

## K1230 Condition Report

**Conservation Started:** 31/01/13

**Conservation Finished:** 04/02/13

**Conservator:** Natalie Harding

**Time Taken:** 8hours

Including digital photography, report, conservation and packing.

**Dimensions:** (L) distorted 50mm; (Th) sheet <0.5mm; rivet lengths c. 17mm; Diam. filigree collar 7mm; (H) boss 2.5mm

**Weight before:** 5.44g

**Weight after:** 2.84g

**Catalogue number:** 273

### 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:

All in upper left hand corner: SSH09, 1001, M9, 141 (in triangle), 1971, 29/7/09

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

Fragment from one end of a gold sheet-metal hilt-plate, from the lower guard, with a flanged edge; torn and heavily misshapen (from removal). A (pierced) boss with filigree collar and *in situ* pin-rivet head remains at the end [mud and condition obscures exact detail of form, pins/rivets etc]. Tang aperture evident but too damaged to interpret. Menghin *Type \*\*\*\**. (C. Fern)

Gold sheet hilt-plate. Badly damaged, missing one end and one boss. Torn, distorted and twisted with sheet edgings twisted in opposite directions. Plain, no decoration, with one surviving domed boss with rivet pierced through the apex. The boss is surrounded by one line of beaded wire. Evidence of shaped flange – although misshapen now. Soil fills all cavities and obscures the reverse side.

**Associated Objects:** n/a

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

Object seems stable, no flex at this point, however after soil removal the object may flex and become more difficult to handle. Badly damaged, missing one edge and one boss. Torn and twisted. Boss rivet head is dented on one side, yet it remains proud of the boss surface. Heavy linear scratch marks all over.

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

**Purpose:** Study / Analysis

**Aim:** Partial cleaning

**Materials:** Soft natural/synthetic brushes, thorn in pin vice/holder, IMS on metals, 50:50 water/IMS on metals, cotton wool swabs, cocktail stick, Paraloid B72

The granular soil on the front and 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.

In some areas corrosion products were left in situ; corrosion was not active and can be further cleaned or stabilised at a later date. Nodular green coloured copper alloy corrosion was found throughout the soil that was removed from the object. These were sampled where possible and the larger clumps of corrosion/soil mixture were left in situ, especially where it surrounds the boss rivet pin.

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:**

The piece is stable; however after removing most of the soil, the piece is now much more flexible and is susceptible to damage through mishandling. Aside from the major damage tears, there are multiple small tears and folds all over the flange edges.

Quite a large amount of copper alloy corrosion product found throughout the soil – samples taken. These were found in clumps or ‘nodules’ throughout the soil, especially in areas where the hilt-plate is folded over. In some areas these seem to be quite solid; however these are completely mineralised pieces and have soil running through them, making them very crumbly and susceptible to falling apart. Where possible these nodules were left in situ.

Large amount of rootlets throughout the soil – samples taken.

Multiple linear scratch marks on the wider folded edge of the flange – possible tool marks?

Boss wire ring is worn and smoothed over on the join side. It can be seen that the rivet pin has been pierced through the boss as the underside gold sheet is flared out from being pushed. After removing the soil, the boss and rivet are now both loose and can swivel – care must be taken while handling. Some soil with corrosion product has been left on the reverse of the boss to ensure that this swivel action is minimised. There are impact marks on the boss head near the rivet head, possible due to when the rivet was hammered over?

Areas of dark patches could possibly be tarnish and iron corrosion, especially on the very edges and within the bends and folds of the gold sheet. In some area this appears concreted on.

There are deep linear scratch marks on the flange of the wider, less damaged part of the hilt-plate.

**Key Features:**

- Folded over flanges (possibly hammered due to possible hammer marks)
- Beaded wire surrounding boss.
- Domed boss with rivet pin pierced through apex.

**Analysis Undertaken:** n/a

**Samples:**

1. Soil from all over.
2. Plant material.
3. Gold fragment (unsure if this is part of object).
4. Copper alloy corrosion product – ‘nodules’.

**References:** Chris Fern Object List.