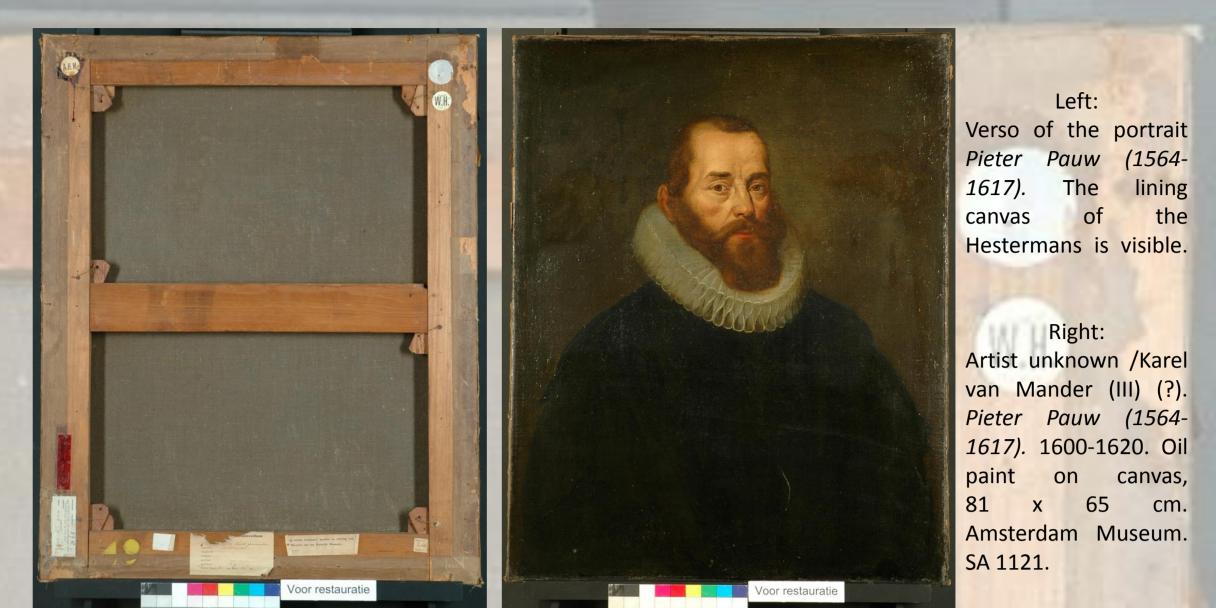
The execution of wax-resin linings by Johannes Albertus Hesterman (1848-1916) and sons. A research into their working method and materials.

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Introduction

Since the introduction of the wax-resin lining method by the Dutch artist and conservator Nicolaas Hopman (1794-1870) and his son Willem Antonij Hopman (1828-1910) in the middle of the nineteenth century, wax-resin linings have been frequently executed on paintings. Although the wax-resin lining was intended as a treatment to reinforce the original canvas and to consolidate the ground and paint layers, the harmful effects of this treatment became clear during the twentieth century and the criticism of wax-resin linings grew stronger.



Johannes Albertus Hesterman and sons

This study concentrates on the wax-resin lining method of the Dutch artist and conservator Johannes Albertus Hesterman (1848-1916) and his sons Frederik Coenraad (1873-1932) and Johannes Albertus Jr (1877-1955). Five seventeenth-century portraits of various doctors from the collection in the Amsterdam Museum, which were lined by the Hestermans in the years 1907-8, are investigated. In addition, reconstructions of wax-resin linings and research into literature and archival sources have been carried out.

An ethical approach

The linings were carefully executed by the Hestermans with attention to the original material. The portraits as well as the linings are in a stable condition. In their careful, and for that time, ethical approach with regard to the lining of paintings (e.g. preserving and restoring the original tacking edges) the Hestermans are not only comparable with the Hopmans, but also with conservators Martin de Wild (1899-1969) and Alois Hauser Jr (1857-1919).



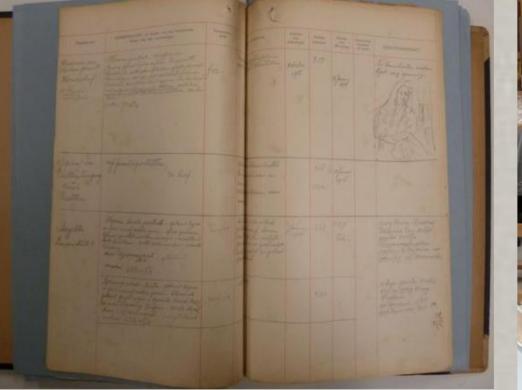
Logo of the private studio of the Hestermans.

A standardised lining method

The five linings that have been studied show similarities in type of stretcher, lining canvas, the wax-resin mixture and in the way the linings are stretched. Py-TMAH-GCMS analysis of the waxresin mixture of the linings has indicated that each mixture consists of beeswax, colophony and Venetian turpentine. Moreover, as a result of automatic thread counts, it can be concluded that the lining canvasses, made of linen and woven in a plain weave, were cut out of one roll of textile. The similarities between the linings seem to indicate a standardised lining method.

Logbook

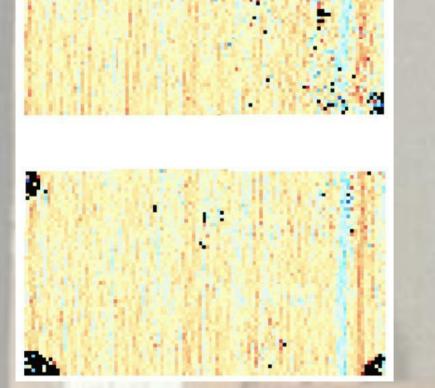
The Hestermans were among the first conservators who recorded their conservation treatments. They kept a logbook in which descriptions can be found of paintings that had been treated in their studio. The study of this book has made it clear that the Hestermans lined paintings as a preventative measure, with the exception of relatively new paintings.



Logbook of the Hestermans – Rijksbureau voor Kunsthistorische Documentatie, Den Haag.



Several reconstructions of wax-resin linings have been carried out to investigate the differences and similarities between the methods used by the Hestermans and W. A. Hopman. The



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This image shows the vertical (presumed warp) thread count deviation map of the lining canvas SA 178. The automatic thread counts are executed by Don H. Johnson (Rice University), C. Richard Johnson (Cornell University) and Robert G. Erdmann (University of Arizona). Py-TMAH-GCMS results of the wax-resin lining mixture of the painting SA 179 show the presence of linseed oil, beeswax, colophony and Venetian turpentine. The chemical analysis were carried out by Katrien Keune (Rijksdienst Cultureel Erfgoed Amsterdam). reconstructions were carried out under the supervision of Michel van de Laar (Rijksmuseum Amsterdam).

Conclusion

This study about the Hestermans gives insight into the materials and techniques used, and thereby into the consequences such techniques and materials may have had on the condition of the paintings. With this knowledge, the presence of different types of damages can be clarified and predictions can be made about the durability of the linings. In the long term, this knowledge will contribute to a more considered selection of compatible materials and methods in future conservation treatments.



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