Transcript of "How to Make and Use a Precipitated Calcium Carbonate Silver Polish"

[Canadian Heritage signature]

[Canadian Conservation Institute signature]

Narrator: “How to Make and Use a Precipitated Calcium Carbonate Silver Polish.”

[Image on screen: badly silver tarnished items]

Narrator: “This video demonstrates how to prepare and use silver polish made with precipitated calcium carbonate.

This polish is considered mild because it does not remove too much of the silver under the tarnish.

Using this silver polish avoids using commercial polishes, which may contain unknown abrasives or additives that are harmful to the object.

The decisions to remove tarnish from silver, on how much tarnish to remove and on the final appearance should be made jointly by a conservator and a curator.”

[Image on screen: all equipment and materials required]

Narrator: “To get started, here is a list of equipment and materials required to make and use the polish.

Tarnished silver; disposable nitrile gloves; precipitated calcium carbonate; water; petri dish to hold small quantities of the polish; spatula; lint-free cotton pads for polishing; soft natural fibre brush; plastic wrap; acrylic sheet such as Plexiglas; mild detergent such as Orvus or Ivory dish soap and clean cotton flannel cloths for drying and for removing residual abrasive powder.

To make a small amount of silver polish for testing or for polishing a single object: use a spatula to transfer some precipitated calcium carbonate to a Petri dish.

Add water and stir with the spatula to form a cream-like paste.

We recommend that you test a batch of precipitated calcium carbonate that has not been used before.

To do this, use a new piece of acrylic sheet and remove the protective plastic film.

Cut small squares of a cotton pad.

Wipe a small part of a cotton pad through the carbonate paste.

Rub the cotton and paste back and forth several times over a distance of a few centimetres on the acrylic.

Examine the acrylic for scratches.

With clear acrylic, scratches are easier to see if black cardboard is placed behind the acrylic sheet.

Hold the acrylic at different angles to the light to find the best angle to see the scratches.

If there are scratches, label the calcium carbonate as unsuitable for polishing silver and find a different source of calcium carbonate.

We can now get started on polishing tarnished silver.

Here's how to do that. Prepare a suitable workspace, including a padded work surface.

Put on a pair of disposable Nitrile gloves before handling silver or chemicals.

Remove dust with a soft natural fibre brush. Brush lightly.

Ensure the brush is clean, as dust particles can scratch the silver.

If the brush has a metal ferrule, cover the ferrule with tape so the metal cannot scratch the silver.

Use plastic wrap to cover any materials that should not be exposed to water or solvents (bone, wood or ivory, for example).

Do not allow water to get into hollow handles or other hollow parts of an object.

Clean the silver with a few drops of mild detergent and water to remove any dirt and grease.

Dry well.

As was done in the test on acrylic, wipe a cotton pad through the carbonate paste.

Polish the silver surface with the cotton pad by gently rubbing the surface.

Use a circular motion where possible.

Replace the cotton pad when it is soiled.

Always use a clean pad to wipe through the carbonate paste.

Stop often to wipe off, rinse and inspect the area being polished.

Do not assume that the object needs more polishing just because a clean pad turns dark with polishing.

Even after all the tarnish has been removed, the pad will still turn dark as the abrasive removes silver from the surface.

Do not spend too much time polishing any one area.

It is better to go over the entire object several times rather than polish one area too much at once.

If one area is polished too much, the whole object may have to be polished to the same level.

Once polishing is done, rinse the surface to remove fine particles of precipitated calcium carbonate.

If possible, rinse under running water; otherwise use wet cotton flannel or cotton swabs.

Take care not to scratch the silver with cotton swabs made with wooden applicator sticks as wood may scratch silver.

Dry the object well with soft absorbent cloths.

Make sure there is no water left in crevices."

[Image on screen: before and after polishing, side by side comparisons]

Narrator: "Don't polish too much.

This can remove the details from a silver object, or the silver in a plated object, revealing the underlying metal.

Shown here are examples of damage to silver-plated objects caused by excessive polishing:

Silver-plated copper tray where the reddish colour of the underlying copper is visible.

Silver-plated brass goblet where the golden yellow colour typical of brass can be seen.

Silver-plated lead candlestick where the dull gray areas are lead.

Silver-plated pot for tea or coffee made of nickel silver, where some of the silver plating has worn off.

Nickel silver is an alloy of mainly copper with nickel and zinc but no silver."

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