

## K130 Condition Report

**Conservation Started:** 25/03/2011

**Conservation Finished:** 24/06/2011

**Conservator:** Cymbeline Storey

**Time Taken:** 26 hours

Including digital photography, report, conservation and packing.

**Dimensions:** (Diam) original est. 67mm (L) surviving 67 mm (W) 36 mm (D) 30 mm (Th) 3mm

**Weight before:** 57.77g

**Weight after:** 42.26g

**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:** PN 1971 19 (in a triangle) SSH '09 24/7/2009

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

The object is a convex gold object with cloisonné garnets, two zoomorphic panels, and one knot-pattern panel. There are three triangular lidded cells, one with the lid missing. The garnets are cut to geometric and mushroom shapes. All visible garnets have backing foils. There is a solid gold sheet backing that shows one fastening hole that is not visible from the top. The top of the object has a hole that is filled with soil. It is unknown if it carries all the way through the object as soil obscures this area.

The object's function is unknown, though perhaps more information will be revealed through cleaning.

The goal of treatment is to clean the object to a level suitable for display while retaining any soil that might hold evidence such as solder, organic remains, and pastes.

**Associated Objects:** K112 (triangular panel with lidded cell). Another panel is currently on display in the gallery in BMAG. It is described as being 'possibly' the side of a sword pyramid, though it looks as if it belongs to this object. Joins with K1055, which joins with K545. K467?

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

The bottom is ~80% covered with soil and the top is ~40% covered with soil. In some areas the soil appears to be the only thing holding garnets in situ. While the object was certainly curved to begin with, it has been compressed to an oblong shape, resulting in springing of the zoomorphic panels. About 30% of the object is missing. Edges surrounding the missing area are irregular and look torn, though not jagged. At least one maker's mark (an 'X') is visible on a flat area of gold where a panel used to be. There appears to be at least one piece of some other metal (probably silver) embedded in the soil on top of the object.

Due to structural damage, it is not clear to what extent the soil is holding the various components of the object together. Cleaning should proceed slowly to avoid destabilising the object.

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

**Purpose:** Display/Study/Analysis

**Aim:** Partial cleaning/Stabilisation

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

The granular soil on the exterior/interior 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.

Thorns used for this process were disposed of and brushes were washed.

Several areas of soil and garnets required consolidation; Paraloid B72 (ethyl methacrylate copolymer) 10% w/v in acetone was applied with a small brush. See document 'K130 Consolidated Areas' for details.

The soil from the back of the object was entirely removed to reveal; the residue currently left on the gold surface may be of an organic material used originally as an adhesive; no attempt was made to sample or remove this residue. In order to prevent its loss, damage and contamination during display the inner side of the object was covered with a disc of Japanese tissue paper; Paraloid B72 20% w/v in acetone was used to adhere the edges of this disc to the gold surface and secure it. (DM)

The paper 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 and the sample vials.

**8/3/2016- K. Fuller**

Item was cleaned further internally as a request from archaeologist. Some dirt was removed from the areas closest to the edge as this had sand/ soil molecules in it. Darkened and slightly reddish and waxy material was left on near the center. Possibly material which held the inner metal fixing originally in place.

**Conservation Condition/Findings:**

There are many scratches on the object consistent with burial. Cleaning did not reveal much about the function/use of the object. Two fastening holes are visible on one half of the under-side of the object. There may have been two additional fastening holes at the opposite end of the object, but this area is missing.

The condition of the garnets ranges from flawless/undamaged to crushed/chipped/broken. See loan out condition report for details.

Some of the foils were placed with the bumps facing up while some were placed with the bumps facing down.

Four pieces of silver were found embedded in the soil. Two are in the top hole area, one is inside an empty triangular panel area, and one is in an empty panel area where a zoomorphic panel once was. All of these pieces were left in situ. It is not clear whether or not the pieces of silver belong to this object because they are too irregular in placement and size to draw any conclusions. It is possible that the silver was used to line certain areas in some way, though it seems more probable that they found their way onto this object accidentally during burial. A similar piece of silver was found in the soil on top of a snake panel on K513.

Cleaning revealed several maker's marks on the gold. There is at least one in the top area (an 'X'), one in an empty triangular panel area (a vertical line), and one in an empty zoomorphic panel area (an 'X').

24.06.11: after removal of soil, the inner side revealed containing the remains of a metal fixture: this is circular in shape, quite possibly an alloy rich in silver, features rivet holes and is torn in the centre; there is a strong possibility that this is the broken off part of object K1055, which joins with K545.

XRF analysis of one of the zoomorphic panels was performed. See 'K130 XRF Report'.

**Samples:**

1. Soil from exterior
2. Soil from inside panel with 'X' laying-out mark **ADDED TO SAMPLE 1**
3. Soil from inside top hole **ADDED TO SAMPLE 1**
4. Soil from bottom of object **ADDED TO SAMPLE 1**
5. Small piece of detached gold from bottom of object
6. Material that became dislodged from damaged cell at edge of missing area
7. Soil from bottom of object near damaged end **ADDED TO SAMPLE 1**

8 A-B. Soil from bottom of object (central area) **ADDED TO SAMPLE 1**

9. Soil from bottom of object, intact end **ADDED TO SAMPLE 1**

10. Dark deposits in soil from bottom of object, underneath 'disc' in centre

11. Plant matter found in soil on bottom of object

-A crystal box with the blocks of soil removed from the inner side, containing copper corrosion products and possibly other mineralised material.