

# RESTORATION OF A WORLD WAR II GERMAN ARMY BACKPACK



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## ABOUT

Keywords: backpack, fabric, leather, metal, corrosion

The contemporary use of a backpack is quite obvious. It can be used as a school bag, for sport or recreation, or even as a design accessory. It has to be functional and modern. Even though the term "backpack" only appeared in printed form in the early 20th century, the item's history stretches further back into the past. The backpack is also an integral component of military equipment. The 20th century, with its two world wars, facilitated the development of the backpack as a functional and design item for civilian and military needs. A vast spectrum of materials is used in their manufacture – various organic, inorganic, artificial and synthetic products. Often items that have been used for military uses are particularly dirty, worn or deformed by the time they reach the museum collection.

## CONDITION BEFORE RESTORATION

A backpack for a German Air Force soldier's equipment, manufactured in 1941 at the *Kofferfabrik Johann Schaeuble* in Kuppenheim, arrived at the Latvian War Museum in 2018. It had been acquired in Latvia and was most likely also used in this region. It was made from tarpaulin - type cotton fabric, the belts from leather, and the accessories from aluminium and iron. Individual iron details had been painted, but the paint had worn off and had only been preserved in a fragmented way. Microscopic research revealed that the fabric of the bag was worn out in parts, losing its original colour, (Fig. 1 - 3) while the thread used for sewing had a special coating which had been preserved in a fragmented way ( Fig.4). Deformations, holes, patching, dirt, stains, layers of corrosion and corrosion dust - all of this is descriptive of the item prior to its restoration (Fig.5 - 7). The variety of the materials in the item made the cleaning process complicated (Fig.8 - 10).



Fig. 1. Backpack fabric after cleaning, microscopic magnification 10x, Photo: Indra Saulesleja



Fig. 2. The inside fabric of the backpack after cleaning, microscopic magnification 20x, Photo: Indra Saulesleja



Fig. 3. Backpack leather detail after cleaning, microscopic magnification 20x, Photo: Indra Saulesleja



Fig. 4. Backpack (front) before restoration, Photo: Valters Lācis



Fig. 5. Backpack (back) before restoration, Photo: Valters Lācis



Fig. 6. Backpack fragment before restoration, Photo: Valters Lācis



Fig. 7. The corner of the backpack before restoration, Photo: Valters Lācis



Fig. 8. Backpack (back) before restoration, Photo: Valters Lācis



Fig. 9. Backpack fragment after restoration, Photo: Valters Lācis

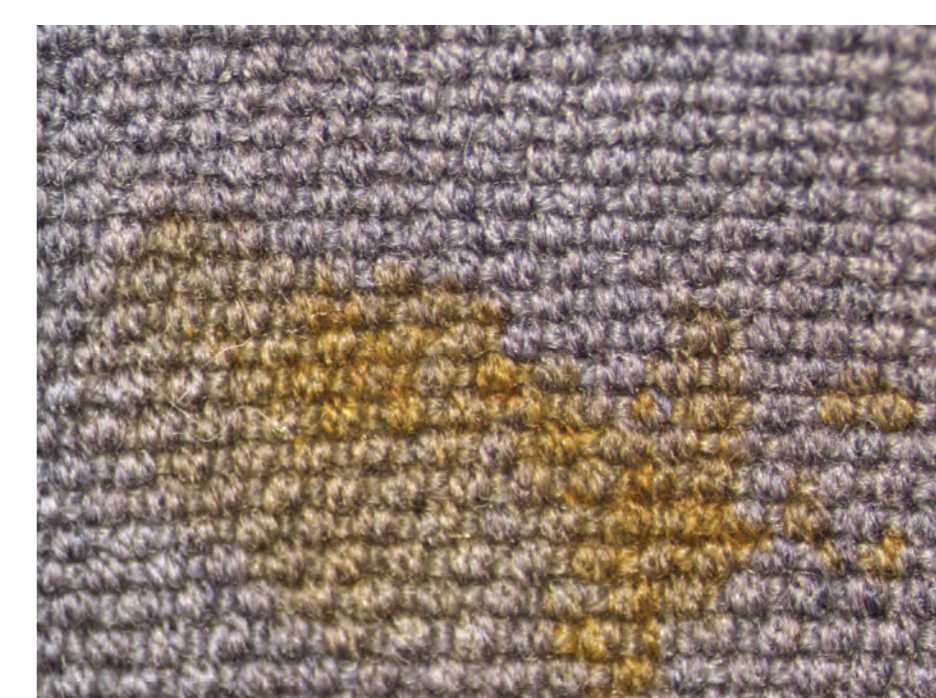


Fig. 10. Backpack surface fabric after cleaning, microscopic magnification 20x, Photo: Indra Saulesleja



Fig. 11. Backpack (front) after restoration, Photo: Valters Lācis



Fig. 12. Backpack (side edge) after restoration, Photo: Valters Lācis



Fig. 13. Backpack (side edge) after restoration, Photo: Valters Lācis



Fig. 14. Backpack (back) after restoration, Photo: Valters Lācis

## RESTORATION

All of the bag's materials were dusted. Corrosion products were cleaned mechanically. The textile materials were wet-cleaned. Leather details were cleaned in a dry and wet way. Deformations in the textile and leather materials were repaired with a drying process. After wet cleaning and the repair of deformations, metal parts were again mechanically cleaned and covered with microcrystalline wax.

Patching that had been undertaken during the bag's use was preserved. Tears and holes in the textile material were secured and painted like fabric fragments. Leather details which had come off were sewn back.

Even though it was not possible to clean up many of the rust stains, and due to the restricted access, also all of the corrosion products from the metal materials, all of the bag's materials were cleaned and secured as much as possible, and the item has regained its visual attractiveness (Fig. 11 - 14).