

Ancient Monuments Laboratory
Report 46/97

WALL PAINTING CONDITION AUDIT,
DOVER CASTLE, KENT

J Davies
S Stewart

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Summary

This condition audit of wall paintings at Dover Castle 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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Dover Castle 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.

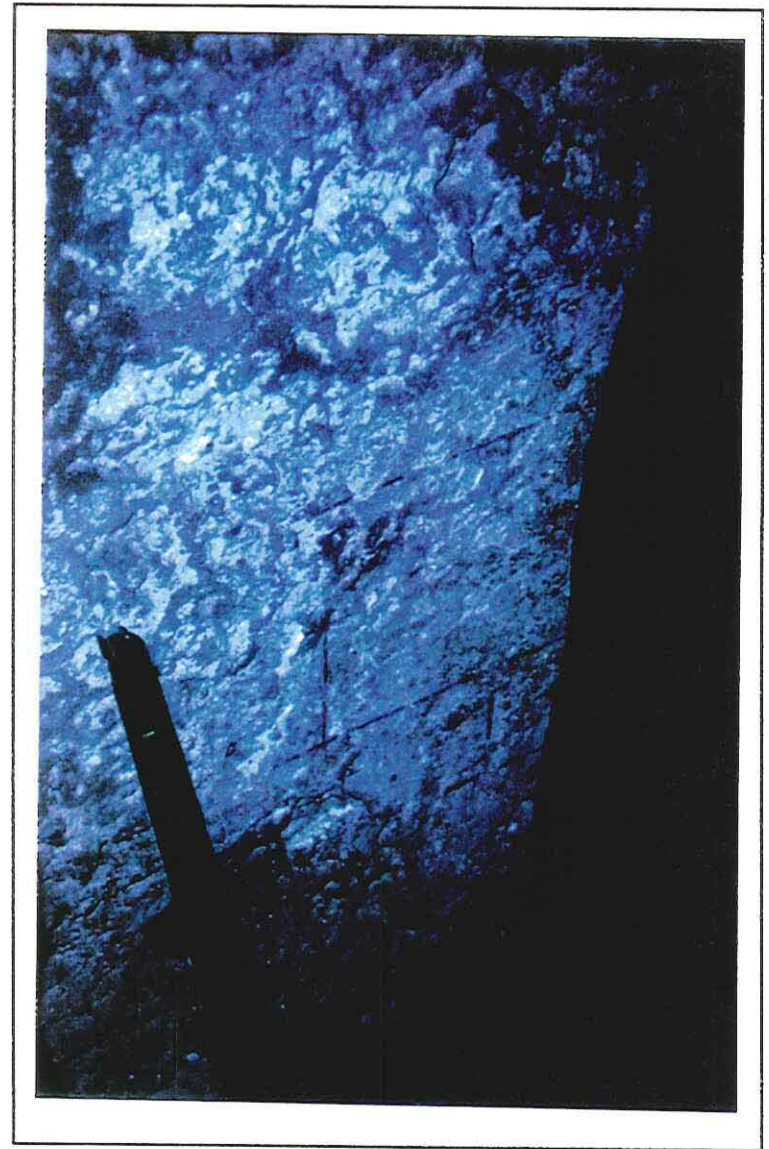
Contents

1 Regimental Museum

2 Great Hall



Great Hall, west wall, south end, detail painted plaster



Regimental Museum, north wall, detail masonry pattern

1 Wall Painting Record

Property name	DOVER CASTLE		
Region	South East	County	Kent
Location of painting	Regimental Museum		
Orientation	NORTH WALL, GROUND FLOOR		
Century 13 th	Date	Height (cm) 270	Width (cm) 190
Subjects included	Masonry pattern		

Description

The existing castle dates from the reign of Henry II (1154-89). The Pipe Rolls record substantial masonry works between 1168 and 1174, and again later during the 1180's. Work on the Keep is mentioned in 1181-82 and was continued until at least 1188. The inner bailey wall was started in 1185. There is documentary evidence that £1,000 was spent on the castle between 1205-14, and between 1217 and 1272 Henry III spent £7,500. Edward IV (1461-83) is reported to have spent £10,000 on the Keep, on work which included modernisation and decorative alterations to the window openings, doorways and fireplaces. In 1745 an extensive programme of alterations to the castle began and the Keep was reinforced to allow use of heavy equipment. The second storey state rooms originally rose through two stages. However the ceilings were replaced in the late 1790's by the 'bomb-proof arches' or brick vaults which now form the ceiling. The castle played a crucial defensive role during the first and second World Wars and the building remained occupied by the army until 1956. The castle became a national monument in 1963.

