

K1014 Small gold snake



K653 photo before treatment



K653 photo after treatment

Conservation started: 20.01.11
Conservation finished: 24.01.11
Time: 8.5 hrs
Conservator's initials: DLM

S.F. №: \triangle 71

Dimensions: (L) 50 mm (W) 25 mm (Thickness) 3 mm
Weight before treatment: 4.51g
Weight after treatment: 4.47 g
Catalogue number: 530

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

A gold snake with one surviving fixing in situ. The shape of the snake is wavy and although its body may have been twisted during forceful removal from an original hard surface, this formation probably reflects its original one, as the waves are decreasing in size but regular and there are no visible signs of surface damage related to forceful or accidental production of the curvatures. One tapered fixing survives on the underside; the end of this fixing was shaved off and thinned using a sharp object (a blade?) and the markings left on the metal by this activity are clearly visible under magnification (x7.5 and over). Longitudinal grooves on the shaft of this fixing may suggest drawing too. There appears to be no considerable solder line between the shaft and the base metal it is attached to; observation of the broken fixing holes suggests a close attachment, with some inner pin residue being left into the hole at the time of detachment. Three circular holes which would have housed three more fixings can be seen: these three fixings broke off at the joint with the underside and are now lost. The snake's body has a circular cross-section, flattened on one side (the underside): this creates a flat base for the fixing/s: these were probably bent into hooks to grip onto another material. Examples of these can be seen on the similar object K128.

The snake's body narrows just before the head, which ends in a narrowing nose and the surviving portion of a protruding tongue. Two round eyes with low relief eyeballs feature on top of the head, and may have been punched in and are not inlaid. The underside of the head is flat. A portion of the lower side of the head was shaven off by a sharp blade, which left a clean cut with a raised, jagged edge, presumably at the point of entry of the blade. The tail side thins drastically about one cm from the end; this thinning is produced by the removal of a portion of the metal in a clean cut that appears deliberate and is only appreciable under magnification. The surface texture differs between the top side, where it appears to be smooth and polished, and the underside, where it is slightly rougher and less polished. The top side near the head features small, shallow dents which look like tool marks; a longitudinal grain is visible in the form of parallel lines on the sides of the snake. Small scratches and other dents on the surface may be accidental, but not recent, or part of the polishing process. There also appears to be a number of cuts on the metal, probably produced by a sharp blade; these tend to be located on the underside and were filled with compact soil.

Condition

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

Deposits of compact soil closely adhered to the metal surface partially cover the object, which is whole and structurally stable. Presumably it featured a protruding tongue, which has now broken off and is lost. Only one of the four fixings on its underside survives in situ. The body has been twisted and distorted so that head and tail do not lie on the same plane. There are no remains or evidence of other materials associated with this object which, judging by the even, bright yellow colour must have a considerable Au content; the marks left by the sharp blade indicate a relatively soft metal. Please see the micro photographs within K1014 image file for evidence of cuts. Generally, the damage on this object's surface has occurred at a microscopic

level but the number of cuts, rather than the usual accidental surface abrasions, suggest it was not handled very carefully or skilfully: none of this damage appears to be recent, as it was covered in compact soil on its arrival to the conservation studio.

Samples taken

1. Surface soil

Analysis

Although the location of the soil before cleaning would suggest the cuts (i.e. those at the side of the head and on the underside just under the neck) are not particularly recent, their “fresh” appearance should be noted (please refer to K1014 Loan out report for a photographic description). These seem to have been produced by a relatively thin, sharp object, such as a blade; it is also duly noted that the object was placed on a Plexiglas mount and secured with two brass wires during display: although there appears to be no obvious damage produced by this system, a microscopic study of the morphology of the surface (i.e. SEM) could shed light on the nature of the existing damage as well as the manufacture of K1014.

Treatment

Purpose: Display, study

Aim: Total cleaning

Materials: Standard: soft natural brushes, cotton swab, cocktail stick, thorn and vice; IMS on metals

Method: Standard wet: Softening of soil with solvent; dislodging of soil with thorn and/or cocktail stick, removal of particles with brush; cleaning of surface with solvent in cotton swab

