K1775 Condition Report

Conservation Started: 6/6/11
Conservation Finished: 9/6/11
Conservator: Deborah Magnoler
Time Taken: 4hrs
Including digital photography, report, conservation and packing.

Dimensions: approx (L) 20mm (W)10 mm
Weight before: 0.50g
Weight after: 0.46g
Catalogue number: 598

Digital photography:
Taken with a Nikon Coolpix 4500 digital camera, under daylight or bulbs and Leica M60 microscope with a Leica IC80 camera and HD screen. Illumination: fibre optic lights, 0.63-4x magnification. Taken before, during and after.
Annotation on any of the storage bags or boxes: none noted

Description: Visual and microscopic examination using Meiji stereo microscope 7-75x magnification
Fragment of a silver gilt stamped foil, originally likely to have been a strip. Decorated with the forward facing faces of two men side by side and joined by their moustache. The faces feature semi-circular brow lines and beady eyes with a nose or a nose piece extending form the middle of their brow to the centre of their face in a straight line. Their lips are slightly parted in a manner similar to that of the man on the silver gilt pommel K711. Although visibly very similar the execution of the decoration on the two men is not identical. The face on the right features an pin hole just under the left eye, suggesting this fragment may have been part of a frieze, attached by a pin to a support; there are also remains of an upper and lower border-perhaps billeted as in other stamped foils- which would indicate that the width of the complete strip was just over one centimetre.

Associated Objects:

Pre-Conservation Condition: Visual and microscopic examination using Leica stereo microscope 0.63-4x magnification

The silver gilt fragment is almost entirely covered by a layer of what appears to be an encrustation of corrosion products and soil. This is very thin, but quite compact. A large gap in this encrustation shows the gilding on the surface as being still remarkably gold coloured. On closer inspection, a yellow layer of a semi-transparent material is also visible under and mixed with the soil. The back of the object also features an area covered with this dark yellow layer, while the area not affected by this layer is of a bright grey silver colour with micro-deposits of a black material. It is to be presumed that, as any other silver objects and especially foils, this object is very brittle and fragile and should be treated with extreme care.

Treatment: Carried out using a Leica stereo microscope
Purpose: Display/ Analysis/ Study
Aim: Total cleaning
Materials: Soft natural/synthetic brushes, cotton swab, cocktail stick, thorn in pin vice/holder, water on garnets, water/IMS on metals, other – specify

The granular soil on the exterior/interior surface was mechanically removed or reduced where possible using a fine thorn tip secured in a pin vice and a small pure bristle brush. IMS or water was used to soften the soil to facilitate removal. Loose particles of soil were then removed with a small swab of IMS.

Removal of silver tarnish: After observing an increased black tarnish on the surface obscuring the decoration, it was decide to remove this tarnish with IMS swabs slightly dipped in the liquid from Silvo
Duraglit® Wadding Polish (A registered trademark for abrasive polishing pads. Duraglit® is a thick cotton wadding pad embedded with micro-fine aluminium oxide abrasives. It is moistened with mineral spirits. Duraglit® Wadding Polish, Silver – finest abrasive for use with silver*); the Silvo own wadding was not used, but a cotton swab wet with IMS was dipped lightly into the cleaning material at the bottom of the container; this quickly and effectively removed the black silver tarnish; the surface was then rinsed with 3 clean swabs of IMS.

Mounting; the foil fragment was re-enforced at the back by the adhesion of two small cuts of spun polyester soaked in a 10% solution of B72 in acetone. The foil fragment was then adherer to the spun polyester lined board with a drop of commercial Paraloid B72 (HMG). As the foil fragment is bent and does not lay flat on the board, two small pieces of Plastazote were placed under the lifting edges of the foil fragment to prevent breakage in case of pressure

Box: A new storage box padded with white polyethylene foam was constructed to house the object. The object was mounted on a sheet of spun polyester fixed on a piece of acid free card, partially backed with silicone lined paper. The adhesive used was a solution of 10% Paraloid b72 in acetone and the ready made HMG B72 commercial solution. A piece of acid free card with a window enabling viewing of the foil was then placed as a top layer.
A piece of blue silver cloth was placed over the object in the box to aid prevention of tarnishing.

Post-Conservation Condition/Findings:
After carrying out solvent tests is was discovered that the superficial layer of encrustation covering the top is soluble in both water and IMS, unlike the silver gilt pommel K711, which is covered in a hard crust of insoluble corrosion products.
This may suggest the semi-transparent, dark yellow layer is of an organic material, which, once solved with swabs of IMS, facilitates the removal of the surface encrustation.
The uncovering of the surface by cleaning and its exposure to air had the almost immediate effect of a dark, iridescent tarnish being formed onto the gilded surface, darkening the gold. The speed and extent of the formation of this tarnish is accelerated by the use of water, so

only IMS was used to clean the surface. This object may undergo further cleaning to remove the tarnish once the other fragment sin the frieze are located and conserved for display.

Analysis undertaken
XRF analysis of the object was performed. See document 'K1775 XRF Report'.

Samples:
1. Swabs used to clean entire top surface with IMS DISPOSED

Reference:
T. Stambolov (1985) The corrosion and conservation of metallic antiquities and works of art. CL Publications

* Silvo material search on: http://cameo.mfa.org/