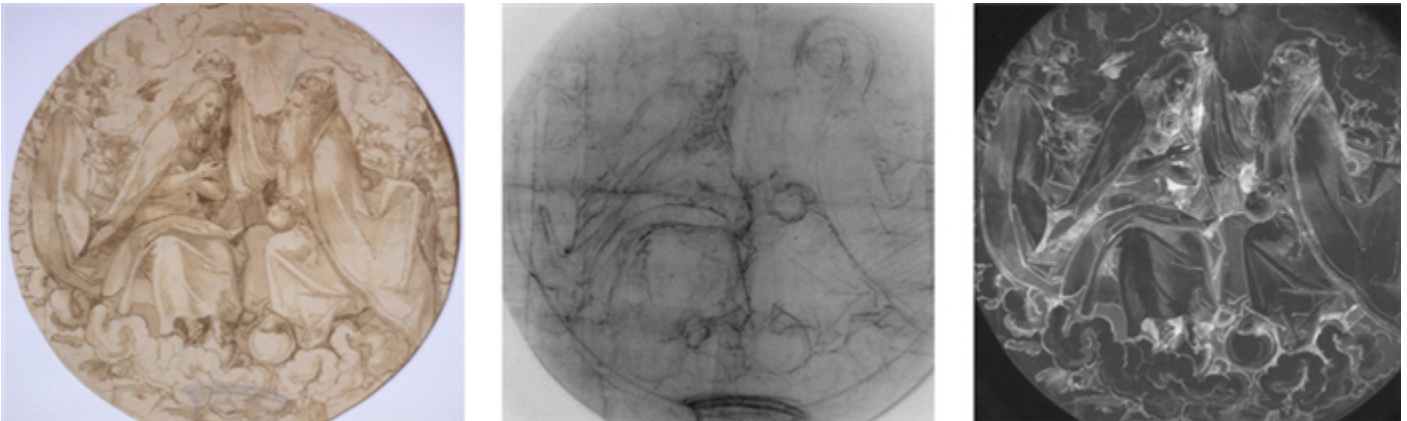


Multispectral Imaging of Artwork

- Reveal and study under-drawings
- Accurately determine colour and pigments
- Identify regions of restoration
- Recover faded colour, inks and signatures
- Non-destructive, non-contact
- Chemical imaging spectroscopy

Art Conservationists have been rapidly adopting multispectral imaging as an essential, non-destructive tool for the study of paintings and archival records. Perhaps the most famous application of this technology is the work on the Dead Sea Scrolls. An imaging system based on the VariSpec tunable filter, successfully revealed ink inscriptions from the parchment and papyrus. More information about this imaging process and the scrolls is available at the [San Diego Natural History Museum](#), and [Ancient Biblical Manuscript Center](#). The multispectral imaging work was conducted by Dr. G. Bearman of Nasa JPL.



Visible and infrared reflectance imaging (reflectography) is the primary technique for artwork and document analysis. The individual absorbance and reflectance of different materials used in the works allows unique identification. The infrared light also penetrates the outer layers of paint to expose underdrawings made with carbon and iron-based materials.

Goltz1, Cloutis, Attas et al have achieved significant success with multispectral imaging of works of art and historical documents. The images (above) of the Untitled roundel (The Holy Trinity) by Viet Hirschvogel, the Elder, 15th century, illustrates the ability to see through the outer layers to the under-drawings.