

## K138 Condition Report

**Conservation Started:** 14/02/13

**Conservation Finished:** 14/02/13

**Conservator:** Natalie Harding

**Time Taken:** 1hour

Including digital photography, report, conservation and packing.

**Dimensions:** (L) 30mm, (W) 18mm, (H) 4mm, (Th) 1-1.5mm

**Weight before:** 2.89g

**Weight after:** 2.79g

**Catalogue number:** 371

### **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, during and after.

**Annotation on any of the storage bags or boxes:** n/a

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

Multiple fragments from a 'mixed bag' in seven bags. X-ray: L47:

a) Silver-alloy, cast hilt-plate with flange, in five fragments (K138/K419/K593/K761a/K799), from the underside of the lower guard. A blade aperture runs the majority of the length, with rivet holes at either end, in one the stub of a rivet; it is encircled by the impression left by the now missing bossed head. The underside is hollow, and the upper surface has remains of gilding.

**Associated Objects:** Five fragments (K761/K419/K593/K761a/K799)

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

A light covering of soil obscures fine details of the surface. Quite good condition, general scratches and wear marks all over, no apparent distortion.

Rivet/pin head broken off at the back.

**Treatment:** Carried out using a Meiji stereo microscope

**Purpose:** Study / Analysis

**Aim:** Total 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 and 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.

Corrosion products were left in situ; 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:**

Cleaning reveals remains of gilding in small areas and where it has been worn down. The reverse shows a granular surface, suggesting this piece is cast.

There is possible tooling on the reverse side and black silver tarnish covers the entire surface.

Silver nodule corrosion products mainly on the underside surface, along with copper alloy corrosion products.

**Key Features:**

- One of five pieces of a silver alloy hilt plate.
- Gilding on upper surface.
- Granular surface on reverse – possible cast piece.
- Ghost shadow of a boss.
- Rivet/pin head, broken off at the back.

**Analysis Undertaken:**

Surface and subsurface analysis was carried out using the Bruker Mistral M1 XRF. This analysis formed part of the silver pilot study for the English Heritage programme. To access the core (sub-surface) of the object a small area on the surface was removed from the inside of the hilt-plate.

**Samples:**

1. Soil – all over

**References:**