This area of masonry pattern is situated within an arcade niche on the north wall of the ground floor of the Regimental Museum (previously known as Keep Yard 4 and 5). The dimensions given above are those of the interior of the niche. Access to the painting is restricted (visible area is 70 cm high, and is 60cm above floor height). Width is unknown, but is approximately 50cm. Additional areas of design may occur under limewash which is present over the majority of the surface of the niche.

The area is currently presented as a display of a First World War trench, with three dummy figures, one of whom obscures the painting.

The painting was probably uncovered in the late 1950's when a limited excavation inside the curtain wall of the inner bailey was carried out. The painting was concealed behind a partition and the building continued in use as an office. By 1987 the building was leased to the Queen's Regiment for use as a museum, the partition was removed to allow the space to be used as a display area. Heating was inserted at some date prior to 1987, possibly when the area became a museum.

Photographic Record

Bibliography

Cook, A.M., Mynard, D.C. & Rigold, S.E. 'Excavations at Dover Castle, principally in the inner bailey', JBAA, 3rd ser., XXXI (1968).

Allen Brown, R., Dover Castle, Kent, English Heritage Guide, HMSO 1974, reprinted 1992, 1993.

Platt, C., Dover Castle, English Heritage Guide, English Heritage, London, 1988, reprinted 1990.

Keyser, C.E. A List of Buildings in Great Britain and Ireland having mural and other painted decoration..., London, 1883.

Tristram, E.W. with Bardswell, M., English Medieval Wall Painting, The Thirteenth Century', Oxford, 1950.

Colvin, H.M., ed., The History of the King's Works, III, 1485-1660 (Part 1), HMSO, London, 1965.

2 General Audit Information

Property name	DOVER CASTLE	County	Kent
Region	South East		
Location	Regimental Museum		
Orientation	NORTH WALL, GROUND FLOOR		
Century 13th	Date	Height (cm)270	Width (cm) 190
Auditor(s)	SS/JD	Start date	07/07/94

Overall condition score **4**

Recommendations

The condition of the plaster and original decoration is poor. The render is severely delaminating and the surface is covered with dirt. This deterioration can be presumed to be active as the building as a whole is exceptionally damp. In addition all areas are at risk from mechanical damage due to the display which has been positioned extremely close to the wall surface.

A programme of remedial conservation is therefore required in the very near future to stabilise the plaster as far as possible and to prevent further loss. This should include a preliminary recording phase (condition survey, photography, environmental survey) upon which an overall treatment strategy can be based. Treatment will probably include extensive readherence of the plaster layers to the support (grouting), insertion of repairs as necessary and surface cleaning. In addition a monitoring programme should be implemented. [Approximate timescale for treatment, 2 conservators, 2-3 weeks, as soon as possible].

3 Audit Information: Technique

Property name DOVER CASTLE
Region South East County Kent
Location Regimental Museum
Orientation NORTH WALL, GROUND FLOOR
Century 13th Date Height (cm) 270 Width (cm) 190
Auditor(s) SS/JD Start date 07/07/94

Overall Condition Score 4

Stratigraphy

Layer type Support Layer Specific condition Score 2

Thickness

Comments

Very soft white (Caen?) stone support. Stone is soft and crumbling.

Layer type Render Layer 1 Specific condition Score 4

Thickness 1-3 cm

Comments

Smoothing out layer for the support. Access is restricted, therefore a limited inspection was carried out. Charcoal inclusions may arise from kiln preparation of the lime. Brick/tile inclusions were visible, however it is not clear in which layer they occur.

