

## K107 Condition Report

**Conservation Started:** 29/11/2012

**Conservation Finished:** 30/11/2012

**Conservator:** Cymbeline Storey

**Time Taken:** 8 hours

Including digital photography, report, conservation and packing.

**Dimensions:** (L) 18.5mm (W) 18mm (H) 18mm (Th) base 3mm (Th) bar 2.5mm

**Weight before:** 10.44g

**Weight after:** 9.27g

**Catalogue number:** 574

### **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:** 17 (in a triangle), 24/7/09

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

Truncated, four-sided gold and garnet sword pyramid; square base and square top. Single cabochon garnet set in top. Each of the four sides is decorated with cloisonné garnets set into a triangular shape. There are two different cloisonné designs, two of each, on adjacent sides rather than opposing sides. The pyramid has beaded filigree wire along the edges and a row of 'rosettes' consisting of a gold globule surrounded by beaded filigree wire along each long edge of the cloisonné garnet triangles.

The pyramid has a copper alloy liner with a cross-bar flush with the bottom of the object.

**Associated Objects:** TBC

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

The copper alloy core is corroded. Part of one of the sides is missing, apparently ripped off.

Soil is present in recessed areas of the front, particularly around the rosettes. Four garnets are missing and one is cracked. The cabochon garnet in the top is crooked and pink. The garnets on the sides are highly polished and cherry red in colour.

Textured backing foils are visible behind all garnets.

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

**Purpose:** Study / Analysis

**Aim:** Total cleaning / Stabilisation

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

The granular soil on the exterior and interior 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.

An area of the copper alloy cross-bar on the bottom required consolidation to prevent breakage; Paraloid B72 (ethyl methacrylate copolymer) 10% w/v in a 50:50 mixture of IMS:acetone was applied with a small paint brush.

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 bottom 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:**

Soil removal has enabled the rosettes to be seen. There are five rows with 12 rosettes and three rows with 13 rosettes.

One textured backing foil is visible.

The interior was excavated and material retained in sample vials. There was no obviously organic material inside (apart from a little plant matter thought to be from the soil), though the soil was dense and with a ribbon-like appearance. These dense chunks were retained for future analysis or study.

The garnets have a wonderful shine and the object is largely intact.

**Key Features:**

- Four-sided gold and garnet sword pyramid with square base
- Two cloisonné garnet designs (two of each on adjacent sides)
- Copper alloy liner with cross-bar
- Cabochon garnet in top
- Rows of gold rosettes around garnets

**Samples:**

1. soil - sides
2. soil - interior
3. clumps of soil from interior **ADDED TO SAMPLE 2**
4. resinous-looking material from interior

5. plant matter in soil - interior