

## K1112 Condition Report

**Conservation Started:** 29/08/2012

**Conservation Finished:** 30/08/2012

**Conservator:** Cymbeline Storey

**Time Taken:** 4 hours

Including digital photography, report, conservation and packing.

**Dimensions:** (L) 18mm (W) 14mm (D) 2.5mm

**Weight before:** 1.69g

**Weight after:** 1.64g

**X-ray plate:** L42, L95, L104, L116, L125, L139

**Catalogue number:** 75

### **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 noted

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

Flat fragment of silver with gilding and niello inlay on the front and plain, ungilded back. All edges are breaks. The front has two silver gilt areas with ridged interlace design and two raised triangular areas with niello inlay. A band of three-ridged interlace runs along the longest side of the fragment; the opposite side has an unknown design (possibly a knot).

**Associated Objects:** TBC

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

The fragment is flat and all edges are breaks. Three break edges look old and are covered with soil. One break edge (the shortest edge) is new and soil-free.

The front is ~90% covered with compact, sandy soil that obscures most surface detail. There is some plant matter in the soil and at least one black inclusion (possibly a niello fragment). There is tarnish on gilded areas.

The back is ungilded and heavily tarnished to a consistent, dark grey colour. The surface of the silver has an uneven, rough texture. There are pronounced indentations on the back that correspond to the triangular niello areas on the front. The back is ~90% covered with a thin layer of soil with no remarkable features.

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

**Purpose:** Study / Analysis

**Aim:** Partial cleaning

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

The granular soil on the front 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. No attempt was made to clean the back of the object.

One area of lifting gilding required consolidation to prevent it breaking off; Paraloid B72 (ethyl methacrylate copolymer) 20% w/v in acetone was applied with a small paint brush. The vulnerable gilding is now secure.

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.

JULY 2013: Removed soil from back using thorn in a pin vice, IMS, brushes and swabs.

**Post-Conservation Condition/Findings:**

Soil removal revealed complex surface decoration consisting of three-ridged interlace design on the longest edge, a three-pointed, two-ridged knot-like design on the opposite edge, and two triangles containing niello inlay. Within each triangle there are three teardrop-shaped areas of silver (non-gilded); see photographs.

The niello is slightly raised and had a rough texture. It is slightly more deteriorated in one triangle than it is in the other. Some of the niello is missing from the more deteriorated triangle. Soil was removed from the empty channel so that the bottom and sides of the channel could be seen. A small sample of niello was retrieved from this area for analysis.

There are patches of iridescent to grey tarnish on gilded areas as well as general surface abrasion.

**Key Features:**

- Silver gilt fragment; all edges breaks (one new break and three old breaks)
- Three-ridge interlace
- Two niello triangles
- Complex design

**Samples:**

1. soil - front and edges
2. plant matter in soil - front **DISPOSED**

3. possible niello fragment from soil on break edge **DISPOSED**
4. niello fragment from triangle on front

**Analysis:**

Surface XRF analysis was undertaken on a number of components including the gilding present on the body, ring and shoulders, the silver triangles and the silver twisted wire.

A sub-surface area was prepared on the three different parts of the pommel to allow analysis of the core alloy. The first was on the back of fragment K744, the second was the edge of the gilded shoulder fragment K904 and finally on the base of the main body K1185.