Layer type Ground Layer 1 Specific condition Score 3

Thickness

Comments

Very thin plaster skim or limewash ground, obviously applied by brush when wet as vertical striations of coarse brushstrokes are visible in raking light. Some very fine sand aggregate appeared to be present.

Layer type Paint Layer 1 Specific condition Score 3

Thickness

Comments

Identified pigments Colours
--- red

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

Property name	DOVER CASTLE		
Region	South East	County	Kent
Location	Regimental Museum		
Orientation	NORTH WALL, GROUND FLOOR		
Century 13th	Date	Height (cm)270	Width (cm) 190

DETERIORATION AND DAMAGE

Deterioration phenomena

Type delamination (render layer)

Location Render layer 1.

Comments Render layer 1 is delaminating extensively from the support. Access was restricted and further investigation is required.

Type loss

Location General.

Comments Losses of paint, ground and plaster layers have occurred.

Type damp

Location General

Comments The wall is very damp and according to the Curator spalling of plaster from the walls throughout the building is common. Microbiological growth was noted on the wall above and to the right of the painted area.

Mechanical damage

Type cracking/fracturing

Location General

Comments Fine cracking has occurred throughout.

ADDED MATERIALS

Accretions

Type dirt
Location General
Comments Surface dirt.

Type dust
Location General
Comments Surface deposit.

Type cobwebs
Location General
Comments Extensive cobwebs.

Type unidentified deposit
Location General
Comments Unidentified surface deposit, possibly alveolar deterioration. Dripmarks also visible.

Type biodeterioration
Location Above painted area
Comments Microbiological growth was noted on the wall above and to the right of the painted area.

Coatings/Coverings

Type plaster
Location General
Comments Hard lime/sand plaster, 0.5 cm thick, in poor condition, overlies original plaster in many areas. It may be possible to uncover more of the original scheme by removal of this layer, but this is not certain as it may have been applied to cover damages.

Repairs

Type cement
Location Small patch, middle left.
Comments Possibly a white cement OR very dense lime rich mortar used as an edge repair, may be of the same type of white cement (?) noted in the Great Hall.

TREATMENT

Past Treatment

Type FILLS/REPAIRS INSERTION **Date**

Person Unknown

Comments A small fill is present to the middle left of the niche. Nothing is known about the date of this repair, although it is presumably post-dates the late 1950's uncovering of the painting. No treatment of the painting was carried out by K.J. Barakan during 1982 when she worked in the Great Hall.

Proposed Treatment

Type CLEANING **Date** 05/07/94

Person SS/JD

Comments Surface cleaning to remove dirt, dust and cobwebs would significantly improve the appearance of the painting.

Type FILLS/REPAIRS INSERTION **Date** 05/07/94

Person SS/JD

Comments Repairs are required.

Type FILLS/REPAIRS REMOVAL **Date** 05/07/94

Person SS/JD

Comments Removal of the hard white cement? repair is recommended.

Type GROUTING **Date** 05/07/94

Person SS/JD

Comments Grouting to re-attach the delaminating render to the support is urgent.

Type RECORDING AND DOCUMENTATION **Date** 05/07/94

Person SS/JD

Comments All areas should be recorded photographically and graphically.

Type UNCOVERING **Date** 05/07/94

Person SS/JD

Comments Removal of overlying plaster may reveal more areas of design.

1 Wall Painting Record

Property name	DOVER CASTLE		
Region	South East	County	Kent
Location of painting	Great Hall, The Keep		
Orientation	WEST WALL, SOUTH END		
Century 13 th	Date	Height (cm) 30	Width (cm) 30
Subjects included			
Border pattern			
Scrollwork			

Description

The existing castle dates from the reign of Henry II (1154-89). The Pipe Rolls record substantial masonry works between 1168 and 1174, and again later during the 1180's. Work on the Keep is mentioned in 1181-82 and was continued until at least 1188. The inner bailey wall was started in 1185. There is documentary evidence that £1,000 was spent on the castle between 1205-14, and between 1217 and 1272 Henry III spent £7,500. Edward IV (1461-83) is reported to have spent £10,000 on the Keep, on work which included modernisation and decorative alterations to the window openings, doorways and fireplaces. In 1745 an extensive programme of alterations to the castle began and the Keep was reinforced to allow use of heavy equipment. The second storey state rooms originally rose through two stages. However the ceilings were replaced in the late 1790's by the 'bomb-proof arches' or brick vaults which now form the ceiling. The castle played a crucial defensive role during the first and second World Wars and the building remained occupied by the army until 1956. The castle became a national monument in 1963.

