

Ancient Monuments Laboratory
Report 10/92

IDENTIFICATION OF A RED STONE IN
AN ANGLO-SAXON BUCKLE PLATE FROM
MUCKING, ESSEX. AML NO. 239

Mrs M E Hutchinson

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Summary

Summary: a red stone in an Anglo-saxon buckle plate was identified as an almandine garnet

keywords: Anglo-saxon, gemstone, garnet, buckle plate

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AM LABORATORY REPORTS - APPROVALS SHEET

Title of report: Identification of a Red Stone
set in an Anglo-saxon Buckle Plate from
Mucking, Essex. AML Site Number 239

Author:

M. E. Turkington

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KEYWORD: Gemstone

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IDENTIFICATION OF A RED STONE SET IN AN ANGLO-SAXON BUCKLE
PLATE FROM MUCKING, ESSEX. AML Site No. 239

M E Hutchinson, FGA, DGA

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was identified as an almandine garnet

Keywords: Anglo-saxon, gemstone, garnet, buckle plate

Author's name and address:

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PLATE FROM MUCKING, ESSEX. AML Site Number 239

M E Hutchinson, FGA DGA

A/S CEM II; CREM (197); BURNT BRONZE BUCKLE PLATE WITH
GARNET IN CENTRE; (similar to grave 281). AML 69030

The object is a rectangular copper alloy belt plate, decorated on one side with 'chip carving'; in the centre is a rectangular red stone, now broken, in a raised mount. The stone has probably been set by burnishing the edges of the mount over the stone. The metal of the plate is a leaded bronze and it was gilded although all the metal is now dark in colour. At some point in the past, a white wax appears to have been applied to the surface.

EXAMINATION

The rectangular stone in the middle has much of its flat top obscured by a dark grey material, making it difficult to see into the interior stone. However, after experimenting with different types of illumination, accicular crystals arranged in three different crystallographic directions could be seen, and the visible light spectrum read. It was not possible to determine whether there is a metal foil behind the stone to act as a reflector.

DESCRIPTION AND IDENTIFICATION

Colour of stone: red

Cut: probably tabular but the back could not be seen with enough clarity to be sure.

Size: c 10 x 4.5mm

Inclusions: long accicular crystals in three different crystallographic directions. There are also bundles of coarse, dark coloured crystals roughly perpendicular to the flat table of the stone.

Spectrum: characteristic of almandine garnet.

Identification: on the basis of the characteristic inclusions and visible light spectrum, the stone is identified as almandine garnet ($\text{Fe}_3\text{Al}_2(\text{SiO}_4)_3$).

I am indebted to Mr Ken Scarratt, Chief Executive of the Gem Testing Laboratory of Great Britain for considerable help in identifying this stone.