

# Sleigh Vänersborgs Museum Konserveringsrapport



Robert Donald  
Studio Västsvensk Konservering  
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# Sleigh

Konserveringsrapport

## Tekniska och administrativa uppgifter

**Uppdragsgivare** Ann-Charlott Öberg  
Ann-charlott.oberg@vgregion.se  
0521 – 57 26 89

**Projektansvarig SVK** Robert Donald

**Övriga utförare** Carl Brädde  
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**Grafisk form och layout** Studio Västsvensk Konservering

**Omslagsbild** Foto Studio Västsvensk Konservering.

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**Förvaltningen för kulturutveckling**

**Studio Västsvensk Konservering**

Gamlestadsvägen 2–4 Hus B2

415 02 Göteborg

Telefon 010-441 43 44

[www.vastarvet.se](http://www.vastarvet.se), [www.vastarvet.se/konservering](http://www.vastarvet.se/konservering)

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# Konserveringsrapport

## Föremål

Sleigh conserved for Vänersborgs Museum storage by SVK Metals intern with the help of SVK wood conservator.


## Teknisk beskrivning

Structure made from soft wood such as spruce or pine with likely some hardwood pieces such as birch around the seat and likely oak for the runners. Wooden structure held together in some areas by wood dowels but mostly by wrought iron rivets, nails and augmentations which in some areas are painted to match the design of the wood. Small storage compartment lid operates on a vegetable tanned, calf leather hinge. The red, yellow and black paint appears stable and is not very friable meaning that it is not flaking paint but likely instead a paint made from metal colourants and linseed oil.

## Kulturhistorisk kommentar

Riding sleigh from Skövde owned by Anton L. Ahlgren prior to April 1912 when it was purchased by Thure Langer for Vänersborgs museum.

## Befintligt skick/skadeorsak

The sleigh can be divided into four materials, wood, iron, leather and paint. The wooden structure has been damaged and repaired throughout its functional use with metal fixtures and glue, the largest repair appears to be on the front of the runners where possibly the sleigh once collided with an object causing the damage. Although this would indicate that the wooden structure is poor and in need of stabilising, the structure actually appears sound given that this is no longer a functional object. As for the surface condition, the wood is covered with dust, dirt and specks of mould which are likely feeding off the dust. 

The wrought iron pieces are in a fair structural condition although some of the rivets have some weeping corrosion present caused by salt contamination and a fluctuating humidity. Additionally many of the parts are dented, likely from the sleighs functional use. Surface wise the iron parts are just as soiled as the rest of the object, covered with dust and dirt which can accelerate corrosion processes by holding moisture close to the metal.

The leather hinges are desiccated and brittle and likely deteriorating from red rot. They are also very dusty which will be further accelerating their structural deterioration.

The paint appears to have worn away in many areas due to abrasion during its use, for instance where the riders feet would rest the paint has deteriorated. Apart from these areas the remaining paint appears to be stable.

## Åtgärder

1. Treatment began with thorough photo documentation of the sleighs condition aswell as use of UV light to help identify the presence of any varnish, no varnish was identified however.
2. Next cleaning of the heavy surface dirt, dust and areas of mould was carried out using a brush and a HEPA vacuum, including careful cleaning of the leather hinges.
3. A loose piece from the rear of the sleigh was removed and a fresh cut was made to reveal the grain in a discrete area. This was studied under a magnifying glass giving me experience of identifying wood.





(Attempting to identify the wood)

4. The sleigh was now cleaned with smoke sponges lifting much of the more ingrained dirt and dust.
5. Ammonium citrate 3% in water was then tested for cleaning of the paint. The paint appeared slightly soluble in this however and cleaning using saliva was instead used as it did not deteriorate the paint whilst further removing any ingrained dirt not removed by the smoke sponges.
6. Next the metal areas were cleaned using a brush with a scalpel used to flick off areas of weeping.



(A rivet before and after mechanical removal of the weeping corrosion)

7. PVAC in acetone was then used to consolidate and stabilise areas where the wood was loose or such as with the piece that had been removed to totally re-adhere a piece back to the sleigh. The breakages were first cleaned with a brush and a compressed air gun. Then PVAC was applied and the parts were placed into position on the sleigh where they were clamped for more than 3 hours.  




(Clamping of a loose piece whilst it re-adheres)

8. Water colours were next used to darken areas where the exposed wood was very bright and distracting and in the case for the later green wood areas now noticeable after cleaning these were colour matched to the rest of the sleighs yellow and black colours.



(Colour matching of some of the green wood areas)

9. Some of the dowels which had over time wiggled out of their holes were hammered back in leaving them flush with the rest of the sleigh as they would have originally been.
10. For some areas of loss new dowels or pieces were made from balsa wood, placed into position, trimmed with a carving tool and then adhered with PVAC applied via a syringe, these pieces were then also re-touched using water colour to colour match them to the rest of the sleigh. 



(An area of loss filled with a replacement piece made from balsa wood)

11. An area of loss on the top of the sleigh was also filled with balsa wood, however this piece was also gap filled using fisklimskitt and then colour matched with water colours.



(The balsa wood fill and the fill after application of fisklimskitt and retouching)

12. One of the wooden sides which over time had warped and now no longer fit in its place was trimmed down and a small nail was used to ensure it stayed in place.
13. The metal areas were cleaned using acetone removing any of the lifted corrosion and dirt left after cleaning with the scalpel and brush.
14. Finally linseed oil, linseed oil with Aerosil 200, Regalrez and Regalrez with Aerosil 200 where tested as lacquers for the metal parts in a discrete area at the bottom of the sleigh. Linseed oil on its own gave the cleanest and least distracting finish after its long drying time so this was selected and all the metal areas of the sleigh were lacquered using it completing the treatment of the sleigh.



(Linseed oil lacquer freshly applied to the metal areas, after drying it becomes much less shiny)

Syfte/målsättning

Clean and stabilise.