

**CAT No. 581 - Sword Pyramid**  
**K382, K676, K849, K999, K1254**  
**Condition Report**

**Conservation Started: 11/1/2016**

**Conservation Finished: 12/1/2016**

**Conservator: Kayleigh Fuller**

**Time Taken: 5 hours**

Including digital photography, report, conservation and packing.

**Dimensions:** W. largest 21mm; H. 19mm; Th. base 2mm

**Weight before:** K676- 1.23g, K382- 6.46g, K849- 1.30g, K999- 1.22g, K1254- 0.99g

**Weight after:**

**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:**

X-ray: L22, L29, L80, L124

**Associated Objects:** K302- pyramid Pair

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

PYRAMID-FITTING IN FIVE FRAGMENTS, OF CAST SILVER WITH GOLD MOUNTS, WITH FILIGREE AND GARNET CLOISONNÉ DECORATION. All four original mounts survive, but three are detached, together with one silver fragment and one mount which are torn. Some of the silver body is missing. Most of the mounts retain silver rivets that attached them (nine in total). The ornament and manufacture is essentially identical to that for complete fitting.

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

**K382-** Overall the object, including the stones and cells, appear structurally stable

**Silver lining:** The alloy lining displays a superficial black/grey silver corrosion layer on both sides. There is also a significant amount of mid-green copper corrosion on the front faces. The corrosion appears stable at present. The back is covered in soil deposits except the lower left hand corner where a small area has been cleaned previously. Seen from the back, the lower left-hand rivet is slightly loose.

Gold front and top: The only surviving gold sides are the front and the top. The rest of the pyramid (base, right side, back and part of the left side) is missing. The lower right-hand corner has been previously cleaned, the rest of the object is covered with soil.

Garnets: The lower right-hand tear-drop shape garnet has a fracture towards the lower edge. All three of these garnets show some very fine surface pitting. Two triangular garnets on the top are slightly sunken (one more than the other). The garnet directly above the gold face is slightly raised above the cell walls on two sides.

**K676-** The object appears as it has been previously conserved /cleaned on the reverse surface. The object is a 4 sided gold panel strip with a filigree panel on the front and three tear-drop garnets in a shamrock configuration. The bottom side is long and tapers up to a short side. There is a filigree border. The panel has a slight curve/bulge in the centre of the panel. There are three rivet holes, two in the bottom corners and one in the center of the top. One of the corner rivet holes still contains a fragment of a silver rivet. The surface is covered in a heavy layer of loose and compact soil obscuring the surface and the condition of the surface.

**K849-** The pyramid side is mostly covered by a thick layer of soil. the back is partially uncovered and traces of thin copper corrosion adhering to the gold can be seen there. There appears also to be superficial red discolouration that may have come from the soil. The tarnished stubs of the silver pins can be seen from the back. The lining is fractured and has a black surface but appears to have a lighter colour centre. The fractured lining may become loose if the soil is removed. The same applied to the pins, and especially the top pin, which feels quite loose within its hole.

The pyramid has suffered bending and it now appears convex. The lower left end has suffered the most physical damage, with a torn out portion of twisted border, stretching and deformation of the pin hole . The central, lower end also features deformation and tearing of the base and lifted filigree wire.

The forceful curvature has caused the trefoil cells to be pushed apart, so that they do not closely converge anymore, but a small gap is left between them. The bottom border features two patches of black discolouration in the proximity of the pin-heads; this may be relate dot a leaching of silver onto the adjacent surface. Because of its very small and loose element, as well as the lifted wire, this object is to be handled with extreme care.

**K999-** Seems to be in good stable condition. Slight bend and warping throughout the sheet. Soil obscures detail.

**K1254-** Covered in soil. See post-conservation report for details.

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

**Purpose:** Display / Study / Analysis

**Aim:** Cleaning/ Reassembly

**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 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.

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.

#### **12/1/2016- K. Fuller**

Item was re-adhered using 40% W/V Paraloid B72 in Acetone to affix the backing fragments and filigree panels on the external sides of the object.

Item was re-boxed with K302 so that the two remain together as a pair.

#### **Post-Conservation Condition/Findings:**

A significant proportion of the cast backing of the object is lost. The three panels were adhered on but two of them show distortion and therefore the pyramid overall has a distorted shape to it.

#### **Key Features:**

- Rhombus shaped gold panels with filigree decoration and three tear shaped garnets.
- Three rivet holes some with rivets still present
- Pyramid with complete pair

#### **Analysis Undertaken:**

XRF analysis of the object was performed. See document 'KXXX XRF Report'.

#### **Samples:**

#### **References:**