

K 1613 Condition Report

Conservation Started: 06.07.11

Conservation Finished: 07.07.11

Conservator: Kjersti Marie Ellewssen

Time Taken: 15

Including digital photography, report, conservation and packing.

Dimensions: (L) 32mm (W) 23mm (H) 14.5mm (Th. edge) 1.5mm (Th. sheet) >0.5mm

Weight before: 10.01g

Weight after: 9.62g

X-ray: L26

Catalogue number: 89

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:

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

Sword hilt collar with beaded and twisted filigree decoration on exterior. Two layers of metal, the inside plain and the outside is built up by ridges, the strands of filigree resting on them. The decoration consists of thicker filigree strands in the centre and thinner filigree strand on each side of the thicker one. There are 8-15 beads on each strand. It is difficult to say whether collar has been evenly in diameter or slightly cone shaped.

The collar was assembled from two halves that were soldered together. There is no overlap between the two halves. Along the edges of the halves there is one thick and one thin wire of filigree, and the sides along which the two halves meet the wire are two beaded and twisted wires soldered together and flattened.

The object is made in a gold alloy material, but the colour and hardness of the material suggests a lower gold content than similar objects from the hoard (for instance K879). The object most likely has a high content of silver, as the surface is dark coloured which could suggest a silver sulphide tarnishing.

The plain inside sheet is made up by several patched sheets of metal hammered together in a random way, as if the maker was using surplus material for the non visible area.

Associated Objects:

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

The object is largely covered with compact soil, filling the deep areas between the filigree strands. The soil is red coloured indicating an iron rich soil. It is fine, almost like clay, and mixed with small rock crystals.

The collar has been broken and bent with jagged edges, but is still in one piece. The broken ends are not straight, and suggests that the collar has not been cut but ripped apart by some kind of physical force, either pre or under burial. The break is not new and cannot have happened during or after excavation. There is minimal soil on the inside (flat side) of the object, only under the thin foils of lifted metal. At one side of the object, one end of the thick filigree edging has split from the body and is splayed outward. At the other side of the object, the thin filigree edging has split and is laying over the decorated part of the object.

The piece appears to be without losses, but general scratching and surface wear is visible on surface.

Treatment: Carried out using a Meiji stereo microscope

Purpose: Display

Aim: Partial cleaning

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

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 was used to soften the soil to facilitate removal. Loose particles of soil were then removed with a small swab of IMS.

Because of the many deep areas of the decoration of the object, it was not possible to remove all the soil using the above mentioned method. The object was immersed in a bath of IMS, and the surface brushed. This removed some more soil, but still not to an acceptable level for display. The object was then cleaned by brushing the surface and deep areas using a soft bristle brush dampened with water. The water dissolved and bound the soil, and it was possible to lift the soil out with the brush. To remove the water from the voids, the object was immersed in a bath of 50/50 IMS/water for 3 minutes, then in a bath of pure IMS for 10 minutes. Left to dry in a fume cabinet.

Corrosion products were left in situ; corrosion was not active and can be further cleaned or stabilised at a later date. The object needs a dry environment (preferably < 20 % RH) free from sulphur gases as the sulphur easily tarnishes the gold/ silver alloyed object.

The paper K number was adhered to the interior packaging 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. 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:

Most of the soil has been cleaned off the surface and cracks of the object. The object is stable, but covered in silver tarnishing which makes it dark coloured. The iron rich soil has also discoloured the surface, by leaving small areas of iron oxide, especially along the edging wire. Many sharp edges due to two split filigree strands and bent edges of the two halves. Care must be taken when handling the object and displaying it.

Samples:

1. Soil from exterior and interior

References: if applicable