

K1155 Condition Report

Conservation Started: 12/03/13

Conservation Finished: 12/03/13

Conservator: Ciarán Lavelle

Time Taken: 5 Hours

Including digital photography, report, conservation and packing.

Dimensions: (L) 29mm (W) 16mm (H) 14mm (Th. edge) 2mm

Weight before: 13.34g

Weight after: 8.31g

X-ray: L65

Catalogue number: 159

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:

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

Gold Hilt collar with garnets.

Associated Objects:

None known at present.

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

The object is a small hilt collar with a garnet surface. It is warped and compressed in appearance and covered in a moderate/heavy layer of loose and compact soil obscuring the surface and the condition of the garnet surface in the damaged areas. The object is tapered from narrow top to the wider base.

Treatment: Carried out using a Meiji stereo microscope

Purpose: Display / Study / Analysis

Aim: Total cleaning (as far as possible) / 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 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.

Post-Conservation Condition/Findings:

During Conservation:

Multiple gold foils and garnets from the damaged cells loose, they were sampled in a plastic tube. Many cells in the damaged section are devoid of garnets and in some cases even gold foils. On the side divider panel on the damages side of the object there is CuA corrosion products visible in the cells; this may be the corroded residue of an underlying CuA sheet and/or the residue of the CuA decorative paste. Putty material from within various cells came loose, it was sampled in a plastic tube.

After Conservation:

The object is a small gold hilt collar with a garnet surface. The surface has 6 wide panels with two differing mushroom/arrow shaped garnet designs and two thin side divider panels with a semi-circular and triangle pattern. One side panel is intact where as the opposite side is highly damaged with 80-90% of the garnets missing and severe damage to the gold cells. The surface of the gold is warped and suffering slight compression damage; this has the result of damaged cells and missing garnets and gold foils, especially to the top surface, on one side where the cells are heavily warped. During the conservation process a number of garnets, foil and cell walls came loose once the soil was removed. These loose fragments were sampled in a plastic sample tube. In areas where the underlying metal sheet has been bent/warped the cell calls can be seen to either become warped and/or flattened to the exterior surface or lift off the back sheet and sit in their original position. This reveals some of the design/technology. The interior surface is polished and unadorned in appearance. The top rim is warped in appearance with the metal broken, bent towards the interior and the entire rim on that corner is compressed inwards. A join can be seen near one corner, on the more damaged side of the interior.

Some of the garnets are cracked in appearance with surface loss visible by the lamellar break edge/ripples visible. Soil is still visible on the surface in hard to clean areas in and around the garnets and cells as well as on the interior surface. Due to lack of equipment this excess soil could not be removed without causing damage to the surface so it was left in situ. The gold is tarnished in appearance (yellow/orange/red and black) with nicks, scratches, dents, and general wear and tear visible on the surface. There is some insoluble crustations and hard to remove soil/tarnish on the interior and front gold surfaces.

Key Features:

- Gold hilt collar with garnet decorative surface – three differing styles.
- Warped and damaged.
- Garnet and gold foil loss.

Samples:

Sample 1 – Exterior soil

Sample 2 – Interior Soil

Sample 3 – Loose Garnets and foil.

References: