

THE SET OF SIX ARMCHAIRS IN LOUIS XIII STYLE FROM THE COLLECTION OF PALAZZO MADAMA IN TURIN: TECHNICAL STUDY AND CONSERVATION TREATMENT

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Abstract

The conservation work carried out on a set of six armchairs with leather upholstery from the collection of Palazzo Madama in Turin, represented the main research project for the training program in leather conservation attended by the students of the Master's degree in conservation, hosted at the Reggia of Venaria Reale.

The set of Louis XIII style armchairs arrived to Venaria Reale Centre in poor conservation condition and with very little information regarding their history. A combined research through study of archival sources and style comparison was then necessary to make up for the absence of data regarding the manufacture and dating.

The set of six armchairs from the collection of Palazzo Madama, Turin

The understanding of materials and techniques employed for the backrests revealed to be challenging, due to the lack of objects reported with a similar decoration scheme. Venaria Reale Center's scientific department offered an outstanding work to help founding out more about it. Thanks to a thorough investigative process, more details have been revealed. A non-destructive range of **multispectral imaging techniques** were used to observe the decorative layers to answer initial questions. These were then combined with other more targeted investigations through point analysis. By using a selected range of wavelengths in the electromagnetic spectrum, imaging procedure allows to extend the object observation beyond the capabilities of the human eye. By providing information on the surface, they can permit meaningful comparisons within the assembly itself.

a) Visible-reflected (VIS)
b) Ultraviolet-reflected (UVR)
c) Reflectance Transformation Imaging (RTI)
Zoomed images were studied to provide more local information and allow for more detailed observations
d) Infrared-reflected false-colour (IRRFC)

Scanning electron microscopy – enegy dispersive X-ray analysis (SEM-EDX) and stereo microscopy
A number of samples were taken and examined as cross-sections to conduct further material tests.

Lugol's Iodine (IKI) test determined the appliques are made of protein-based rather than starch-based material. Iodine dissolved in an aqueous solution of potassium iodide reacts with starch producing a deep blue-black color. Our samples didn't show such a coulor change.

Conservation issues
The six armchairs were in poor conservation condition, clearly showing that little care was given over the last century. Apart from the structural damage to the wooden frame, not the focus of this study, the leather was soiled, heavily worn, with extensive tears and losses partly due to the incorrect tensioning caused by the nails. Planar distortion and localized hardening were also caused by the tensioning and environmental conditions. The decorative surface was partly hidden underneath a build-up of waxy-oily soiling, with several paint losses and darkening of cupper based pigments. Some of the painted appliques (mainly faces) were found to be lost, rather than dirty. The leather at the seats was believed not to be original. Here the leather was extremely fragile, powdery with extensive loss of the grain surface, tears and losses throughout. The damage was both visual distraction and structural weaknesses. Widespread signs of insect damage called for an anoxic treatment, prior the conservation process started.

This study allowed to reveal the relevant past of the set of armchairs, featuring in the prestigious Trivulzio Belgioioso Collection of Milan, before appearing in the catalogues of Palazzo Madama in Turin

The embossed, gilded and painted leather is what surprised the most, revealing an unusual decorative technique never recorded before this study. The specificity of this unusual combination of techniques along with the assembling of various types of materials, called for a detailed investigation. The decision making behind the treatment aimed to address the conservation issues, whilst ensuring the permanence of the traces left of these functional objects by time and events.

The Armchairs set

Little is known about the armchairs set's history. A sole archival note was found referring to the set, which informed about its previus belonging to the Trivulzio collection. It is known that the prestigious collection was acquired in 1935 from Palazzo Madama, thanks to the mediation of Pietro Accorsi, renewed antique dealer of his age, and supported by the King of Italy Umberto II Duke of Savoy.

The stylistic comparison with those of similar armchairs allowed to date the ones from Palazzo Madama's collection to the end of the 16th century and the origin of their manufacture to the north of Italy. With turned frame and leather upholstery, this set of armchairs is a beautifully manufactured example of Louis XIII style furniture: essentially rectilinear in form, rather simple and severe, leather upholstered seat and back panels, an H-form stretcher and an extra stretcher joining the front legs above which both strengthens and decorates .

Both the iconography repertoire and the decorative techniques employed in these armchairs are unusual and called for further investigation. The walnut frame is beautifully decorated with gilded leather back panels, secured to the frame with decorative gilt nails. The gauffred technique reminds the Italian bookbinding tradition of the XVI Century, when gold appered for the first time. The seat panles have been decorated by the means of heated finishing tools indenting repeating patterns, although some decorative motifs seem created as segmented lines.

The main scene is framed by a curvilinear design and it's different for each armchairs. The scenes have been partly painted straight on the leather panel, whilst other details as the flesh part of the body, the garments and the flesh parts of the bodies are seemingly cut from other artifacts and applied to fit within the scenes.

A smull wooden trunk, lined with the exactly same decorated leather was found in Venice, belonging to the Ca d'oro collection. This is dated to the XVI Century and attributed to Venetian artisans .

