Abstract

The conservation work carried out on a set of six armchairs 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 six 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 investigative process

The understanding of materials and techniques employed for the backrests revealed to be challenging, due to the lack of objects reported with a similar decorative scheme. Venaria Reale Centre'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 procedures allow to extend the object observation beyond the capabilities of the human eye. By providing information on the surface, they can permit meaningful comparison 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 (IRRF)

Conservation issues

The six armchairs were in poor conservation condition, clearly showing that little care was given over the years. By the tensioning and environmental conditions, 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 rails. Planar distortion and localized hardening were also caused by the tensing 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 almost totally lost. 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 arcoxic treatment, prior the conservation process started.

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 previous 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 funds⑤

The six armchairs from the Palazzo Madama, Turin

The five from Ca' d'Oro collection, Venice

Deatiled lines. The main scene is framed by a curvilinear design and is different for each armchair. 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 small 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.

The strategies for the repair to the leather began with flattening focused tests. The leather acidic degradation at the seats didn’t show such a color change. 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 the leather artefacts involving the use of painted appliques, these materials needed to be investigate purposely. The main question regarded what these applications 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 applications 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 (IRRI)

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 identified. The leather of 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.

Conservation choices

The conservation project has been a challenging and rewar ing learning training platform for Venaria Reale’s MS students. The treatment aimed to address the conservation issues listed above, involving:

- Consolidation with Kiel GC in isopropanol at various dilution (1 to 3 %) of the leather grain, especially the one at the seats, where the extensive powdering required strengthening to bear the repair/partial lining followed afterwards.
- Dry cleaning and further sympathetic cleaning taking into account original materials and surface deposit types, following focused tests. The leather acidic degradation at the seats didn't allow for any further cleaning system to considered.
- The strategy for the repair to the leather began with flattening and re-shaping the areas of planar distortion, through humidification with Sympatex. Localized support lining was necessary on areas of open damage to provide support, whilst localized loss compensations were carried out to visually reintegrate those areas. Medium weight (84g/m2), Japanese Sekishu and a mixture of Evacan-R with little addition of Shou starch paste were used to this aim.

The six armchairs from the Ca’ d’Oro collection, Venice

5. IRR images clearly showing two different leather grounds
6. IRRI image showing extra-losses of painted areas
7. IRRI image showing details of decorative techniques
8. IRRI image showing different lines in texture
9. IRRI image showing entire losses of painted areas
10. IRRI image showing paint in good conservation state on the applique
11. IRRI image showing line of loss of printed applique
12. IRRI image showing different lines in leather
13. IRRI image showing paint in good conservation state on the applique
14. IRRI image showing line of loss of printed applique
15. IRRI image showing different lines in leather
16. IRRI image showing paint in good conservation state on the applique
17. IRRI image showing line of loss of printed applique
18. IRRI image showing different lines in leather
19. IRRI image showing paint in good conservation state on the applique
20. IRRI image showing line of loss of printed applique
21. IRRI image showing different lines in leather