

### K1423 Silver gilt foil fragments



K1423 photo before treatment



K1423 photo after treatment

**Conservation started:** 12.01.11

**Conservation finished:** 19.1.11

**Time:** 8hrs

**Conservator's initials:** DLM

**Dimensions (HxW):** Frag. 1-17 x 26 mm  
Frag. 2 - 22 x 24 mm  
Frag. 3 - 13 x 18 mm  
Frag.4 – 10 x 21 mm

**Weight after treatment:** Frag.1 0.57g  
Frag. 2 0.50g  
Frag. 3 0.16g  
Frag. 4 0.20g

**Catalogue number:** 596, 597

### **Digital photography**

The digital photos were taken with a Nikon Coolpix 4500 under neon lamps and a Meiji Techno RZ stereo microscope with fibre optic lights and 7.5 -75 X magnification.

### **Description**

Four fragments of a silver strip, plated in gold with repousse' decoration; round shields, human figures and weapons suggest this may depict a battle scene or a procession of warriors. These details are particularly visible on the two larger fragments (1 & 2) where swords, shields and men in armour can be made out. It is possible that zoomorphic figures also appear on fragments 2 & 4. As suggested by what remains of it, the strip must have been surrounded by a finely billeted border, separated from the decorated centre by a straight groove; this border only partially survives on three of the fragments (1,2 & 3), indicating it was present on the top and left side edge; there is no physical evidence of this border continuing on the lower or right hand edge, or to the size and length of the original object. The back of the fragments are covered by a layer of black material mixed with ingrained soil, forming an encrustation: this has a rough texture: an area where this layer is not present, shows a shiny, bright silver colour metal underneath. This foil's decoration may be die-pressed: please refer to the notes at the end of this report for evidence supporting this theory.

### **Condition**

Visual examination using a Meiji stereo microscope with fibre optic lights and 7.5 - 75 X magnification.

This object has undergone previous conservation: traces of cotton fibres, adhesive and Japanese tissue paper are present; a crack on the left side of fragment 1 was repaired by adhering a strip of Japanese paper onto it (visible at the back; the fragments were then ordered onto a sequence (not necessarily the original one) and adhered onto a sheet of Japanese tissue paper, which was then mounted onto a rectangular strip of rigid polymeric material for display and handling purposes. The adhesive is soluble in acetone and IMS. Thin, localised deposits of soil were left in situ during display, but the unavailability of original before treatment pictures makes it impossible to say whether this object has been cleaned previously. The fragments are extremely fragile: the silver has become brittle and fractures vertically in straight lines. There are partial fractures, with the parts being held together by the Au plating, on the larger pieces, and the crack lines can be seen. Silver corrosion has migrated onto the surface tarnishing the gold plating and giving it an uneven, blackened and iridescent appearance. Fragment 2 displays deposits of a white/grey material closely adhered and standing slightly proud of the surface. These deposits are formed by glossy globular-shape particles which, when removed with a scalpel, leave a white/grey pitting on the surface resembling wear to the naked eye. This phenomena seems to be present considerably only on fragment 2. **XRF** of the metal has failed to indicate if this is due to the presence of another metal, such as Pb: no considerable quantities of metals rather than Au and Ag were detected during XRF analysis at the Birmingham Museum lab. The gold plating on fragment 2 has suffered localised losses, with microscopic gaps, mostly filled by a thin layer of soil, on the plating. Overall,

fragment 2 seems to have suffered the most severe damage; the plating on fragments 1,3 & 4 is tarnished but even and has maintained its overall integrity. The shape and fragility of this object mean it must be treated with extreme care and handled as little as possible.

### **Samples taken**

1. Corrosion product and soil attached to Japanese tissue paper (from the back of 1423.1, previous conservation) **DISPOSED**
2. Metal fragment

### **Treatment**

**Purpose:** Display, analysis, study

**Aim:** Total cleaning, removal of previous conservation, consolidation of cracks, remounting for display

**Materials:** IMS and cotton swab, Japanese tissue paper, Paraloid B72 20% w/v in acetone, acid free card for mounting, polyester mesh, silicone lined paper, Plastazote

**Method:**

**Cleaning:** Any soil left on the surface and obscuring the decoration detail was removed by using a cotton swab lightly wetted in IMS; this did not have any drastic effect on the tarnish, but the removal of the soil gave the object a more appreciable appearance and helped highlight some of the detail. The adhesive at the back of the object was softened using the tip of a small, natural bristle brush, wetted in IMS; this separated the fragments from the tissue paper they were adhered to; any residue of adhesive left on the back of the object was swabbed away with IMS.

**Repair:** Part of 1423.2 (the whole of the left edge) became detached during cleaning with IMS: this area had been previously repaired using a reinforcement of Japanese tissue paper and Paraloid B72 attached to the back. The lack of previous records makes it difficult to establish whether the old fracture was total or partial, but the old repair was removed by softening the adhesive with IMS. The detached side was now reattached using the same method of a small strip of Japanese tissue paper impregnated in Paraloid B72, acting as a bridge between the two sides of the fracture.

**Mounting:** The fragments were then mounted on a new support. A small round portion of Japanese tissue paper was adhered to the back of each object with Paraloid B72 in order to create a lining between the metal and the final support. The support was created by cutting a strip of mounting card and partially lining the top with silicone lined paper to avoid the object adhering directly onto the card (the silicone lined paper was adhered to the card with the same Paraloid). A piece of polyester mesh was then placed over the card; the four fragments were then attached to the polyester mesh (using Paraloid B72). The sheet of mesh was secured at the back and sides of the piece of card using the same adhesive. Any excess mesh was cut away with sharp scissors once the adhesive had set. The packaging solution is a compromise between safety and display requirements: a sheet of acid free mounting card with a cut out window the size of the support was placed on top of the plastazote padding, to create a frame for the object that could be used during exhibition.

**Reversibility:** All materials used are conservation grade and reversible; they should not degrade to damage the object and should provide enough support and flexibility.

Please NOTE: the adhesive at the back of the fragments has been used minimally and locally. This means that much of the object is free standing and not directly adhered to the polyester mesh or the backing card: this will aid future needs for reversibility and provides no rigid constraints for the very fragile fragments, but it also means that the object should be treated with particular care. **It is highly recommended that the object not be removed from its packaging during viewing.**

**Research on manufacture:**



*...Heavy bronze die, found at Toroslunda in Oland, Sweden, used to stamp decorative foils and possibly to decorate helmets like that of Sutton Hoo...*

Image and caption from: Angela Care Evans (1986) Sutton Hoo Ship Burial, The British Museum Press, London, p.117



The similarities can be noted between the human figure in the die from Toroslunda and the partial figures in object K1423, namely the pattern on the armour, the length of the sleeves, and the shape of the legs. The Toroslunda figure holds a smaller weapon (a seax?) as well as a sword.