K1007 Condition Report

Conservation Started: 04/02/2013
Conservation Finished: 04/02/2013
Conservator: Cymbeline Storey
Time Taken: 4 hours
Including digital photography, report, conservation and packing.

Dimensions: (L) 33mm (W) 11mm (H) 16mm
Weight before: 7.10g
Weight after: 6.66g
Catalogue number: 69

Digital photography:
Taken with a Nikon Coolpix 4500 digital camera, under daylight or bulbs and Meiji Techno RZ Stereo microscope with an Infinity 1 camera (with analyses capture software) and fibre optic lights, 7-75x magnification. Taken before and after.

Annotation on any of the storage bags or boxes: None

Description: Visual and microscopic examination using Meiji stereo microscope 7-75x magnification

Partial silver gilt pommel cap (three-quarters of one face + one summit + one set of rivet casings); the remainder is missing. The decorative scheme on the face is an incised zoomorphic interlace with raised niello inlay. There is additional interlace design on the shoulder. The rivet casings are barrel-like and tapered, with the wider end at the bottom, tapering toward the top. There are the partial remains of two silver pins in the holes; one has a domed head.

Associated Objects: K39 (joins with); others TBC

Pre-Conservation Condition: Visual and microscopic examination using Meiji stereo microscope 7-75x magnification

The fragment is completely covered in what appears to be a thin layer of silver chloride corrosion that obscures much of the decorative detail. Visible metal is tarnished, and a trace of gilding can be seen on the front face. All of the breaks look old.

Both sides have partial soil coverage. There is a distinct, recent-looking scratch on the back as well as some soil and green corrosion products.

One partial pin is in situ – silver with a deformed, domed head. It is broken off flush with the bottom of the rivet casing.

Treatment: Carried out using a Meiji stereo microscope
Purpose: Study
Aim: Partial cleaning

Materials: Soft natural/synthetic brushes, thorn in pin vice/holder, IMS on metals, 50:50 water/IMS on metals, cotton wool swabs, cocktail stick, Paraloid B72

The granular soil on the front/back 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.

Most of the silver chloride corrosion products were left in situ; they were removed where they interfered with the legibility of the design. Corrosion was not active and can be further cleaned or stabilised at a later date.

The paper K number was adhered to the back with HMG brand Paraloid B72 (ethyl methacrylate copolymer) from the tube, applied with a cocktail stick.

A storage box padded with white polyethylene foam was made for housing the object. A strip of Tyvek (spun bound polyethylene fibres) was used as a cushion for the object and to help lift it out of the foam.

Post-Conservation Condition/Findings:

During conservation a second partial pin was discovered in the hole thought to be empty. The head has broken off, but the silver shaft of the pin can be seen inside the hole. It appears to be secure.

The design is formed of raised zoomorphic interlace of ungilded silver with raised niello inlay. Some of the niello is missing. Where is it missing an empty channel with a rough surface can be seen. Recessed areas are gilded.

All ungilded silver surfaces are heavily tarnished to a dark grey colour. Gilded (recessed) surfaces have light to moderate tarnish. The surface is largely covered with a thin layer of silver chloride corrosion. Most of this corrosion was left in situ; it was reduced where it impaired the legibility of the design.

There are green corrosion products on the inside of the object as well as at least one distinct, recent-looking scratch and numerous old-looking scratches that may be working marks.

There is an area of wear near the summit of the pommel cap where the design has been obliterated. The surface has general abrasion.

Key Features:

- Partial silver gilt pommel cap
- Zoomorphic decoration with niello inlay

Samples:

1. soil – exterior
2. soil – interior
3. black inclusions (niello fragments?) in soil, front

Analysis:

Surface XRF analysis was undertaken on the front surface of the pommel. A sub-surface area was prepared on the inside to allow analysis of the core alloy.