MA-XRF Scanning using Handheld XRF Spectrometers

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A great deal of information can be ascertained from a detailed elemental image (map) of paintings and artwork. Aside from very accurately determining the elemental make-up of the various pigments used in the visible image, underlying images can be detected and elementally mapped. To this end, the capability to do such analysis has been developed and improved upon over the recent years with devices from the likes of Bruker and Elio, and other research organizations. Each of these has their strength and weakness.

In many cases the cost of acquiring newer scanning capable systems is prohibitive. The new advancements in the system presented here help alleviate that expense by incorporating typical handheld XRF systems that are already extensively used in Museums across the world (Bruker Tracer 5i). The system is designed to be used in conjunction with the MPS 400 E Mobile Art Scanner designed by DeWitt Systems.

The initial results of mapping several paintings will be presented displaying the advancements in handheld XRF scanning capability.