

K1228 Condition Report

Conservation Started: 10.03.2011

Conservation Finished: 24.09.2013

Conservator: Sarah Klopf, Deborah Magnoler

Time Taken: 31 h

Dimensions: (L) 44 mm (W) 13 mm (H) 14 mm

Weight before: 11.89 g

Weight after: 6.90 g

X-ray plate: L2/L9

Catalogue number: 37

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:

SSH 09 1971 1001 M9 138 29/7/09

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

The object is a sword pommel cap in a domed shape with a rectangular base. It seems to be hollow, but it is filled with compact soil making it difficult to confirm this. The pommel cap is composed of three parts: two sides and a top strip. All parts are lined with either one beaded wire or two wires in a herringbone pattern along the edges.

One side shows an intricate filigree decoration made of a beaded wire which is lined on each side with finer wire. The other side is divided in two by a vertical strip of cloisonné garnets. It comprises of 12 triangular shaped cells with 8 visible garnets. The visible garnets seem to have a metal foil and are intact. To the right of this strip there is gold filigree in a geometrical pattern made of beaded wire and gold granules. The left side is completely obscured by soil.

The top strip of the cap has two panels on either side containing gold filigree in a snake-like interlaced pattern. It is made of beaded wire and gold granules. The top of the cap is bare metal.

Associated objects: TBC

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

The cap is completely filled with compact soil making it difficult to estimate what is inside and if the cap is hollow. On either side half of the decoration is obscured by soil and the areas between the filigree metalwork are filled with it. On the side with the filigree decoration there are areas with white material (mould?) on the surface. A sample for analysis has been taken.

The side with the garnet decoration is bent inwards at the right. The garnet decorated strip and the piece with the filigree decoration to the right of it are half detached from each other and from the top strip. Moreover, they have been pushed slightly upwards.

Treatment: Carried out using a Meiji stereo microscope

Purpose: Display

Aim: Total cleaning

Materials: Soft natural/synthetic brushes, cotton swab, cocktail stick, thorn in pin vice/holder, water on garnets, water/IMS on metals

The areas on the surface with white material were treated with IMS (industrial methylened spirit) to disinfect it. One sample of the material has been taken.

It was removed together with the soil and the used thorns were disposed of afterwards.

The granular soil on the exterior surface 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.

The soil inside the pommel cap was left in situ to stabilise the object.

The print out K number was adhered to the interior surface with Paraloid B72 (ethyl methacrylate copolymer) 10% w/v in acetone, applied with a fine paint brush.

A new storage box padded with white polyethylene foam was constructed to house the object.

Post-Conservation Condition/Findings:

The right part of the garnet decorated side of the pommel cap which was obscured by soil shows a geometrical pattern in filigree metalwork. It is made of beaded wire and gold granules and differs slightly from the filigree on the left side of the garnet strip.

It is partly detached from the top strip of the pommel cap which is slightly bent upwards in this area (see picture in loan out report).

The top garnet of the garnet strip is lost and the metal foil has fallen out of the cell. It is kept in a sample tube for analysis together with the object. On the back of the metal foil and in the cell are deposits of black paste.

All the other garnets are intact and have a metal foil. The garnet in the bottom cell is loose, but not in danger of falling out. Nevertheless, the pommel cap should be handled with care.

On the side with the filigree decoration the base is slightly bent upwards on the right side. On the same side there is also a puncture, close to the wire edging of the base. It caused one of the wires to break (see picture in loan out report).

At one of the short sides of the base half of the beaded wire became detached and is bent outwards (see picture in loan out report). Therefore, the pommel cap needs to be handled with care.

The gold surface shows light scratches all over and deeper ones on the top of the pommel cap (see picture in loan out report).

24.09.2013: the soil was removed from the inside of the object: this was locally discoloured to appear grey. There were deposits where the soil had taken a dark orange tinge, possibly indicating the presence of corroded iron. A large lump of a dense, almost pink material which appears to be clay was also found inside the pommel; the content of the pommel have now been sampled and are stored in the same box as the object.

Samples:

1. White material from surface **DISPOSED**
2. Soil from exterior
3. Loose metal foil
4. soil form inside the pommel, contains Fe corrosion products, clay and plant material (rootlets and chaff)

XRF-Analysis:

XRF-Analysis has been carried out using a handheld Bruker XRF-machine, model TRACeR III-V. For results see spectra which have been filed under the same accession number.

Gold and silver content:

gold foil		gold on top of filigree side	
gold	78,3 %	gold	82,3 %
silver	15,9 %	silver	13,3 %
copper	2,2 %	copper	3,4 %