K1275 Condition Report

Conservation Started: 16/01/2013
Conservation Finished: 16/01/2013
Conservator: Ciarán Lavelle
Time Taken: 6 hours
Including digital photography, report, conservation and packing.

Dimensions: (L) 48mm (H) 4.5mm (Th. edge) 3-4.5mm
Weight before: 3.71g
Weight after: 3.37g
X-ray: L23
Catalogue number: 179

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:
K1275. SSH09, 1971, 1001, N12, 364(within a triangle/cut). 5/8/09. Garnets. X-RAY: L23.

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

Gold and garnet cloisonné hilt-collar of sheet-metal construction; torn and bent open, missing multiple garnets and others sunken. Garnets backed by stamped gold waffle-patterned foils. Geometric ornament comprises a pattern formed by stepped cell-forms.

Associated Objects: None known at present.

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

A curved object (semi-circular), torc like in style. The object is constructed three sides of gold plating (two sides and the inner back portion) and the top and interior is filled with gold partitioning with garnets in the cells/partitions. The two ends show signs of damage with break edges visible. There is damage visible across the length of the object with nicks, warping, bending and the possible loss of garnets visible. The object is covered in a moderate/heavy layer of loose and compact soil, obscuring the view of garnets. Some garnet cells appear filled in completely with soil.

Treatment: Carried out using a Meiji stereo microscope
Purpose: Display / 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 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.

An area of metal, a thin sliver on the side of the object, near one of the ends, required consolidation; Paraloid B72 (ethyl methacrylate copolymer) 10% w/v in acetone was applied with a glass micropipette.

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 Treatment:
A sliver of gold on the side, near the more curved end, is loose and at risk of breaking off so it was carefully cleaned and stuck down with paraloid B72.

After treatment:
There were 27 complete cells on the object, all contained garnets insitu bar 5 cells. The garnets for these 5 cells were not found within the attached soil. Of the 5 cells four of them still contained the gold foil upon which the garnet was placed. The 5th cell did not contain any foil. 4 of the cells with the missing garnets are in the centre of the object where damage to the metal is visible and the 5th is at the end near the break edges.

In the centre of the object there are 3 cells which have suffered severe damage, resulting in the loss of two of the garnets and the loosening of one of the foils. This cell with loose foil was photographed both with the foil in and out of the cell, the foil was then placed in a sample vial and stored with the object. One of these central cells with the missing garnet also contained a minute fragment of gold foil which was in the soil layer. This was placed in the sample vial. A piece of a possible CuA fragment was uncovered in the soil in an empty cell at the end of the object; this was placed in the sample vial.

The garnets still insitu appear in good condition with some damage visible across the object, especially where the surrounding metal has been damaged. The sides and the back of the metal are unadorned and appear highly polished in appearance. There is a crack running along the edge where the sheet is bent round at a 90° angle to create the sides, this break runs from one break edge along the edge as far as the middle of the object where the metal is damaged and 4 cells are missing their original garnets. There is dirt visible within this crack which has been left insitu to prevent causing further damage to the object.

Key Features:

- Thin gold strip with 27 intact garnet cells and 22 garnets insitu.
- Gold foil remaining in 4 of the 5 cells missing their garnets.
- Two break edges on either side of the object.
- A crack/tear visible along half the length on one side.
- Damage to the metal along the length of the object, resulting in the loss of 5 garnets.

- Unadorned but polished gold surface on the sides and the back.
- Fragment of CuA (?) in the soil in the damage cell at end of the object.

Samples:
Sample 1 – Soil from the sides and the back of the object.
Sample 2 – Soil from the garnet cells.
Sample 3 – Sample of the black putty (?) from the central cell with the loose gold foil.
Sample 4 – Gold foil from central cell
Sample 5 – Gold fragment from the soil in the central cells
Sample 6 – CuA (?) fragment from the damaged cell at end of object

References: