TREATMENT OF THE U.S. HOUSE OF REPRESENTATIVES' MACE: AN OBJECT IN USE

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The Mace and its History

The U.S. House of Representative's mace is one of the oldest and most cherished artifacts of the House. In 1789, the First Congress of the United States adopted a resolution establishing the office of the Sergeant at Arms and the mace as a symbol of that office. On the recent occasion of the 150th anniversary of the present mace, Representative Robert Michel addressed the House with the following:

> It sometimes seems that in the House nothing is more ephemeral than permanency. There is a constant shift in allegiance in which Members form temporary alliances on new bills, new Members are elected, and old Members leave in one way or another.
>
> But amidst the swirl of events, amidst the tumult and change, we can look to the right of the Speaker's chair and see the mace of the House of Representatives.
>
> It reminds us of the continuity, the history, and the permanence of the House, yes, and of our Republic. If any of us ever gets the idea that he or she is irreplaceable, the mace tells us by its silent but eloquent presence that what matters is not the individual but the institution itself.
>
> The mace and the authority it symbolizes is a striking and visible reminder of a great and invisible power, and that is the power of a free people to choose their own Representatives.
>
> A symbol cannot command respect, but it can remind us by its very presence of ideas and realities that deserve our respect. That is what the mace does, every day we are in session.[1]

The form and function of the House of Representatives' mace are rooted in traditions of ancient Rome and the British Parliament. In the Roman Republic the mace or "fasces," consisting of an ax surrounded by rods, represented the authority of the two elected consuls. It was also used by magistrates to restore peace in provincial courts of justice, as well as for carrying out corporal penalties: the rods were used for scourging and the ax for beheading. The association of the mace with a legislative chamber comes to the United States from Great Britain. Originally, the British House of Commons was allowed to meet only when the King was present. Eventually, the King sent his sword or mace to the House as a symbol of his presence. Royal bodyguards in England, called Sergeants at Arms, were assigned to the House of Commons, and the mace became the emblem of that office. By the end of the seventeenth

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century it had become customary for the mace to be brought into the chamber before the House of Commons could be considered in session.[2]

In the U.S. House of Representatives three different maces have been used since 1789. The first was described as a representation of the Roman fasces made of ebony rods bound transversely with silver bands. Each rod was tipped with a silver spearhead and the rods were surmounted by a globe of silver and a massive silver eagle.[3] This mace was destroyed when British soldiers burned the Capitol in August 1814. A replacement was hastily constructed of pine and used for the next 27 years. In 1841, the Speaker of the House ordered the third mace to be made in a style similar to the one destroyed by the 1814 fire. The commission was carried out by William Adams, a New York silversmith (Figure 1). Currently in use today, it is composed of 13 ebony rods arranged around a core and bound by four intertwined and riveted silver ribbons. The rods are held at the top and bottom within silver repoussé bands, and the top is surmounted by a silver orb and a silver eagle with outstretched wings. Engraved on the orb are the continents, oceans, major rivers, the Equator, and the Tropics, with the Western Hemisphere at the front. At some point after its original construction, a silver-plated brass tenon was soldered to the base; it is used for holding the mace upright during display.

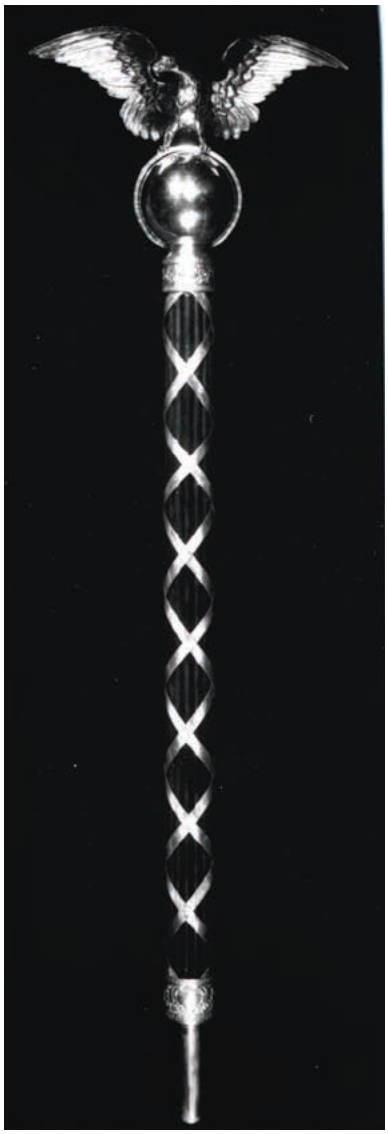

Figure 1. The mace of the House of Representatives after treatment in 1991.
(Photo courtesy Smithsonian Institution, Smithsonian Center for Materials Research and Education.)

