

Master-Thesis in Conservation-Restoration

Assessment of Uncovering 14th C. Wall Paintings at Château de Germolles



Fig 1: Bird's eye view of chateau de Germolles before the restoration of the ducal chapel and of the two towers of the entrance gate, © A. Rodrigue 2007.



Fig 2: Dressing room of Countess of Nevers, Southwest corner, wall paintings decorated with letters and teases, © SUPSI 2016.

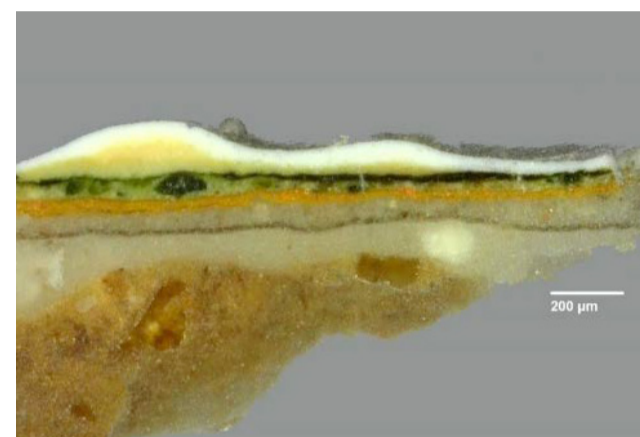


Fig 3: Photomicrograph of the cross section showing the double green layer underneath the lead white paint layer, © SUPSI 2015.

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Abstract

The aim of this research is the evaluation of safe uncovering methods to reveal fourteenth century wall paintings in the Château de Germolles in France. The aim of uncovering is to allow understanding and appreciation of the sophisticated 14th C. decorations with multi-layer stratigraphy and significant metallic decorations with tin foils and gold leaves. The paintings in the dressing room and bedroom of Countess of Nevers, depict initial letter for ducal couple 'P' for Philip the 'Bold' and 'M' for his wife Margaret of Flanders, the letters are painted in white over a green background and are alternated by teasel decorated with metallic leaves.

The historical modification of the rooms of ducal apartments at Château de Germolles started in the 19th C. when the painted walls have been covered with gypsum plaster and wallpaper. Before covering the paintings, the surface of the walls with the medieval decoration was keyed to provide roughness and better adhesion of the overlying plaster. The paintings have been hidden and forgotten until the 20th century when they were accidental rediscovered and partially uncovered. The rapid and abrupt removal of the plasters to reveal the medieval paintings caused significant damage and loss of the original decorations. The subsequent 1990's restoration work has stabilized the wall paintings but also contaminated them with addition of conservation materials, extensive repainting and overpainting interventions. As a result the full scheme of the original paintings has been compromised and misinterpreted, the traces of sophisticated metallic decorations have been mostly lost or covered by repaintings.

Now several portion of paintings are still covered by the 19th C. plaster. The development of a safe uncovering method would allow to reveal original remains not treated during historical interventions and to understand the original scheme of the paintings and its techniques. Furthermore, this study aimed at understanding deterioration problems and development of conservation methodology to ensure stability of the paintings over time.

Methodology

The research started with the review of the literature and of the previous studies. Then it focused on understanding original and covering materials and assessment of their current condition. The process revealed potential risks which would impede a safe uncovering. Different methods of uncovering tests revealed that the intervention is damaging for the paintings, due to the lack of adhesion between primary and secondary supports and between the paint layers. In addition, lack of cohesion of original plaster is a limiting factor for safe uncovering the paintings and its consolidation is a prerequisite to uncovering attempts.

A number of uncovering tests with different methods revealed that uncovering must be preceded by stabilization of the paintings underneath covering materials by consolidating original plaster. The process is essential to ensure the stability of the paintings and allow to continue further conservation treatments.

The principal intervention undertaken through the study was the consolidation of the original plaster with inorganic consolidant (Ethyl Silicate) with the aim to re-establish its internal cohesion. The intervention was limited by time and resources and focused on particular area of the paintings with unstable condition. The preliminary stabilization treatment has been achieved that gives possibility to address to other deterioration phenomena of the paintings, such as lack of adhesion between primary and secondary supports and furthermore perform re-assessment of safe uncovering intervention.

Unfortunately, the pre-consolidation tests did not provide sufficient results to continue further testing. The consolidant applied through the covering plaster had the effect of making it harder and uncontrollable for uncovering. On the other hand, the stabilization effect on underlying paint layers are unreliable due to heterogeneous condition of the paintings. The entire surface was keyed during 19th intervention and therefore each decoration of the paintings may be in different condition, the existing losses of the layers are distributed at different level of stratigraphy.

The other stabilization intervention undertaken aimed at addressing the lack of cohesion of the original plaster.

This was identified in the areas revealed underneath wooden panelling. Plaster consolidation has been performed on the bottom part of the north wall in the bedroom of Countess of Nevers with inorganic consolidant Ethyl Silicate (KSE510). An effective consolidation result has been observed on samples in similar condition taken from the same areas and treated in the lab

with Ethyl Silicate. Due to the time constraints and accessibility of the site location, the in-situ evaluation of the treatment on site has not been possible (but it is planned for the future). Lab testing performed on the fragments of original plaster show an effective consolidation results, but also some color saturation, compared to an untreated fragment.

Conclusions

The study confirmed that the medieval complex and sophisticated paintings are present under the covering plaster in all the areas investigated. These paintings are not stable and their uncovering requires a preliminary stabilization intervention that must take place before removal of the covering layers. The research would prospect testing with other uncovering methods, such as Laser, other types of chemical/mechanical uncovering methods, but always following intervention to stabilize the paintings. The study has evaluated the possibilities and limitations of a number of uncovering interventions, with and without pre-consolidation. The results show that safe uncovering is not possible. For the safety of the original paintings, it is preferable to keep the paintings covered underneath non-original plaster and consider it as a buried archeological site concealing but protecting precious evidence of the past which have been extensively documented as part of this research.

The painting technology was better understood and confirms that the castle of Germolles is of high importance for the rare documents of medieval paintings technology that is preserved there.