Due to the thick layer of dirt the complex decorative scheme wasn't understood at first sight. Because of the rarity of similar examples of decorative technique on leather artefacts involving the use of painted appliques, these materials needed to be investigate purposely. The main question regarded what these appliques were made of. Answering to this question would have simultaneously add some valuable information to the knowledge about leather objects, as well as provided the foundation for the conservation strategy. Imaging techniques helped to understand gave important clues about the surface morphology. **Further tests** determined the appliques to be protein-based material, rather than starch-based. Further discussion is needed within the specialist area about the origin and diffusion of this particular technique.

e) Infrared-reflected (IRR)
These images were highly valuable in revealing details about the assembly and concealed features
X-Ray Fluorescence (XRF)
Allowed an elements mapping to be created and the original pigments to be under-

The trunk from Ca' d'Oro collection, Venice (attributed to Venetian artisans, XVI Century)



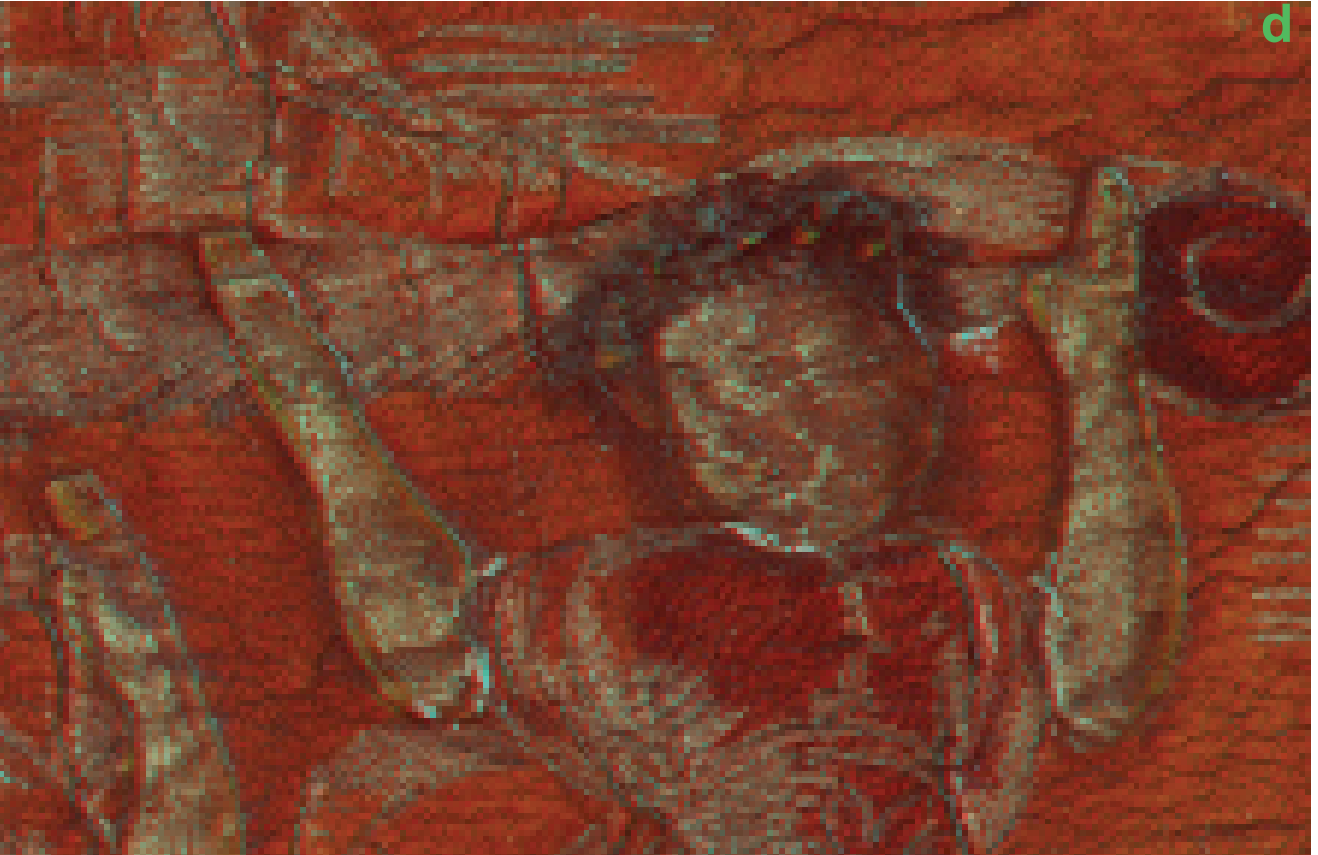
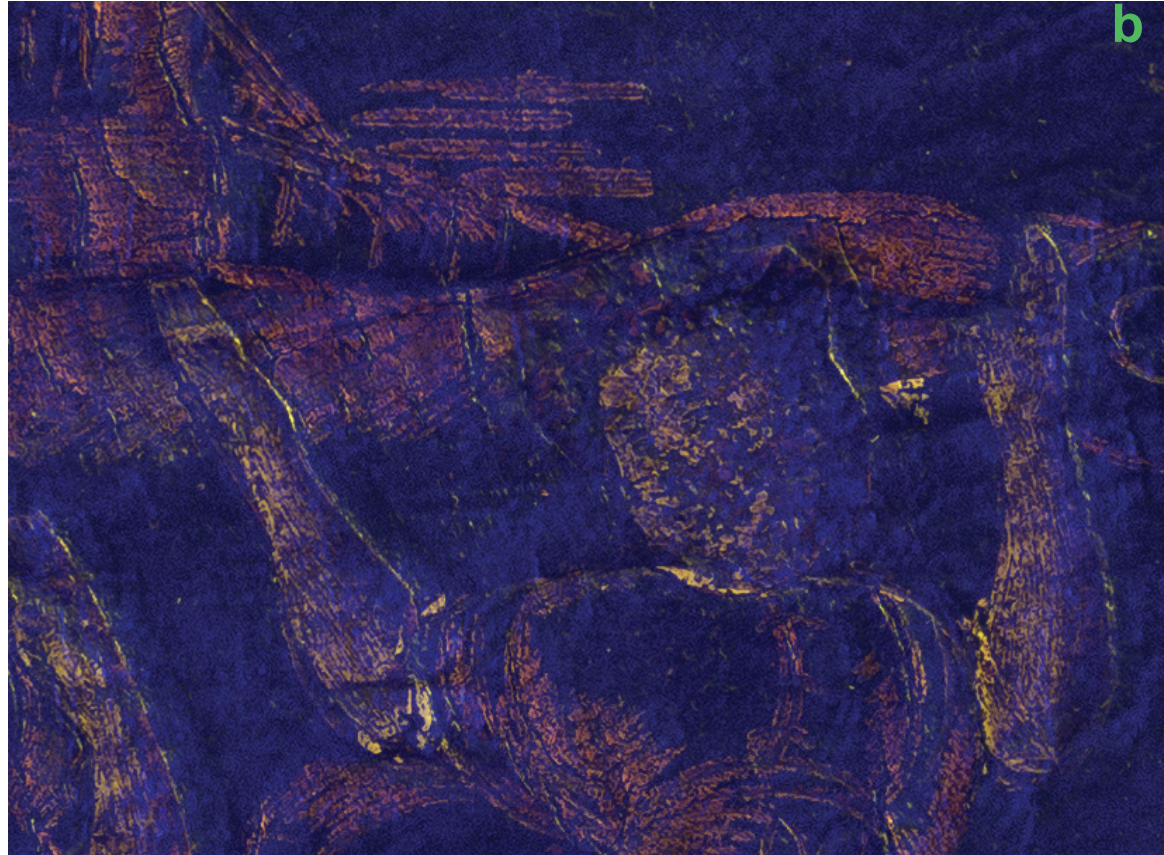
The set of six armchairs from the collection of Palazzo Madama, Turin

