


Object Number	K358	Description	Pommel in gold, of cocked-hat form, cast with animal-heads, with incised Style II decoration, and panels with niello lines, all framed by imitation wire. Catalogue no. 57.
		Sample Description and location.	
		Sample K358-1 collected during conservation from grey material at mouth of pommel interior. Originally labelled as conservation sample 10.	



Figure 1. Image showing sample collection point for K358-1.

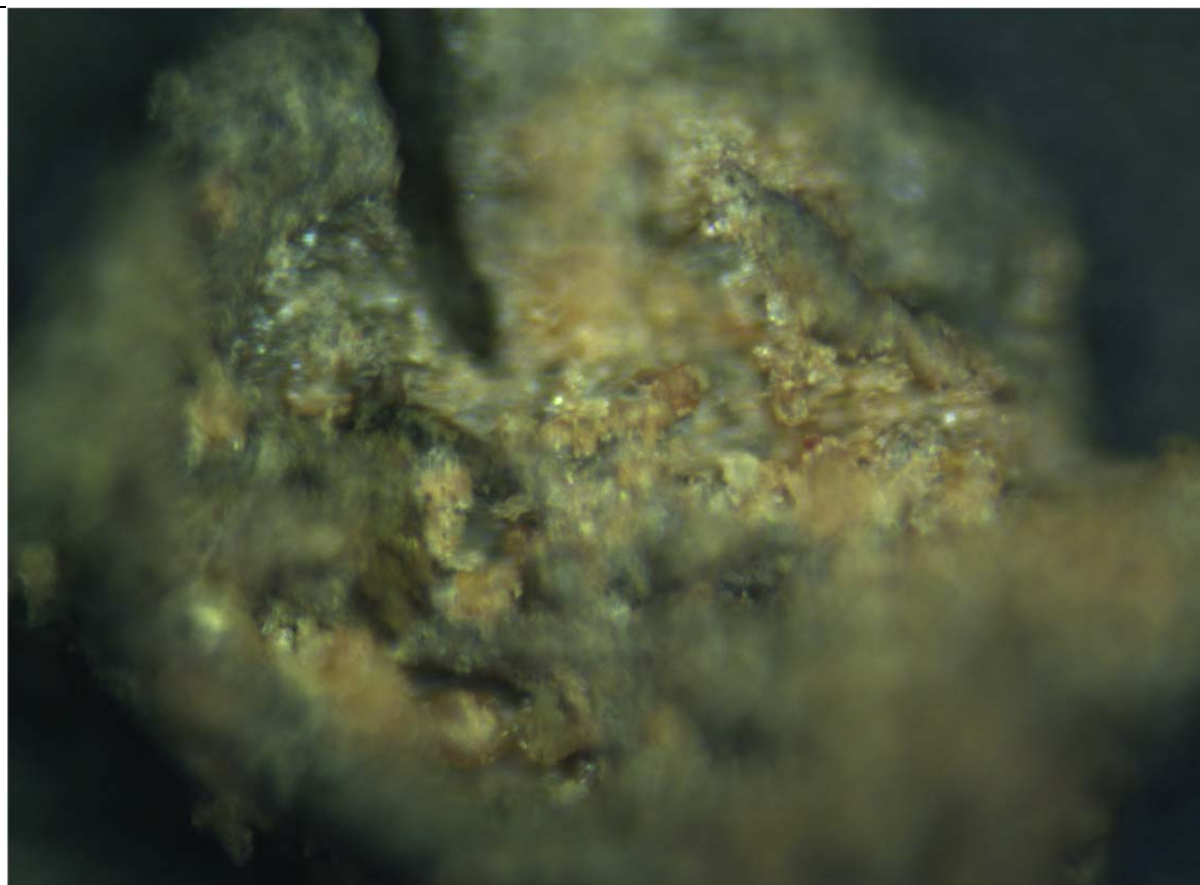


Figure 2. Detail of FTIR analysis point for K358-1-1.

