



MINNESOTA HISTORICAL SOCIETY

## **Replication of an 1814 Peace Medal**

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In 2005, the Grand Portage National Monument, National Park Service, contracted with the Exhibits Department of the Minnesota Historical Society to design the exhibits for the new Visitor Center in Grand Marais, MN. As part of the new exhibits, permission was given to replicate one of the Peace Medals owned by the Grand Portage Band of Lake Superior Chippewa and to display the replica. This article describes the replication process.

The item chosen for this project was a silver medal of King George III that was presented to the Chippewa Indians by the British. The medal was in the Society's collections and was repatriated to the Grand Portage Band in October 2000. It is now on loan to the Society. The medal is dated 1814. The obverse has a bust of George II facing right. He is laureated and is wearing the badge of St. George and the Mantle and Robe of the Royal Order of the Garter. The inscription is "Georgious II Dei Gratia Britanniarum Rex, F:D:". On the reverse are the Royal arms of the period and supporters in high relief. The quarterings of the shield show the Arms of England in the first and fourth, Scotland in the second, and Ireland in the third, while the Arms of Hanover, with a crown, are centered on the shield. The legend reads, "Honi Soit Qui Mal y Pense". Inscribed on a ribbon below the shield is "Dieu Et Mon Droit".

The condition of the medal is excellent. It was cleaned and coated with an acrylic lacquer in 2003 and remained stable. The coating serves as a mold release and barrier during the molding process. The silicone room temperature vulcanizing rubber (RTV) does not interact with metal surfaces as does latex. Latex contains ammonia that is added to keep it soluble, and the ammonia can interact with many object materials during the mold making process. The RTV products are inert, much more stable over time, and give better casting detail, and thus were chosen for use in this project.

The peace medal was prepared for the mold pour and was placed in a stainless steel pan (Figure 1). A dam of Klean Klay was prepared to contain the liquid RTV (Figure 2). The RTV mold-making compound was mixed in a 10:1 ratio of rubber to activator and poured over the medal (Figure 3). The mold was allowed to cure for 24 hours, and then removed from the medal (Figure 4). This process was repeated for the other side of the medal in order to create a separate cast of each side of the item. The medal was wiped down and the loan number applied on a paper label. The item was then returned to storage. The two-part polyurethane casting resin was mixed and poured into each mold (Figure 6). The casts achieved final strength in approximately 2 hours. The flashing (i.e. the excess casting material around the edges of the replica) was ground off with a belt sander. The front and back of each cast was sprayed with Testor's Model-Master Sterling Silver solvent-based paint in a fume hood. Several coats were applied to

ensure full coverage of the surfaces. The hanging loop was drilled out with a Foredom rotary drill to give the loop a more realistic appearance. A hole in the back of each replica was drilled for the attachment stud. The stud consisted of a 2 cm. long brass wire piece. The wires were attached to the hole with 1:1 Paraloid B-72 in acetone. Once the paint was completely dry, the surfaces were finished with a coating of Renaissance microcrystalline wax tinted with lamp black pigment (Figure 7). Two replicas were made of each side of the medal and are ready for exhibit. Labels with reference numbers were placed on the reverse surfaces (Figure 8). The molds and rejected casts were kept in storage with the original item for future use.

This process produces light-weight, high quality replicas with a realistic appearance for a minimal cost.



Figure 1: The peace medal is set in a steel pan on silicone release film.



Figure 2: A dam of Klean Klay modeling clay is built around the Medal to contain the molding compound.



Figure 3: The two components of the silicone RTV mold compound are mixed in a disposable plastic beaker prior to pouring the compound over the Medal.



Figure 4: The finished mold of the obverse of the Peace Medal. Once the mold cures for 24-48 hours, it can be used to create casts.



Figure 5: General view of the molding and casting supplies. The polyurethane 2-part casting compound is in the two containers in the center.

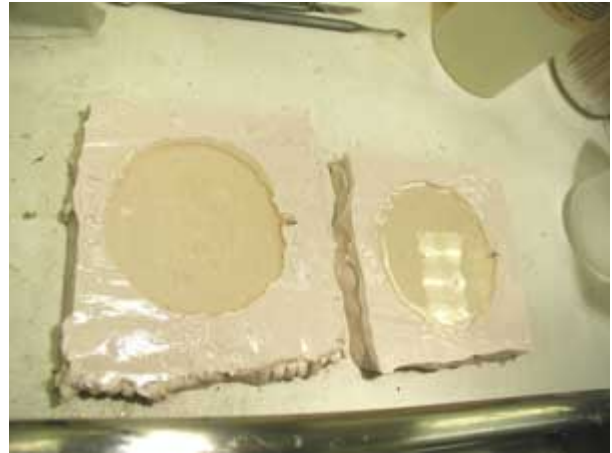


Figure 6: The casting compound in the liquid state after being poured into the molds.



Figure 7: The cured casts showing the stages of completion. Left: plain cast. Center: Cast painted with model-grade spray paint. Right: painted cast toned with pigment-tinted microcrystalline wax.



Figure 8: The finished set of casts. Brass mounting studs were attached to the reverse surfaces near the top margin of each cast.

Photo credits:

Figures 1-2, 5-8: Paul S. Storch

Figures 3-4: Marcia Anderson

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