A small fragment of century scrollwork and border pattern in red on a white ground is present on the west wall, south end of the Great Hall, on the second floor of the Keep. The date of this decoration is unclear but is possibly 13th or 14th century. Two floors of accommodation are present and the first and second storeys have an identical plan. However there is clear architectural evidence that the second storey rooms were the principal state rooms, having higher ceilings, direct access to the main Chapel and more ornamental details, such as, richly decorated window embrasures.

This fragment of wall painting was conserved by K.J. Barakan (Restorer I, Conservation Studio, DOE) in April 1982. A copy of her report on the conservation programme is filed in the English Heritage, Wall Painting Conservation Section record archive.

Photographic Record

29/6/94 EH 'current' contact photo files; Interior of St Mary's Church, Dec 1987, J910247, J870635.

Photograph search, DOE files, EH photo library (JD24/03/95)
May 1982

A10698/1-10 'Medieval wall painting' in Great Hall.
A(CN)10718/1-12 'Medieval wall painting' in Great Hall.

Photographic prints in studio files.

'Photographs of wall painting at Dover Castle (taken by Mrs K.J.Barakan in April, 1982) File:- with DOE photographs.

5-82

*A10698/1 Overall view of wall area with painted fragment.

*A10698/2 Wall adjacent to painted fragment, showing evidence of moisture movement.

*A10698/3 Wall adjacent to painted fragment, showing evidence of moisture movement.

*A10698/4 Overall of painted fragment, with grey scale.

2 General Audit Information

Property name	DOVER CASTLE	County	Kent
Region	South East		
Location	Great Hall, The Keep		
Orientation	WEST WALL, SOUTH END		
Century 13th	Date	Height (cm) 30	Width (cm) 30
Auditor(s)	SS/JD	Start date	07/06/94

Overall condition score **4**

Recommendations

This fragment is an important testimony to the original appearance of the room. However, its condition is poor and further loss appears to be occurring. Remedial treatment is therefore required. This should include minor grouting, edge repairs, removal of unsuitable repairs and flake fixing [Time scale: 2 conservators, 1 week, as soon as possible].

The fragment should be visually monitored on a regular basis after treatment.

3 Audit Information: Technique

Property name	DOVER CASTLE		
Region	South East	County	Kent
Location	Great Hall, The Keep		
Orientation	WEST WALL, SOUTH END		
Century 13 th	Date	Height (cm) 30	Width (cm) 30
Auditor(s)	SS/JD	Start date	07/06/94

Overall Condition Score 4

Stratigraphy

Layer type	Support Layer	Specific condition Score	3
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Thickness

Comments

The support is composed of Kent ragstone with Caen stone dressings. The wall is very damp, causing flaking of the limewash and spalling of the plaster and pointing repairs. Salt efflorescences are also visible. Hard impervious repointing is apparent. The environmental conditions within the building are extreme; it was reported by the custodian that sea fog enters the building on occasion.

Layer type	Render Layer 1	Specific condition Score	3
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Thickness 2-3 cm

Comments

Lime/sand render, aggregate size mixed, largest particles are up to 0.5cm.

Layer type	Render Layer 2	Specific condition Score	3
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Thickness 1-2 cm

Comments

Second coat of plaster is quite similar in mix (visually) to render layer 1, possibly with coarser aggregate.

Layer type	Ground Layer 1	Specific condition Score	3
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Thickness

Comments

Limewash ground? or thin lime rich, with a small amount of very fine aggregate, plaster skim. Surface is very smooth, application is compacted. Layer has a slightly pink-cream colour.

Layer type	Paint Layer 1	Specific condition Score	3
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Thickness

Comments

Red foliate decoration.

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

Property name	DOVER CASTLE		
Region	South East	County	Kent
Location	Great Hall, The Keep		
Orientation	WEST WALL, SOUTH END		
Century	13th	Date	
		Height (cm)	30
		Width (cm)	30

DETERIORATION AND DAMAGE

Deterioration phenomena

Type delamination (render layer)

Location General to both render layers.

Comments Render layers are separating from the support and from each other.

Type loss of cohesion (render layer)

Location General to both render layers.

Comments Render has become friable.

Type damp

Location Support

Comments Support is very obviously damp.

Type general erosion

Location Extensive

Comments All areas have suffered deterioration.

Type loss

Location Render and paint layers. 30-50% loss.

Comments Extensive loss of original. It appears that areas of the fragment have recently been lost as edge repairs are visible to areas where original plaster is no longer present. The render layers seem to be actively deteriorating.

Type losses (paint layer)

Location General

Comments Powdering of the paint layer has occurred.

Type flaking

Location General

Comments Some limited flaking of the paint layer has occurred.

Mechanical damage

Type scratches

Location General

Comments Armour was previously hung in the room and some of the damage may have occurred during routine maintenance. Some smears of a black deposit (rubber from padded ladder ends?) appears to be associated with this damage.

Type cracking/fracturing

Location Render layers.

Comments Render layers are fragile and any mechanical pressure could cause damage.

Type substantial losses

Location General

Comments Further losses of the fragment appear to have occurred between 1982 and 1994.

ADDED MATERIALS

Accretions

Type cobwebs

Location General

Comments Extensive accumulation of cobwebs.

Coatings/Coverings

Type unidentified

Location Paint and ground layers.

Comments Some smears of a black deposit (rubber from padded ladder ends?) are visible.

Repairs

Type cement

Location Large fragment

Comments Possibly cement, very white, compact and hard, and appears to be associated with losses. Cement repairs seem to follow the form of original plaster which is lost, and the repairs now stand proud of the support. Traces of original render are present on the support.

Type modern lime plaster

Location Smaller fragment edge repairs.

Comments A lime mortar has been used for edging repairs.

Type modern lime plaster

Location General

Comments A second, darker, lime mortar has also been used for repairs.

TREATMENT

Past Treatment

Type CONSOLIDATION **Date** 01/04/82

Person K.J.Barakan

Comments According to records in Conservation Studio files, friable powdery paint was consolidated with 'several sprays of lime-water so that loose parts were fixed'.

Type FILLS/REPAIRS INSERTION **Date** 01/04/82

Person K.J.Barakan

Comments According to records in Conservation Studio files, 'Previous cement repairs were removed with great difficulty and replaced with lime and sand mixture sometimes reinforced with calcium casein'.

Type FILLS/REPAIRS REMOVAL **Date** 01/04/82

Person K.J.Barakan

Comments According to records in Conservation Studio files, 'Previous cement repairs were removed with great difficulty and replaced with lime and sand mixture sometimes reinforced with calcium casein'.

Type FLAKE FIXING **Date** 01/04/82

Person K.J.Barakan

Comments According to records in Conservation Studio files, 'loose parts were fixed and injections of lime were applied'.

Type GROUTING **Date** 01/04/82

Person K.J.Barakan

Comments According to records in Conservation Studio files, 'Large cavities were filled by injections of calcium casein mixed with fine silver sand'.

Proposed Treatment

Type CONSOLIDATION **Date** 05/07/94

Person SS/JD

Comments Consolidation of the friable paint layer is required.

Type FILLS/REPAIRS INSERTION **Date** 05/07/94

Person SS/JD

Comments Repairs to render layer and edge repairs to support the original layers are urgently required.

Type FILLS/REPAIRS REMOVAL **Date** 05/07/94

Person SS/JD

Comments Removal of unsuitable repairs may assist in the stabilisation of the painting.

Type FLAKE FIXING **Date** 05/07/94
Person SS/JD
Comments Re-fixing of paint flakes is required.

Type GROUTING **Date** 05/07/94
Person SS/JD
Comments Grouting to consolidate the friable render layers and to readhere them to each other and the support is required.
