K118 Condition Report

Conservation Started: 03/07/13
Conservation Finished: 04/07/13
Conservator: Cristina Mazzola
Time Taken: 11 hrs
Including digital photography, report, conservation and packing.

Dimensions: (L) 34.5 mm (W) 34 mm (H) 7 mm (Th) 3 mm
Weight before: 5.39 g
Weight after: 4.79 g
Catalogue number: 505

Digital photography:
Taken with a Canon EOS digital camera under daylight or bulbs and a Keyence VHX-1000 3D digital microscope with LED and/or fibre optic lights (20-200x magnification). Taken before and after.

Annotation on any of the storage bags or boxes:
n/a

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

Golden strip with embedded garnets and L-shaped ends. On the reverse side rivet holes and possibly bronze rivets are visible.

Associated Objects: n/a

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

The object is bent and warped – one half more than the other – and partially covered with brownish soil. Especially in the bent parts some garnets are missing and some of the fittings are filled with soil, so that it cannot be seen, if the gem has sunken or is missing.
On the reverse side one round hole with a greenish filling is visible – no counterpart can be seen on the front.

Apparently the object has been already been worked on, as pictures and a gelatine capsule with a soil (?) sample are already present.

Treatment: Carried out using a Meiji stereo microscope
Purpose: Study
Aim: Total cleaning
Materials: Soft natural/synthetic brushes, thorn in pin vice/holder, 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. On the back IMS was used to soften the soil to facilitate removal. Loose particles of soil were then removed with blower or a small swab of IMS.

Some garnets and gold bridges came loose during the removal of the surrounding soil. They were fixed with a point of HMG brand Paraloid B72 (ethyl methacrylate copolymer), applied with a cocktail stick and a thin brush with acetone (see fig. 1).

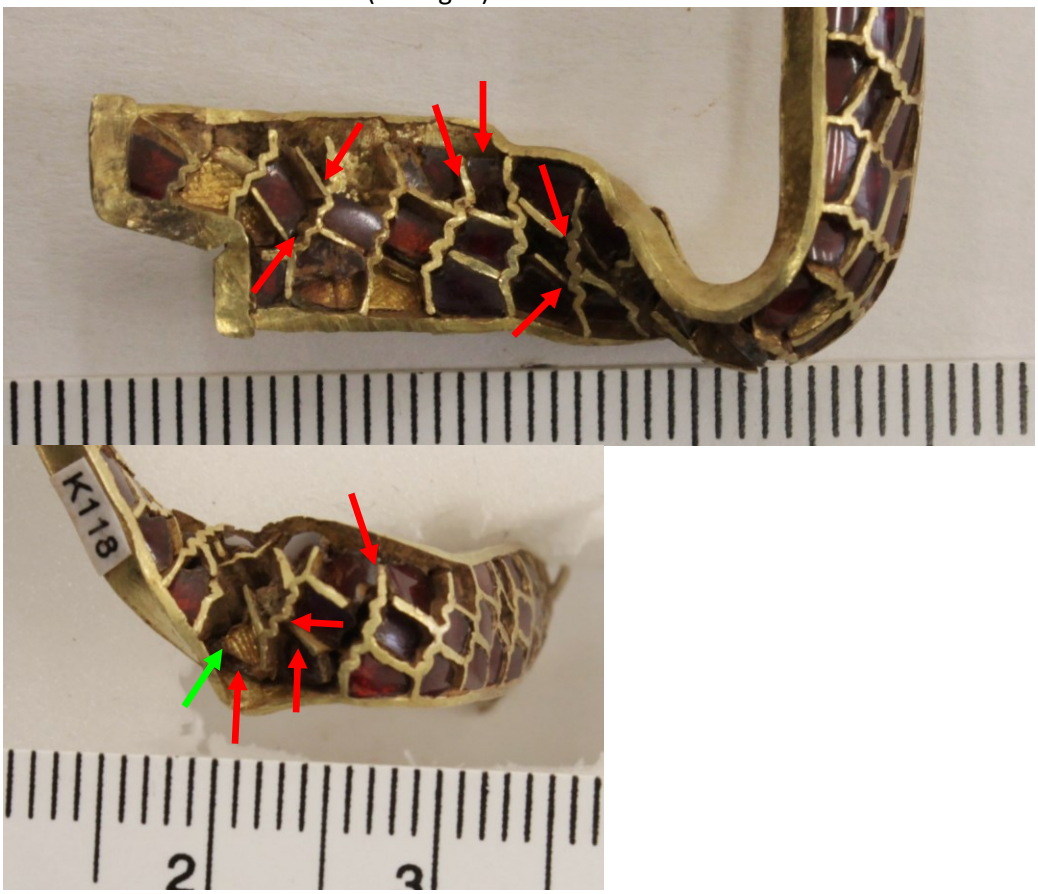

Figure 1: Details of the object's front - the red arrows indicate where Paraloid B72 has been applied, the green one the origin of sample 4.

One garnet sank further in during the conservation treatment (see fig. 2).

Figure 2: The red arrow indicates the garnet that sunk further in during treatment.

Post-Conservation Condition/Findings:

The half, which is less bent and warped, is in rather good condition with most gems still in place and hardly sunken in. The other half is quite warped and bent and several garnets are missing, broken within the cells and / or sunken in.
Cells without garnets often still contain paste residues and / or waffle sheet, only one cell is completely empty.
In two bent areas the outer object wall has been pushed outwards revealing regularly spaced vertical markings / scratches (0.5 – 1.5 mm apart) on the inside of the wall metal. They are probably related to the manufacturing.
The original cross-section had a slightly rounded top.
On the reverse side it can be seen that the side metal has become detached in some of the stronger bent areas and it looks as if it has been soldered to the base sheet.
Three rivet holes with greenish fillings (bronze rivet residues?) are clearly identifiable on the back, one opening is possibly a deformed hole. Fig. 3 indicates their locations on the unbent object.

Figure 3: The red markings show the clear holes, the blue one the possible one.

Key Features:

- Golden strip with embedded garnets and L-shaped ends
- Three (Four?) rivet holes on the back with greenish filling.

Analysis Undertaken:
n/a

Samples:
1-20 – see sample sheet

21. Soil from back
22. Soil from front
23. Crumb of paste from the area around the warped end.
24. Black matter from large gap in bent middle bit (see green arrow, fig. 1)
25. Sample that came with the object – soil from first treatment?

References: