

MULTI ANALYTICAL TECHNIQUES OF ANTHROPOID WOODEN COFFIN FROM LATE PERIOD, EGYPT

The present study aims to identify the pigments, ground layer, and previous restoration materials used in a polychrome wooden coffin using multi-analytical techniques. It utilized optical microscopy, technical imaging, scanning electron microscope attached to X-ray dispersion unit, X-ray diffraction, Raman spectroscopy, and Fourier transform infrared spectroscopy. The results showed the use of yellow as goethite α -FeOOH, blue as Egyptian blue [Cuprorivaite ($\text{CaCuSi}_4\text{O}_{10}$)], red as haematite (α - Fe_2O_3), and white as calcite (CaCO_3). The black pigment as carbon(C) and the binding medium in both the calcite-based plaster layers and the polychrome layers was identified as animal glue. The previous consolidation material was primal AC33.