

# Saltmarsh *Paintings Conservation*

**Conservation treatment report for  
*The Royal Coat of Arms to George III***



**November 2023**

Polly Saltmarsh PG Dip. (Courtauld) ACR  
Email: [pollysaltmarsh@outlook.com](mailto:pollysaltmarsh@outlook.com)  
[www.paintingsconservation.co.uk](http://www.paintingsconservation.co.uk)  
Phone: 07942 788835  
Cambridge

## Contents

- Acknowledgements
- Condition report
- Treatment report
- Conclusion
- Materials used
- Plates

<b>Report no.:</b>	<b>SAG/01/2023</b>
<b>Date:</b>	29 <sup>th</sup> November 2023
<b>Author:</b>	Polly Saltmarsh Saltmarsh Paintings Conservation Cambridge
<b>Photographs:</b>	Polly Saltmarsh, 2023

© Polly Saltmarsh 2023

This report is submitted subject to the following conditions:

1. That it is not used in legal proceedings without the express permission of the author
2. The author does not hold herself responsible for any use that may be made of this report, or for any consequences, legal or otherwise, that may arise from its submission.

**Conservation treatment report for *The Royal Coat of Arms to George III***

**SAG/01/2023**

**27<sup>th</sup> October 2023**

**Acknowledgements**

The project was co-ordinated by Justin Hawkes and the other is grateful to him and Tom Shearing for handling the installation and transportation of the Royal Arms. Thanks also goes to Rev. Michael Biggs for his help and enthusiasm throughout the project. A grant for the conservation treatment was generously provided by the Church Buildings Council who are gratefully acknowledged. The practical treatment was undertaken by the author and Ulla-Satu Grimmett.

**Condition report**

The painting is executed in oil on a wooden panel measuring 184 x 171 cm at its maximum dimensions. The panel is formed from four boards in a horizontal alignment. The four boards also make up the frame of the picture and decorative moulding has been attached to the front surface to indicate the main panel and the frame. The boards are unusually wide, almost 45 cm, and are likely to be English oak. The original tool marks are visible on the reverse of the panel. The boards are held together with vertical battens which were nailed onto the reverse prior to the painting being executed, the shape of the nail heads are evident in some areas below the surface of the paint. The central board has developed a split, following the grain of the wood. This has happened at an early stage in the paintings history; there appears to be no recent movement in the wood and the panel appears to have acclimatised to the environment. Overall, the panel is in a good, stable condition with no evidence of woodworm damage or rot.

The paint layers are in a good condition. There are localised areas of cracking with some raised edges. Areas of gilding appear worn, possibly through over cleaning in the past. The red background has extensive staining which is likely to be due to a combination of moisture and bat urine, causing a mottled visual effect which is disturbing to the viewer. The aged varnish is affecting the tonal balance and original colours of the composition which are dull. In areas the degraded varnish had flaked away and whiteish haze had formed on the surface. In raking light, changes in the composition are evident, such as a circular motif in the lower half. This may indicate that the design of the Arms was adapted and changed during the painting process but there was no evidence of an earlier Coat of Arms.

**Treatment report**

The reverse of the panel was cleaned with a stiff brush and vacuum to remove a thick build-up of dust and dirt. The black painted element forming the frame was cleaned with a dilute solution of ammonia to remove ingrained dirt and grime. The top edge of the frame had a thick layer of dirt. This was softened using a poultice of Laponite, 7% in deionised water, before carefully scraping off the dirt with a scalpel. The final layer in contact with the paint layer below was cleared with ammonia solution on a cotton swab.

The paint surface was cleaned with a 2% solution of sodium tri-polyphosphate, applied with a cotton swab and cleared with deionised water. Cleaning removed a thick layer of grey dirt.

Tests were undertaken to find a safe solvent solution with which to remove the varnish layer. The varnish is probably formed from several layers and was found to be tenacious. Free solvent mixtures did little to solubilise the degraded varnish. A gelled solution of acetone solvent, applied to the surface and left to work for one minute softened the varnish which could then be cleared with acetone. Once the upper layers of varnish were removed, a broken up surface coating was found which remains on the surface. This was found to be insoluble in all solvent and aqueous solutions. It was decided to leave this coating rather than pushing the cleaning further. The gilded areas of the painting were found to be very sensitive to solvent action and in these areas the upper varnish layers were thinned.

Localised areas of lifting paint were consolidated using two different adhesives, Lascaux 4176 and Plextol B500 diluted with water. The adhesive was applied to the raised areas of paint before gentle heat and pressure from a heat-controlled spatula was used, through silicon release paper, to bring the paint back into plane.

