

SWORDS AND EDGED WEAPONS CONSERVATION SURVEY AND STORAGE MOUNT PROJECT

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Introduction

The Minnesota Historical Society holds approximately 500 swords, edged weapons and accessories ranging in time from 800 C.E. (A.D.) through the 20th century. The collection is strong in Civil War, Spanish-American War, and World War I swords and bayonets. Ceremonial swords represent various fraternal orders. The collection also includes scabbards, leather covers, leather belts, and wooden boxes. The earliest object is a Viking sword.

When the Society moved into the Minnesota History Center in 1992, these objects were placed in drawers in three Delta Design cabinets in the Collections storage area. The weapons were sorted by general type, along with associated scabbards, belts, and scabbard covers. While most of the bayonets and daggers could be placed flat in the drawers and stored safely, many of the sabers and other weapons with rounded hand-guards would move when the drawers were opened and closed which could cause damage to them (See Figures 1 and 2). Many of the leather components were in poor and unstable condition and were not properly supported (See Figures 9 and 10).



Figure 1. Typical saber drawer before the survey and re-housing project.



Figure 2. Detail of sabers and scabbards as found in drawers.



Figure 9. Detail of leather scabbard showing red-rot condition. This condition will require further treatment and was classed as a Priority 1 object.



Figure 10. Leather scabbard showing typical break and instability near tip. An individual treatment support was made for this object.

Project

Over the past two years, the Conservation Unit has been developing and implementing the Society's Long Range Plan in cooperation with the various Society curators and other staff. The Sword project is one of the specific action items in the overall plan, and was completed with the involvement of Matt Anderson, Collections Curator, and Dan Cagley, Collections Manager. The Collections Manager oversaw access and movement of the collection from storage to the Objects Conservation lab, where the actual surveying and mount making took place. Student Volunteer Caitlin Whaley volunteered over 300 hours to this project.

The goals and intended products of the project were the following.

- 1) Survey and assess the current condition of each object and associated components.
- 2) Update the catalog records with new location and condition information.
- 3) Create Conservation records for each object and accessory.
- 4) Create a treatment priority list and quantify the number of objects in each category and the estimated treatment hours. This information would be used as a management tool for a future treatment project.
- 5) Group objects by type and make the most efficient use of the available drawer and cabinet space.
- 6) Create mounts in the drawers to properly support the objects.
- 7) Compile the data to be used for future conservation treatment projects.

Methods and Materials

Two to three drawers at a time were moved to the Objects Lab for surveying and mount-making. The survey consisted of visually assessing the condition of each object and checking for structural instabilities. The observations were written down on drawer lists for later entry into

the Society's Collections Management System (KEMu). The catalog information in CMS was often consulted to help confirm the identities of various component materials

The objects were laid out in the drawers to maximize the efficient use of space (see Figures 3,4, and 5). Once the objects were spaced properly to fit without touching each other, Dow Ethafoam 220 polyethylene foam planking was cut into blocks to support the swords and scabbards perpendicular to their long axes. Three supports were required for the sabers.



Figure 3. Typical saber drawer after survey and re-housing showing the Ethafoam 220 supports.



Figure 4. Detail of the Ethafoam 220 support in the middle of the drawer.



Figure 5. Detail showing hilt supports and the alternation of the objects within the drawer.

Shorter weapons and fragile leather components were supported with customized Ethafoam holders (See Figures 6,7, and 8). The Ethafoam was cut with knives and spatulas modified for cutting polyethylene foam materials. The cut surfaces were smoothed and finished using a tacking iron and silicone-treated polyester film. Linen ribbon was used when needed to secure objects with loose parts to mounts.



Figure 6. Overall view of a smaller object requiring an individual mount.



Figure 7. Custom Ethafoam mount for the dagger handle.



Figure 8. Detail of supports within the drawer for smaller objects.

The average drawer now accommodates eight sabers and scabbards. The fabric and buckskin sword cases were placed together in separate drawers so they are no longer in contact with metal.

Results and Summary

Five hundred and eight objects were evaluated for condition, and re-housed during this project. Those objects requiring treatment were put in three priority categories, and the hours for future treatment were estimated.

Three 2' X 8' X 2" Ethafoam planks were used to provide storage mounts in 22 drawers.

Using an organized approach, a significant collection of the Society was documented and re-housed. A moderate investment in time and a small investment in materials went a long way to mitigate the risk of physical damage to these objects and to insure their long-term preservation.

Access for study and exhibits or loans was greatly improved and the curator was pleased with the results of the project.

References

Schlichting, Carl. 1994. Working with Polyethylene Foam and Fluted Plastic Sheet. Technical Bulletin No. 14. Canadian Conservation Institute, Ottawa, Canada.

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