K127 Condition Report

Conservation Started: 23/5/2012
Conservation Finished: 30/5/2012
Conservator: Brian Castriota, KF
Time Taken: 29 hours
Including digital photography, report, conservation and packing.

Dimensions: (L) 73mm (W) 16mm (Th) 3.5mm
Weight before: 35.08 g
Weight after: 33.43g
Catalogue number: 546

Digital photography:
Taken with a Nikon Coolpix 4500 digital camera, under daylight or bulbs; Meiji Techno RZ Stereo microscope with an Infinity 1 camera (with analyses capture software) and fibre optic lights, 7-75x magnification; Keyence VH-Z20R 3D digital microscope and fibre optic lights, 20-200x magnification. Taken before, during and after.

Annotation on any of the storage bags or boxes: none

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

The object is a gold and garnet cloisonné strip with beaded wire filigree along the long edges. Garnets are scarlet in colour, and the cloisonné pattern is composed of stepped-, arced- and square cells forming a "mushroom type" pattern with repeated quadrisected quatrefoils. The strip is folded in half and slightly twisted. One end of the strip is torn; the beaded wire, exterior cell wall, and part of the backing plate are folded over the front of the object. The opposite end tapers slightly, and the end is finished with a slight diagonal edge. The beaded wire does not continue around the short, finished side. The strip is approximately 3 mm in height, 15 - 17 mm in width, and unbent the strip would be approximately 150 mm in length.

Associated Objects: K1, K463, K643, K681, K712, K1313 (strip fragments). Same pattern as K270 and K843 (lentoids).

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

The strip is bent so that the cloisonné surfaces are folded towards each other. The torn side (side A) is covered in dense sandy soil. The cell walls are heavily ruptured and distorted inside the fold and around the twist. Cell walls are torn along soldering joins and a few garnets appear to be missing though the extent of damage cannot be fully assessed due to soil coverage. The tops of most of the cell walls are visible through the soil indicating most of the garnets on side A are either sunken or missing. The interior fold is covered in dense sandy soil. The finished side (side B) is lightly covered in sandy soil. Garnets are mostly flush with the surface and the cloisonné appears well preserved and undamaged.

The back of the strip consists of a gold backing plate. Soil is adhered to the back in isolated areas and recesses. A number of scratches are visible as well as a few round and irregular punch/tool marks that appear punched from the front.

The beaded wire on the long edges is soldered to the sidewalls of the strip, and the backing plate extends slightly to form a lip under the wire. On the torn end of side A, the beaded wire is torn from the sidewall and folded over the short end of the strip. On the opposite side approximately 30 mm of beaded wire are missing from the sidewall.

Soil removal is necessary to fully assess condition and improve legibility of the object.

Treatment: Carried out using a Meiji stereo microscope
Purpose: Display / Analysis / Study
Aim: Partial cleaning
Materials: Soft natural/synthetic brushes, cotton swab, cocktail stick, thorn in pin vice/holder, water on garnets, water/IMS on metals.

The granular soil was removed from the cloisonné surface to expose garnets and the cloisonné pattern. Soil was also removed along the top beaded wire edge and an area of the backing plate folded over the cloisonné surface for display purposes. Soil was reduced or removed mechanically using a fine barberry thorn tip secured in a pin vice and an aspirator. IMS or water was used to soften the soil to facilitate removal. Loose particles of soil were removed from the cloisonné surface with a cotton swab moistened with water. Soil was further removed form the beaded wire edge and gold surface with a soft paint brush and a swab moistened with IMS and water.

Most of the preserved garnets on side A were sunken in their cells and required microexcavation at least 50% into the depth of the cells in order to expose preserved garnets. In a number of instances on side A this resulted in the total decohesion of residual soil in the cells thereby revealing the gold foils or completely empty cells. A total of 14 cells contained foils without garnets; these foils were secure in their cells and required no consolidation. 4 cells were empty without garnets or foils and appeared to contain a green bedding paste. 2 severely bent open cells on the end of side A near the fold were completely empty.

A total of 7 garnets required consolidation with HMG brand Paraloid B72 (ethyl methacrylate copolymer). 5 were unbroken but loose in their cells; these garnets were tacked to adjacent sidewalls with a soft bead of Paraloid B72 from the tube, resolublized with acetone. 11 garnets are cracked or broken; one on the far right of side A and one in the interior fold required consolidation with 10% B72 w/v in acetone.

The paper K number was adhered to the interior surface with HMG brand Paraloid B72 (ethyl methacrylate copolymer) from the tube, applied with a fine paint brush.

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

18/1/2016- K. Fuller
Item cleaned further, new weight recorded

Post-Conservation Condition/Findings:

The strip contains a total of 240 cells, 143 garnets, and 14 exposed foils.

4 small, circular fastening holes with worn edges were identified on the backing plate of side B, as well as 3 larger, more irregular holes along the length of the backing plate. All holes appear to have been punched from the front prior to the inlay of garnets. Two of the small punch holes are on the edge of the backing plate, beneath the beaded wire.

Parallel scratches or filing marks were identified on the finished sidewall of the strip.

Circular soldering joins from the beaded wire and incised, laying-out marks are visible along the torn and folded over external wall on side A, as well as an area of the bottom side wall where the beaded wire is missing.

The tops of the cell walls are only minimally rubbed down.

Key Features:

- Geometric garnet cloisonné with textured gold backing foils and gold beaded gold wire
- Slanted finished end that tapers to a point
- 6 fastening holes
- Filing marks on finished end
- Minimally burnished cell walls

Analysis Undertaken:

XRF analysis of the object was performed. See document 'K127 XRF Report'.

Samples:

1. Plant matter from soil, side B DISPOSED
2. Gold foil fragment from soil, side B
3. Plant matter from soil, Side B DISPOSED
4. Soil, side B and fold
5. Plant matter from soil, side B DISPOSED
6. Plant matter from soil, inside fold DISPOSED
7. Plant matter from soil, side A DISPOSED
8. Soil, side A ADDED TO SAMPLE 4
9. Inclusion from soil, side A ADDED TO SAMPLE 4