The Mace in Use

The mace receives a great deal of handling. As the symbol of authority of the Sergeant at Arms, who maintains order in the House, it must be present in the House chamber when that body is in session. On such days it is taken from the Sergeant at Arms' office, where it otherwise resides, to the House chamber. The mace is normally displayed to the right of the Speaker's chair, by insertion of its tenon into a socketed stone pedestal. When the House resolves into the Committee of the Whole, the mace is moved to a lower pedestal. In addition, the mace may be removed during a session and carried by the Sergeant at Arms to enforce order on the floor. There have been at least a half dozen documented incidents of disorder, including one in 1877 which is illustrated in Figure 2. Another occurred in 1880 when the House was meeting as the Committee of the Whole to discuss a funding bill. The following heated exchange broke out between James B. Weaver and William A.J. Sparks, the Representatives from Iowa and Illinois respectively:

> Mr. WEAVER. I denounce the gentleman personally as a liar on the floor of this House.
> Mr. SPARKS. You are a scoundrel and a villain and a liar. [Mr. WEAVER then approached Mr. SPARKS in a menacing attitude.] If you get within my reach I will hit you.[4]

Figure 2. The mace being used to restore order on the House floor, January 31, 1877 [from the cover of *Frank Leslie's Illustrated Newspaper* 43 (Feb. 24, 1877)].

Members of the committee then rose to their feet, some interposing themselves between the parties. The Speaker took the chair and directed the Sergeant at Arms to move about the floor of the House with the mace. Thus order was restored. Additional handling occurs when the mace is carried during presidential inaugural ceremonies and when House members have photographs taken with their constituents holding the mace.

Conservation of the Mace

The focus of this paper is to present the conservation problems of the mace and our solutions to them in the context of an object in use.[5] There are two principal ongoing problems requiring conservation attention: abrasion from handling, especially of the silver components, and inherent structural instability, exacerbated by handling. It should also be noted that there are a number of conditions which limit treatment choices. Despite air conditioning at the U.S. Capitol, pollutants are not filtered from the air, and there are wide variations in temperature and relative humidity. Gloves are not worn when the mace is handled, a practice that is unlikely to change. Finally, there were extreme scheduling limitations for the treatment. The mace cannot be out of the Capitol Building when Congress is in session, so that it could be removed for treatment only for the duration of the summer congressional recess. Consequently, the object had to be transported to CAL, examined, the treatment proposed and executed, and the mace returned to the Capitol in a period of just one month.

1) The Silver Components

The silver surfaces exhibit clear evidence of wear. There has been considerable loss of detail in the engraving on the orb and eagle, most likely due to handling and repeated polishing. During two previous treatments of the mace carried out at the Smithsonian in 1974 and 1984, some protection against tarnishing and handling was conferred by cellulose nitrate lacquers. After seven years the most recently applied coating had become yellow and crazed and had been worn away in areas. These areas exhibited the dark gray tarnish typical of silver.

In order to improve the mace's appearance for a ceremony commemorating its 150th anniversary, old coatings and tarnish were removed, and a new coating was applied to provide future protection. After disassembly, old lacquer was removed from the silver components with lacquer thinner and acetone. Tarnish was removed with precipitated chalk made into a slurry with ethanol. Heavier tarnish was cleaned locally with a "silver dip" solution[6] or a microalumina slurry in ethanol followed by thorough rinsing and gentle polishing with a precipitated chalk slurry. Because of its abrasion resistance, a cellulose nitrate-based coating (Agateen Lacquer No. 32) was chosen again. It was thinned to working consistency, brush applied to the inner surfaces, and spray applied to exterior surfaces. Considering the amount of handling the mace receives and the deteriorated state of the previous coating, the lacquer should be replaced well before seven years have elapsed.

2) The Structure

Another reason for treatment of the mace at this time was that staff at the Capitol had noticed some "wobbliness," especially where the rods insert into the lower repoussé band. At first it was theorized that this was due to dimensional changes in the wood corresponding to changes in relative humidity. However, the dimensional stability of ebony precludes such an explanation.

Close examination in the laboratory after disassembly revealed only minimal attachment of the structural members to each other, allowing considerable movement. Only four screws are used to secure

each silver repoussé band to the central core, and attachment of the ebony rods is negligible. In a few places the screws which secure the silver bands to the core do pass through individual rods; however, the rods are split and chipped in these areas, rendering the attachments ineffectual. As a group, the rods are bound reasonably tightly by the silver bands, but individual rods can be shifted slightly.

In addition to insufficient attachment of the silver ribbons to other members, their spiral configuration was also found to permit movement. The ribbons could be extended or compressed somewhat: in the extended position the rods were held tightly, while in the compressed position the rods were slightly loose. At the bottom the ribbons are not attached directly to the repoussé band, although there is some evidence that they were originally. Instead, the ribbons are bolted to a crosspiece which passes through a slot in the central core. Moreover, the large size of the slot allowed movement of the crosspiece and thus the ribbons. At the top, the ribbons are only held in place by two of the screws which pass through the repoussé band into the central core.

Because the components are secured in so few places, stress is placed on the points of attachment, particularly when the mace is being set in the pedestal. A tear near the top of one silver ribbon and fracturing of the ebony rods near the screwholes are most likely products of such stress.

During the 1974 treatment at the Smithsonian, in an attempt to correct the structural problems inherent in the design, a wooden core (probably not original)[7] was replaced with a naval bronze tube weighing 4 pounds, 3 ounces. The ebony rods were also notched at top and bottom and bound with wire.

Because the weight of the bronze core seemed to contribute to stresses placed on the mace, especially during handling, we decided to replace it with a lighter wooden core. This was made of three strips of ash, laminated to mitigate dimensional changes using hot hide glue, and then turned on a lathe to the appropriate diameter. The new ash core weighs 1 pound, 6 ounces, approximately one-third the weight of the previous metal core. A slot for a new crosspiece was drilled through the core. It is smaller in size than that made for the bronze tube in order to minimize movement of the crosspiece and thus of the silver ribbons. A thin sheet of polyethylene foam was painted black with acrylic paints and affixed to the core with acrylic adhesive. This was done to fill some of the irregularities between the core and the rods and to minimize movement of the rods. In addition, the rods were bound at the notches with fine steel tubing, cushioned with Teflon[R] tape.

To further limit movement at the base of the reassembled mace, Dow Corning 3110 RTV Silicone Rubber, pigmented with carbon black, was injected into the lower band to fill the interstices between metal and wooden components. Testing of the silicone rubber with silver coupons in a modified Oddy test showed no adverse effect.[8] The silicone rubber fill will only be effective until future disassembly of the base. It should separate cleanly from the wood and silver surfaces but will necessarily be damaged in the process. New fill material could subsequently be introduced if deemed appropriate.

Conclusion

The choices made for the treatment of the mace were based on the needs of an object in use. Other treatment decisions might have been made were it not in use. Furthermore, because of the complex nature of the object, the solutions that were devised were a product of collaboration and considerable deliberation. Although the results are satisfactory thus far, we take this opportunity to encourage discussion of other possible responses to the challenges of this object.

1. *Congressional Record*, 102nd Congress, 2nd Session, 28 January 1992, p. H60.

2. "The Mace of the House of Representatives of the United States," n.d., pp. 3-4.

3. Hinds, Asher C., *Hinds Precedents of the House of Reyresentatives of the United States*. Washington, DC: Government Printing Office, 1907, volume 2, section 1346.

4. *Congressional Record*, 46th Congress, 3rd Session, 21 December 1880, p. 311.

5. Smithsonian examination and treatment records are on file at the Conservation Analytical Laboratory as CAL# 1917.

6. "Silver dip" solution (percentages by weight):

8.0% thiourea
3.5% H_2SO_4 (98%)
88.0% deionized water
0.5% Micro R (lab cleaner/surfactant)

7. The wooden core resembled a length of broomstick and the makeshift quality of workmanship appeared more like that of a government carpenters' shop than of a craftsman. Martha Goodway, private communication.

8. Oddy, W.A., "An unsuspected danger in display," *Museum Journal* 73 (1973): 27 -28.