Following cleaning, a brush coat of conservation grade varnish was applied to saturate the paint layers, Paraloid B72 (15% in Shellsol A). Areas of loss and some uneven texture were filled with a putty made from chalk and 7% gelatine. Retouching was carried out with Gamblin retouching colours. Retouching sought to reduce the visual impact of the staining in the background by toning the most visually disturbing areas without retouching every single stain. Final spray coats of varnish were applied to even out the surface gloss Laropal A81 (15% in Shellsol A and white spirits). A layer of wax was applied to the frame to saturate the darks and protect it from dirt build up in the future.

### **Conclusion**

The treatment has addressed the aesthetic issues of the painting by removing old varnish layers and toning old staining to present the Royal Arms in a suitable manner. The panel was found to be in a very good, stable condition for its age. The painting was treated according to its condition and conservation requirements with the intention of ensuring the stability and improving the appearance without disguising the age of the painting or ignoring the fact that it has suffered some degree of deterioration in the past.

### Materials used

<i>Gamblin retouching colours</i>	Pigments pre-ground in Laropal A81 (urea aldehyde resin)
<i>Laropal A81</i>	Urea-aldehyde resin
<i>Lascaux 4176</i>	Medium for consolidation, aqueous dispersion of an acrylic copolymer
<i>Laponite RD</i>	Synthetic layered silicate of hydrous sodium lithium magnesium silicate
<i>Microcrystalline wax</i>	A type of wax produced by de-oiling petrolatum, it contains a higher percentage of isoparaffinic (branched) hydrocarbons and naphthenic hydrocarbons than paraffin waxes
<i>Paraloid B72</i>	Ethyl Methacrylate co-polymer acrylic resin
<i>Shellsol A</i>	Solvent naphtha (petroleum) light aromatic
<i>Sodium tri-polyphosphate</i>	Surfactant

### Acetone solvent gel

Acetone 20ml with 0.75g Carbopol EZ 2 added and 10 ml of H<sub>2</sub>O applied slowly as the mixture thickened.

<i>Carbopol EZ 2</i>	Crosslinked polyacrylic acid polymer powder used as a thickener in gels
----------------------	---

PLATES



Plate 1 *Royal Coat of Arms, before treatment*



**Plate 2**      *Royal Coat of Arms*, before treatment, reverse



**Plate 3** Detail of original tool marks on the reverse of the panel



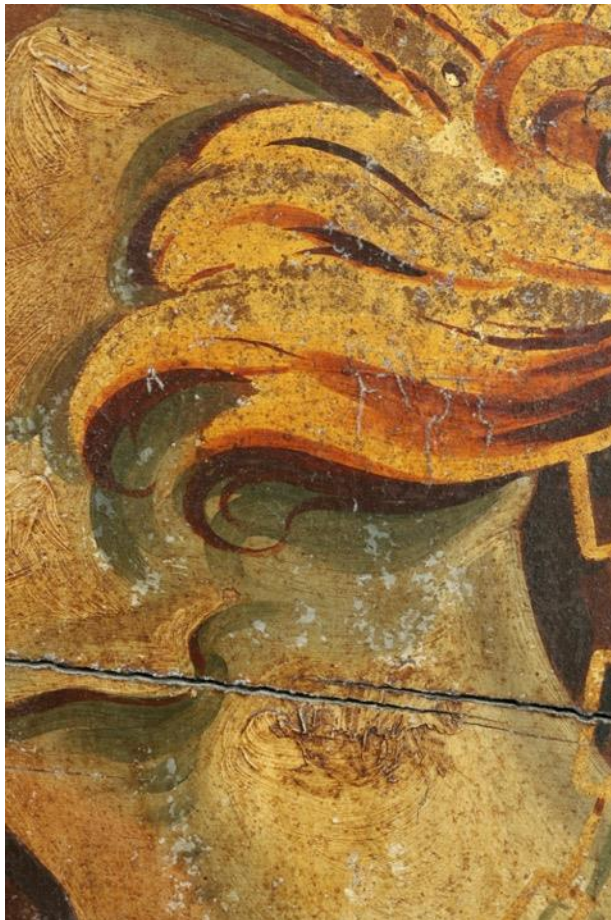
**Plate 4** Detail of thick build up of dirt on the top of the frame



**Plate 5** Detail of thick build up of dirt on the reverse of the panel



**Plate 6** Detail of white haze and mould on the surface of the varnish



**Plate 7** Detail of losses to the varnish and staining underneath the varnish



**Plate 8** Detail of unicorn

**Plate 7** Detail of losses to the varnish and staining underneath the varnish



**Plate 9** During varnish removal



**Plate 10** Detail during varnish removal showing how yellowed the old varnish layers had become



**Plate 11** Detail during varnish removal. The clean area at the top has lost saturation and the staining and degraded coating the background is more apparent



**Plate 12** Detail of fill in small losses before retouching



**Plate 13** Area of staining on the unicorn which could not be cleaned



**Plate 14** Detail of fill in small losses before retouching



**Plate 15** Reverse after cleaning



Plate 16      *Royal Coat of Arms, after treatment*