The investigative process

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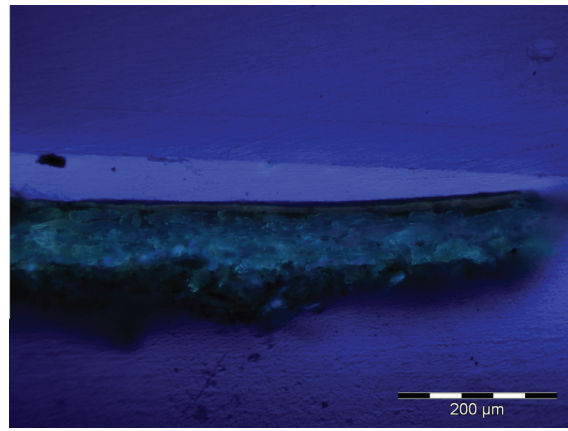
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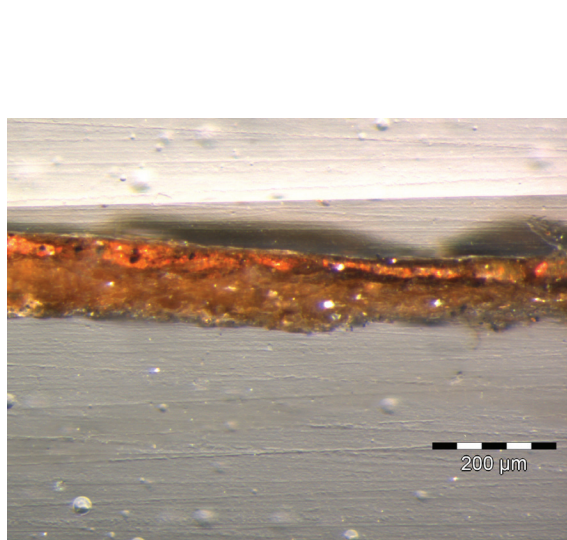
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a) cross-section seen under UV light, stereo microscopy



b) coss section after Lugol test

