

## K112 Condition Report

**Conservation Started: 2012-08-22**

**Conservation Finished: 2012-08-23**

**Conservator: Evelyn Ayre**

**Time Taken: 6 hours**

Including digital photography, report, conservation and packing.

**Dimensions:** (L) 17.5 mm (W) 17.5 mm (Th) 2 mm

**Weight before:** 1.53 g

**Weight after:** 1.51 g

**Catalogue number:** 541

### **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: None noted. Retrieved from display.**

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

K112 is a triangular garnet cloisonné panel with 12 cells containing 10 garnets (one triangular, one mushroom shaped, 10 stepped cells) plus 1 triangular lidded cell.

**Associated Objects:** K130 "Mystery object" K112 is panel from the damaged, missing area on K130.

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

The front has an uneven layer of soil. Soil sits particularly in the bottom right corner of empty cells. The back has clumpy, uneven soil that is heaviest in the bottom right corner. The edges have a small amount of fine soil. The gold surfaces are all lightly abraded.

The front has a central mushroom shaped garnet. The gold cell around this garnet bears a deep scratch. Above this is a triangular garnet with a curve cut out from the bottom to key in to the mushroom top. Heavy soil fills this cell and it is difficult to assess the condition of this garnet. Below the mushroom garnet is a triangular lidded cell (intentionally made with just gold, no garnet). To the left and right of this triangle are 5 stepped-shape cells. Two of the cells to the left of the triangle are missing garnets: one has an exposed gold foil. The other contains paste residue and soil and the bottom cell wall is bent away and off the gold sheet backing.

The garnets visible through the soil appear chipped, at least one is cracked down the centre. The left edge does not have a cell wall and therefore all contents of these cells are exposed along this edge. There is heavy soil coverage along half of this edge.

A maker's mark (looks like a backwards letter 'F') appears on the back along with paste residue. There are some areas where white residue is found among the black paste. The gold surface is abraded, uneven and pock-marked (especially in left half of triangle) and mottled. There are 5 raised round bumps (3 at the corners, 2 on left and right edge lengths). These may be impressions from something within the object or serve some purpose in keying this panel into the larger object to which it originally belonged.

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

**Purpose:** Display/ Analysis

**Aim:** Partial cleaning

**Materials:** Soft natural/synthetic brushes, thorn in pin vice/holder, IMS on metals

The granular soil on the front 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. A minimal amount of soil was removed as most garnets are damaged. During soil removal, 2 chips from the bottom left steps of the bottom right garnet detached. These were sampled. A detached chip from the top corner of the garnet immediately to the left of the peak of the triangle lidded cell was also sampled.

Soil was left in situ above the top triangular garnet where the garnet has been lost to preserve the gold foil and paste that is presumably beneath. Soil was also left in situ in the empty cloisonné cell at the bottom left corner as there is no garnet, to protect any paste residue for any future analysis. The back surface was minimally treated as well. Only loose soil was removed, and only areas with plain gold sheet (no paste residue) were cleaned with IMS. This was done as to not disturb the paste and white residue to allow for future analysis.

A small dab of Paraloid B-72 was applied to secure the edge of the exposed gold foil. This foil moved slightly when tapped and the B-72 serves as a safeguard should the foil become loose.

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 interior surface with HMG brand Paraloid B72 (ethyl methacrylate copolymer) from the tube, applied with a fine paint brush.

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:**

The top garnet (above the mushroom garnet) has lost its top half. There are 12 cells containing 10 garnets plus 1 lidded cell. Conchoidal chips are found on 7 of the 10 garnets. All present garnets are backed with waffle-patterned foil.

K112 provides a number of interesting features that could be examined in greater detail.

- The exposed edge: Visible here is a cross-section of cloisonné garnets, in varying levels of completeness. There is a cell with half a garnet, one with foil wrapped garnet and paste, one with no garnet but foil and paste, one with no foil or garnet. The garnet wrapped in foil shows that the black paste sits at the bottom of the cell. The waffle-patterned foil sits above this and wraps around the garnet. The side of the garnet has a small amount of green residue above wrapped gold foil edge. This green residue was also found around the edges of the cell wall in the cell with exposed foil.
- The back surface: The paste and white residue could be analysed and yield clues to the manufacture of K130. The raised bumps and maker's mark are intriguing as well.

It would be interesting to examine K130 and K112 together to understand the placement of K112 on K130.

**Key Features:**

- Exposed cross-section of cloisonné garnets
- Mushroom shaped garnet
- Lidded cell
- Backing paste
- Exposed foil
- Round raised bumps

**Analysis Undertaken:**

XRF analysis of the object was performed. See document 'K112 XRF Report'.

**Samples:**

- 1 soil -front
- 2 plant matter **DISPOSED**
- 3 loose soil - back **ADDED TO SAMPLE 1**
- 4 loose corrosion from exposed foil cell
- 5 garnet pieces (2)
- 6 garnet piece

**References:**

K130 loan-out condition report