment. To the best of our knowledge, this is the first documented instance of the intentional use of calomel as a pigment on a cultural heritage object. The investigation also revealed a design on the inner surface of the lid, concealed below a 20th century scheme. The rediscovery of this radical element in a substantially intact state provides grounds to investigate the complete removal of overpaint so as to restore the decorative integrity of the cabinet and permit a full appraisal of its complex iconographic scheme.

Keywords

X-ray fluorescence; micro-computed tomography; Raman microscopy; mercury(I) chloride; mercury white; *mopa mopa.*

1. Introduction

In 2015 a small, richly decorated table cabinet (Fig. S1) was given to the Victoria and Albert Museum (V&A) [1].[2] It was probably made during the seventeenth century in the northern zone of the Vice-

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