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Ancient Monuments Laboratory
Report 49/97

WALL PAINTING CONDITION AUDIT,
LULLINGSTONE ROMAN VILLA, KENT

J Davies

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Summary

This condition audit of wall paintings at Lullingstone Roman Villa includes a wall painting record, general audit information, documentation of original materials and execution of the painting, and deterioration and damage including previously used materials and treatment, as well as proposals for treatment and monitoring strategies.

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Lullingstone Roman Villa Kent

The following report has been generated by the Wall Painting Section database. This archival system provides a computerised record of all wall paintings in English Heritage Historic Properties and is intended to comprehensively document the collection. Each report has been subdivided into four sections to present the data in a clear format. These include:

1 Wall Painting Record:

Includes a description of the site and paintings, as well as archival information, such as bibliographic references and photographic records.

2 General Audit Information:

Describes any monitoring undertaken and a synopsis of future conservation requirements.

3 Technique:

Documents the nature and condition of the original materials and execution of the painting which is described according to its stratigraphy and any related analysis.

4 Deterioration and damage, added materials, treatment:

Deterioration and damage lists the types of alterations which may have occurred, that is either deterioration (natural alterations such as cracking or delamination) or mechanical damage (such as graffiti).

Added Materials documents all non-original materials present on or within a painting. These may include naturally occurring substances (accretions, such as dirt and dust) or deliberately added materials (coatings, coverings and repairs).

Treatment documents previous interventions and proposed treatment and monitoring strategies.

Throughout each section, an area of painting is assigned a number between 1 and 4 which is intended as a general indication of present condition. These are: 1 good, 2 fair, 3 poor, 4 unacceptable.

This report is based on information gathered prior to March 1996 and does not include any changes in condition, further research or treatment undertaken after this date. Amended editions will be produced as necessary.

1 Wall Painting Record

Property name	LULLINGSTONE ROMAN VILLA		
Region	South East	County	Kent
Location of painting	Deep room		
Orientation	SOUTH WALL, NICHE		
Century 2 th	Date	Height (cm) 95	Width (cm) 60
Subjects included	Figure(s) Female		

Description

THE SITE

The Roman Villa at Lullingstone is believed to have been constructed c AD 75, as a timber-and-daub structure. In the second century AD the villa was rebuilt in flint and tile, and until the end of the fourth century underwent constant architectural changes. By the fourth century it was owned by a prosperous Christian land-owner, who added heated rooms, baths, and mosaic pavements, as part of a large agricultural estate. However, the basic plan of the building remained that of the 'winged corridor type', comprising a rectangular range of rooms, fronted by an open verandah, which at either end opened out into large rooms projecting forward from the verandah wall. It was in this northern room that the Early Christian 'Chi Ro' fragments originated (now in the British Museum). Under this room the verandah lead directly into the cellar (the 'Deep Room') where the Roman painted niche was located. The villa was destroyed in about AD 420. Its presence was recorded in the late 18th century, due to various small archaeological finds. The structural remains were discovered in 1939 and finally excavated in 1949 by Col. G.W. Meates. It came under the MOW in 1958, who opened it in 1963.

THE PAINTING

The painting within the niche depicts three Water Nymphs, of which two still survive. The central figure's hair is adorned with green leaves and wears a diadem, and water flows from her breasts. The cellar seems to have been used as a household shrine during this period, perhaps related to the well in the floor which lies directly opposite.

Photographic Record

29/6/94 EH 'current' contact photo files;
March 1991, fresco 'Three water nyphs' in niche of deep room, J910058.
EH photo library, computer keyword search;
March 1991, Wall painting in cellar of three water nymphs, A910217, J910058.

Bibliography

D.S. Neal, Lullingstone Roman Villa, English Heritage guidebook, English Heritage 1994, first edition 1991.

P.H.T. Shorer, Lullingstone wall plaster, paper delivered at The Conservation of Wall Paintings symposium, 25-26 March 1976, typescript in EH files.

Col. G.W. Meates, Lullingstone Roman Villa, HMSO, London 1962.

2 General Audit Information

Property name	LULLINGSTONE ROMAN VILLA	County	Kent
Region	South East		
Location	Deep room		
Orientation	SOUTH WALL, NICHE		
Century 2th	Date	Height (cm) 95	Width (cm) 60
Auditor(s)	JD	Start date	12/08/94

Overall condition score **2**

Recommendations

The condition of this highly important painting appeared stable and no active deterioration was apparent. However, the current system of environmental control, which consists of a fan in front of the niche and a thermostat underneath, is unsightly and its efficacy (for example, is it creating excessive air movement which may exacerbate flaking?) should be assessed. The installation of environmental monitoring may therefore be a prudent measure to assess the condition of the surrounding microclimate. In addition the painting should be inspected every 3 years.

Some limited treatment is required including surface cleaning to remove dirt, dust and cobwebs [Timescale: 1 conservator, 2 days within 3 years].

3 Audit Information: Technique

Property name LULLINGSTONE ROMAN VILLA
Region South East County Kent
Location Deep room
Orientation SOUTH WALL, NICHE
Century 2th Date Height (cm) 95 Width (cm) 60
Auditor(s) JD Start date 12/08/94

Overall Condition Score 2

Stratigraphy

Layer type Support Layer Specific condition Score 2
Thickness 60 cm

Comments

An additional artificial support has been applied to the rear of the original flint rubble support; this is specified as Delta/bronze reinforcement mesh and 'Bond creto' and concrete. See correspondence (17/10/66) and diagram (7/9/66) in EH site file. The original support contains a coarse aggregate with brick/tile inclusions.

Layer type Render Layer 1 Specific condition Score 2
Thickness 5-1 cm

Comments

Most edges contain repairs and therefore it is difficult to assess the nature and quantity of plaster layers. However where the original edge was partially visible the following observations were made: the fine aggregate of render layer 1 is of a similar type to the aggregate in the support mortar, appearing rounded and pebble-like. However, it is of a smaller particle size.

Analysis undertaken

Method Unknown
Person Joyce Plesters Date 14/11/66

Comments Plesters notes a 'main coat of rough mortar'. Within this record this has been equated with render layer 1. However as the sample location is unknown, the 'rough mortar' noted could originate from the support mortar. See correspondence from Plesters dated

Layer type Ground Layer 1 Specific condition Score 2
Thickness 0.1 cm

Comments

A white ground was identified as a lime skim by Joyce Plesters (1966).

Analysis undertaken

Method Unknown
Person Joyce Plesters Date 14/11/66

Comments Plesters notes a 'thin white layer of lime plaster' over the 'main rough mortar'. This has been interpreted as ground layer 1. See correspondence dated 14/11/66 in EH site file.

Layer type	Paint Layer 1	Specific condition Score	2
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Thickness	.01 cm
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Comments

Animal glue was identified by Joyce Plesters (14/11/66) in the paint and plaster layers. She noted that it is rather unusual to find animal glue used as a medium in Roman wall painting, therefore it might have been added during previous restoration work. Pigments identified by Plesters include Egyptian blue (blue frit), yellow earth, a green, a red, and black.

Identified pigments	Colours
EGYPTIAN BLUE	BLUE
yellow earth	yellow
---	green
---	red
---	black

4 Audit Information: deterioration and damage, added materials, treatment

Property name	LULLINGSTONE ROMAN VILLA		
Region	South East	County	Kent
Location	Deep room		
Orientation	SOUTH WALL, NICHE		
Century 2 th	Date	Height (cm)95	Width (cm) 60

DETERIORATION AND DAMAGE

Deterioration phenomena

Type general erosion

Location entire surface

Comments Erosion probably occurred when the painting was buried.

Type loss

Location general

Comments Large horizontal loss across centre (approx 10 cm high)

ADDED MATERIALS

Accretions

Type cobwebs

Location general

Comments Should be removed.

Type dust

Location General

Comments

Type insect activity

Location General

Comments Insect activity was associated with a plastic foam which was placed on the painting by archaeologists as a protective measure (1958). It was kept covered until June 1966, when 'sand and packing materials' were removed at the request of A.N. Stewart, Chief Restorer. At this time the foam was discovered to have deteriorated and was infested with insect and mould growth, which had resulted in a blackish discolouration on the paint surface.

Type mould

Location General

Comments Insect activity was associated with a plastic foam which was placed on the painting by archaeologists as a protective measure (1958). It was kept covered until June 1966, when 'sand and packing materials' were removed at the request of A.N. Stewart, Chief Restorer. At this time the foam was discovered to have deteriorated and was infested with insect and mould growth, which had resulted in a blackish discolouration on the paint surface.

Repairs

Type modern plaster

Location central horizontal band of loss (10cm high), general minor losses, and edges of niche

Comments Appear to be a lime/sand mortar, but may be in a cement similar to that used for the backing support; see correspondence in EH site file.

Type cement

Location Reverse of painting: as backing for support

Comments In correspondence from A.N. Stewart (17/10/66) he suggested the use of a 'concrete backing' made of: 'a delta/bronze reinforcement mesh, extending the horizontals into the side walls... [and] a 3" concrete backing formed with Lytag aggregate, lime and sand'. Stewart refers to this as 'concrete' but there does not appear to be any cement used. See EH site files.

TREATMENT

Past Treatment

Type APPLICATION OF COATING **Date**

Person unknown

Comments Joyce Plesters (14/11/66) noted 'an appreciable proportion of animal glue' present in both paint and plaster layers. Plesters commented that it is unusual to find the use of an organic medium in Roman wall painting, and suggested the possibility of its use in the past as a restoration material.

Past Treatment

Type CLEANING **Date** 25/11/66

Person M. Keevil

Comments No details of cleaning method in EH site file.

Type CONSOLIDATION **Date** 25/11/66

Person M. Keevil

Comments Lime water, applied by spray, was used to consolidate the plaster.

Proposed Treatment

Type CLEANING **Date** 12/08/94

Person JD

Comments Surface cleaning should be undertaken to remove dirt, dust and cobwebs. [Timescale: 2 days within 3 years].

Type MONITORING CONDITION **Date** 12/08/94

Person JD

Comments The condition of the painting appears stable and no active deterioration was apparent. However, it would be a prudent measure to install environmental monitoring equipment to assess the stability of the surrounding microclimate and to assess the impact of the fan which has been placed directly in front of the niche. In addition, the painting should be inspected every 3 years.



Detail, south wall, niche



Deep room, general view to south