Dye Analysis Contributes to the Interpretation of the Object’s History:

Investigating Upholstery of the 1841 Horse-Drawn Railway Carriage ‘Hannibal’ at the Technisches Museum Wien

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Introduction

The poster discusses an investigation of the upholstery of a horse-drawn railway carriage known as Hannibal (Fig. 1). The carriage is part of the collection of the Vienna Technical Museum, Austria, and was conserved in 2014 to prepare it for long-term display in the permanent galleries. Conservation of upholstery was prioritized because of its poor condition. A conservation condition survey revealed that the interior upholstery was not original and that the carriage had undergone many renovation campaigns making the identification of the original components and layers of upholstery challenging. The reconstructed history of Hannibal highlights its role as an exhibit at international exhibitions in Vienna prior to becoming part of the museum’s collection. This makes the renovations and reUSES of upholstery potentially significant. The conservation project aimed to document and preserve the carriage in its current form (Ref. 1). To establish the chronology of the upholstery layers, dyes were analysed by ultrahigh pressure liquid chromatography with photo diode array detection (UHPLC-PDA) (Table 1. Ref. 2). The poster presents the most important aspects of this collaborative project.

The carriage

Hannibal is an enclosed coach for four passengers inside, with the outside seats for the driver and passengers covered by fixed hoods. Its biography is complex and tells different stories. Hannibal was built in 1841 for the first horse-drawn railway track (est. 1832) in continental Europe running between Budweis and Linz. The main purpose of that track was to transport salt and passengers. Hannibal was built in 1841 for the first horse-drawn railway track (est. 1832) in continental Europe running between Budweis and Linz. The main purpose of that track was to transport salt and passengers. Hannibal is unique because it is the last surviving carriage of this period. The focus of the upholstery investigation is on the driver’s seat and layers of upholstery challenging. The reconstruction of Hannibal highlights its role as an exhibit at international exhibitions in Vienna during the 19th century and possibly later to the aus-

Earlier upholstery: exterior hood over the driver’s seat

An area of loss in one of the upper corners of the front leather hood allowed the investigation of the earlier upholstery layers (Fig. 2–4). It was assisted by the temporal removal of the current top layer upholstery of the adjacent wall. The investigation revealed that an earlier wall upholstery (consisting of a linen base cloth, curled hair stuffing, blue striped linen stuff-cover, and brown stripe linen top cover, butted with wool tufts), and two types of trimming tapes (green and multi-coloured) were present beneath the current top upholstery layer (Fig. 2). It was not possible to assess the condition of this earlier layer and trimming tapes in full due to time constraints. These fabrics were dyed with natural dyes, such as cochineal, young fustic and natural indigo. In particular the green tape (Fig. 4) was found to contain indigo carmine, discovered by Johann Barth in 1743 and in fashion between 1710 and 1840 (Ref. 3). The weave structures and the colours of the trimming tapes are consistent with the fabric styles of the first half of the 19th century. As all detected dyes were available around 1840, these upholstery layers were part of the museum’s collection. This makes the identification of the original components and layers of upholstery challenging. The reconstruction of Hannibal highlights its role as an exhibit at international exhibitions in Vienna prior to becoming part of the museum’s collection. This makes the renovations and reUSES of upholstery potentially significant. The conservation project aimed to document and preserve the carriage in its current form (Ref. 1). To establish the chronology of the upholstery layers, dyes were analysed by ultrahigh pressure liquid chromatography with photo diode array detection (UHPLC-PDA) (Table 1. Ref. 2). The poster presents the most important aspects of this collaborative project.

The upholstery: interior of the coach

The upholstery of the passenger coach is made from recycled materials (Fig. 5–7) and is of poor crafts- manship. Blue woolcloth, made by piece dyeing method, is used as top cover for walls, ceiling, doors and seat cushions. The wall panels are pre-con-structed and consist of the following layers: recycled pages of financial ledger from the Crown Prince Rudolf Railway (Kronprinz-Rudolf-Bahn, operation 1869–1884), adhe-

References

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