

ADDITIONAL FILE 3: μ -Raman characterisation of yellow μ -samples from case studies

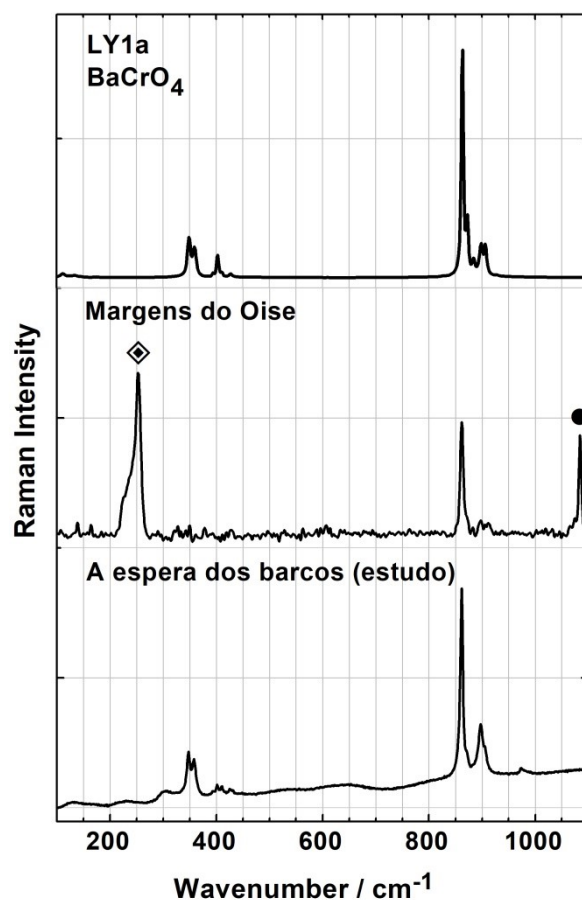


Fig. S5 Raman spectra acquired from a yellow μ -sample from Silva Porto's painting *Margens do Oise*, 1874-79 (Fig. S1 Top) and from João Marques de Oliveira's painting *A espera dos barcos (estudo)*, 1891 (Fig. 1 Top) compared with a LY1a (BaCrO_4) pigment reconstruction; ($\diamond$) HgS and ($\bullet$) CaCO_3 .

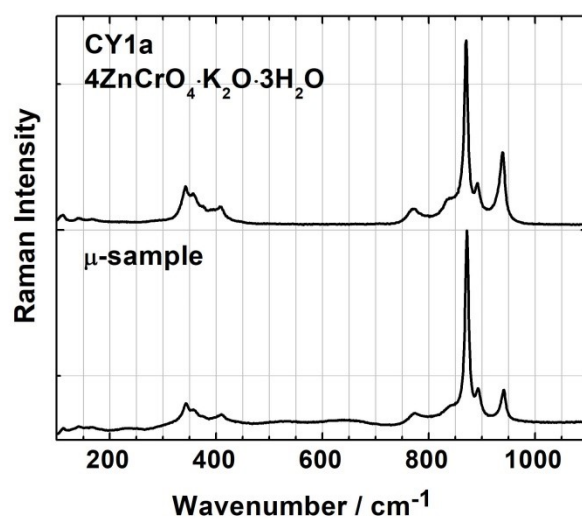


Fig. S6 Raman spectra acquired from a yellow μ -sample from Silva Porto's painting *Paisagem (Torres Vedras)*, 1881-89 (Fig. 1 Bottom) compared with a CY1a ($4\text{ZnCrO}_4 \cdot \text{K}_2\text{O} \cdot 3\text{H}_2\text{O}$) pigment reconstruction.

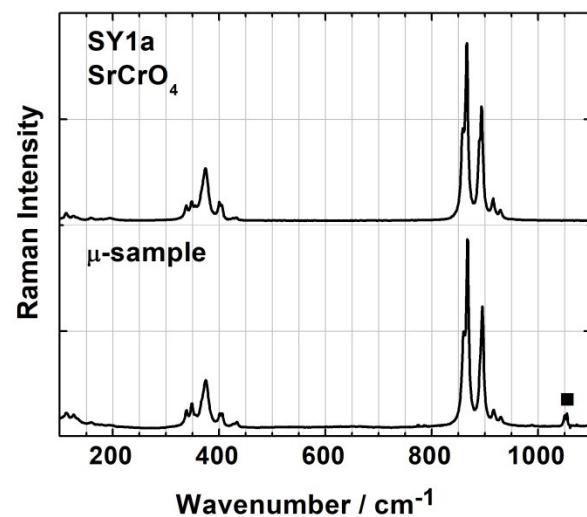


Fig. S7 Raman spectra acquired from a yellow μ -sample from Silva Porto's painting *Chameca de Belas (estudo)*, 1879 (Fig. S1 Bottom) compared with a SY1a (SrCrO_4) pigment reconstruction; (■) $2\text{PbCO}_3 \cdot \text{Pb}(\text{OH})_2$.