Researching 3D & Infrared Imaging for Object Documentation
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Light and the varying optical properties of materials are important for conservation and research imaging to aid in recording the condition, informing care and treatment, and expanding the understanding of cultural heritage objects. Infrared imaging is one of the routine spectral imaging techniques used for paintings and paper conservation to record the varying reflection, transmission, and absorption of infrared radiation by the materials. However, few studies include infrared imaging for the examination of three-dimensional objects including archaeological, ethnographic, historic, sculptural, decorative, and contemporary arts. Three-dimensional imaging techniques, including photogrammetry and white light scanning, more fully document the surface and shape of three-dimensional objects than a single still image. Building on the ability of infrared radiation to penetrate through some pigment and material layers, the integration of infrared and three-dimensional imaging techniques will offer a new level of documentation of an object’s condition, materials, and manufacture. Infrared imaging of objects increases the visibility of obscured details and inscriptions, aids in differentiating materials, and documents the condition. The presentation will include initial results from an imaging case study at the Freud Museum in London, UK.

Image: Webb imaging ‘White Ground, Red Figure Lekythos’ (#4492) at the Freud Museum, London, UK.