## Faded flowers, analysis of modern marquetry applied on 17th and 18th century Dutch Furniture

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## Abstract

In the 19th century the decorative 17th century Dutch flower marquetry furniture became collectible once more. One didn't stop at being satisfied with the genuine article but soon when stocks ran out the 'improvement' of hitherto undecorated pieces started to take place. To the extent that it is sometimes hard to distinguish between authentic 17th and 18th century marquetry and the additions of the late 19th - and early 20th century, even for trained specialists. It goes without saying the distinction between authentic original and altered object matters.

Art dealers and historians might therefore look at stylistic details, anachronisms in the depicted figures or unbalanced, cramped compositions, whereas conservators will try and pick up on technical details like the veneer thickness or wood species used. As some marquetry elements usually are artificially stained this might offer yet another viewing angle. The positive identification of modern colorants could serve as a valuable tool for the dating of the marquetry inlays. A complicating factor however is the often degraded state of the colorants in the today already severely faded marquetry. This research makes use of the fairly unique collection of unused marquetry elements originating from the stocks of an Amsterdam marquetry cutter J.L Miner, active between 1905-1927. (Now kept as study material in the Rijksmuseum Amsterdam, the ICN and the AHM.) The analysis performed on samples taken from this collection served as reference material which was subsequently compared with samples taken from marquetry on historic furniture.

As sampling can be problematic, the approach we choose was to first apply noninvasive techniques for first screening and sample selection. To identify the possibilities and limitions of the techniques, the first application was done on some left over materials from the late 19<sup>th</sup> century, early 20<sup>th</sup> century from a furniture restoration practice. It was known form historical sources that these materials were used in marquetry. A portable X-ray Fluorescence (XRF) was used to determine the inorganic elements present, while a portable Fibre Optic Reflectro Spectrometer (FORS) was used to collect reflectance from UV/VIS up to near infrared (NIR). Next, samples were taken used analysed by High performance Liquid Chromatography coupled to Photo Diode Array detection (HPLC-PDA). In the second step marquetry of objects, suspected to be not original, was analysed.

The results of the analysis, and the possibilities and limitations of the technique used will be discussed during the presentation.

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