FTIR Analysis

Comments: Spectrum K358-1-1 (top, red) appears to be clay, likely from the burial environment. The spectrum is a close spectral match for Japanese Acid Clay (bottom, blue) shown here as a generic comparison for clay like material. Generally speaking, silicates are characterized by a region of strong absorption near 1000cm^{-1} due to Si-O stretching, and a second region of absorption near 500cm^{-1} arising from Si-O bending, often in combination with other cation-oxygen vibrations (Djomgoue & Njopwouo 2013). The intense peak around 1000cm^{-1} corresponds to Si-O bonding in silicates, a major component of clay minerals.

Representative Spectrum

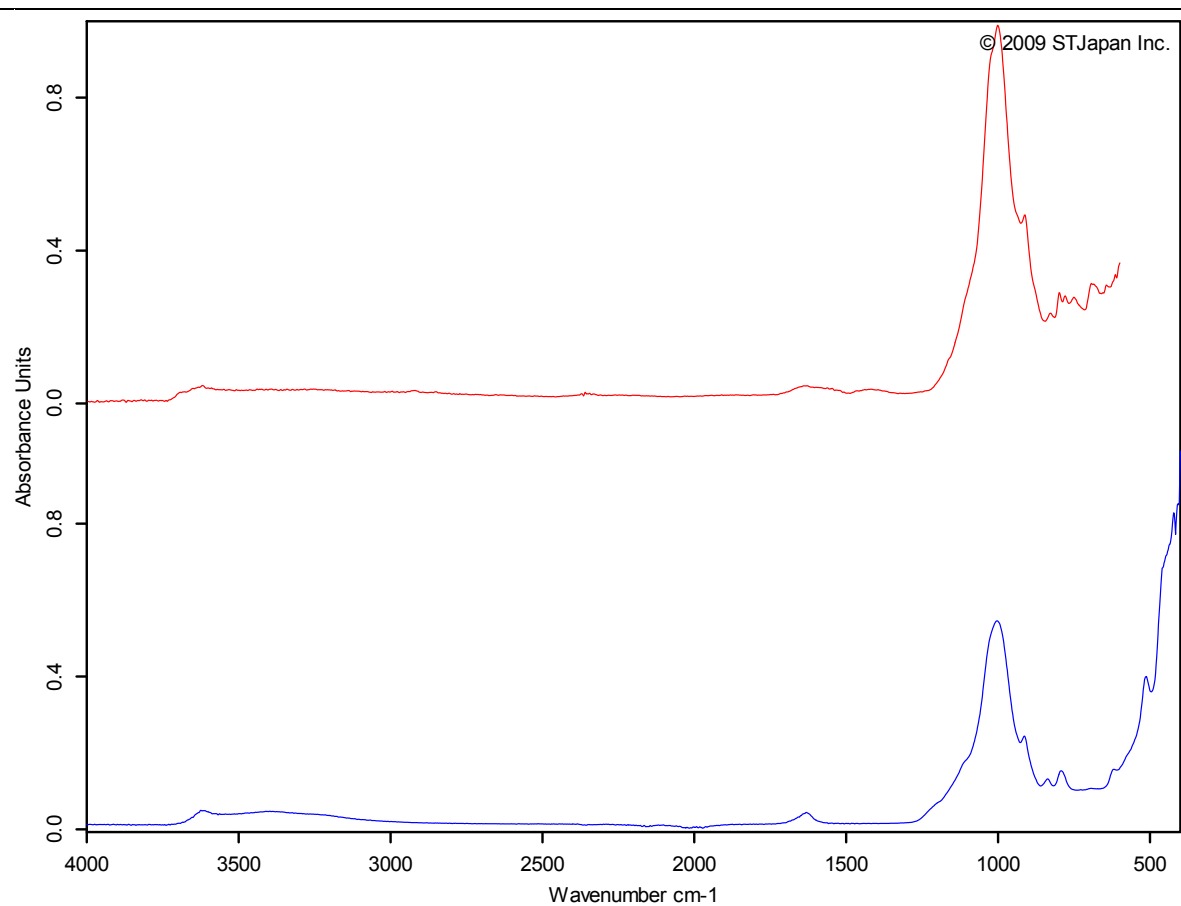


Figure 3: Top (red) K358-1-1. Bottom (blue) Japanese Acid Clay reference spectrum, ST Japan 2009.