

Ancient Monuments Laboratory
Report 17/97

WALL PAINTING CONDITION AUDIT,
LITTLE CASTLE, BOLSOVER
CASTLE, DERBYSHIRE

J Davies
S Stewart

AML reports are interim reports which make available the results of specialist investigations in advance of full publication. They are not subject to external refereeing and their conclusions may sometimes have to be modified in the light of archaeological information that was not available at the time of the investigation. Readers are therefore asked to consult the author before citing the report in any publication and to consult the final excavation report when available.

Opinions expressed in AML reports are those of the author and are not necessarily those of the Historic Buildings and Monuments Commission for England.

Ancient Monuments Laboratory Report 17/97

WALL PAINTING CONDITION AUDIT,
LITTLE CASTLE, BOLSOVER CASTLE,
DERBYSHIRE

J Davies
S Stewart

Summary

This condition audit of wall paintings at Little Castle, Bolsover 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.

Authors' addresses :-

Ms J Davies
PAINTINGS CONSERVATION STUDIO
English Heritage
Inner Circle Regents Park
London
NW1 4PA

Ms S Stewart
PAINTINGS CONSERVATION STUDIO
English Heritage
Inner Circle Regents Park
London
NW1 4PA



Little Castle, Bolsover Castle Derbyshire

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

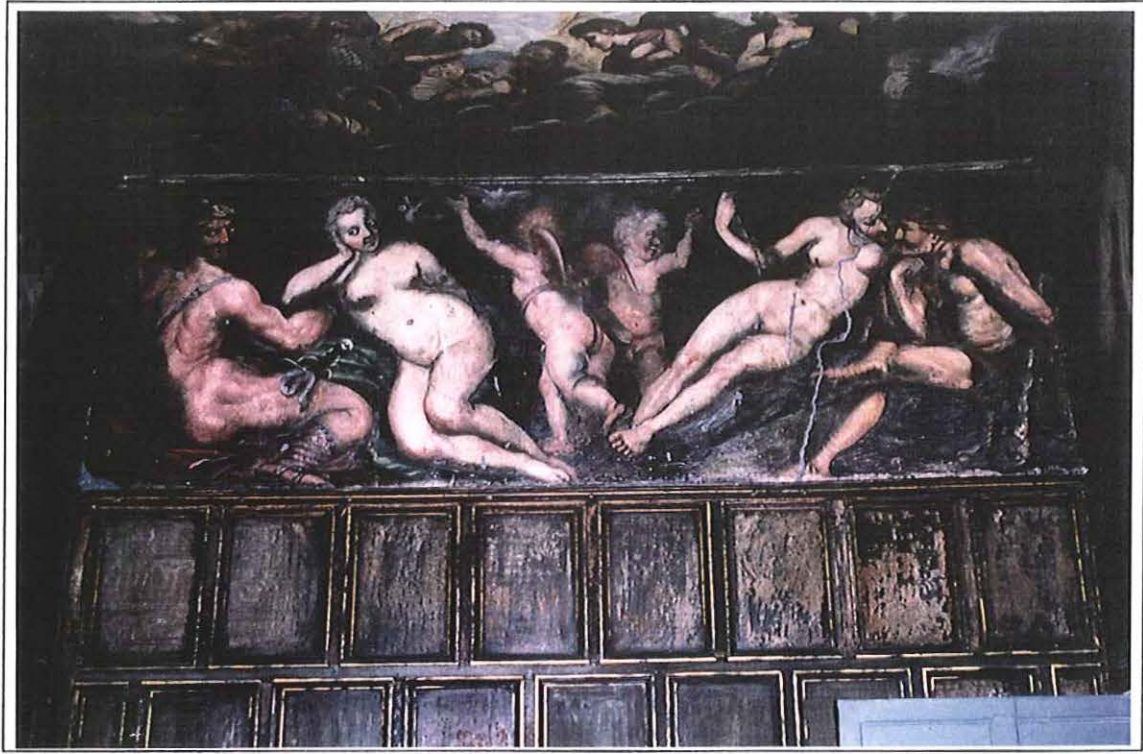
- 1** Ante-chamber
- 2** Hall
- 3** Elysium Room
- 4** Heaven Room

Hall, *Nemecan Lion* lunette, detail centre, in raking light



Hall, *Nemecan Lion* lunette, detail centre





Elysium Room, north wall, frieze



Heaven Room, west wall, frieze

1 Wall Painting Record

Property name	BOLSOVER CASTLE		
Region	Midlands	County	Derbyshire
Location of painting	Ante-Chamber		
Orientation	NORTH WEST AND NORTH EAST WALLS		
Century 17 th	Date	Height (cm) 157	Width (cm)
Subjects included			
Four elements			
Human temperaments			

Description

This audit incorporates the results of an examination of the paintings and subsequent report undertaken in November 1994 ('Bolsover Little Castle: Condition Audit of the Wall Paintings', Wall Painting Section).

THE BUILDING

Although there is thought to have been a castle at Bolsover since the twelfth century, the present buildings are the remains of a seventeenth-century mansion, erected on the site of earlier structures.

The Little Castle was designed as a romantic version of a medieval keep by the architect Robert Smithson for Sir Charles Cavendish. The building of the castle commenced between 1608 and 1613, and was supervised by John Smithson, following the death of his father in 1614. Sir Charles Cavendish died in 1617 and the building work continued under the orders of William Cavendish, son of Charles. (Faulkner, 1993:22)

As well as the wall paintings described in this report the Little Castle also contains other paintings and decorative schemes of artistic and historic importance; for example, the Pillar Chamber, the Star Chamber and the Marble Closet all contain paintings on canvas or timber. Paintings executed on supports other than stone or plaster are beyond the remit of the Wall Painting audit and are dealt with by the Easel Painting Conservation Section.

THE WALL PAINTING AUDIT

'The purpose of this investigation has been to assess the present condition of the highly important 17th-century wall paintings in Bolsover Little Castle. These include the schemes found in the Ante-room and Hall on the ground floor, and the Elysium and the Heaven rooms on the first floor.'

'Previous documentation held at the EH Conservation Studio (Regents Park) records that the paintings were inspected in 1964 (2/3/64 A.N.Stewart) and extensively restored throughout the 1970's (report 10/12/76 M.E.Keevil) as part of a programme of renovation to the building. A further brief inspection was made in 1984 (14/6/84 D.Waterhouse).'

'What is clear from these records, and from previous photography, is that all areas of wall painting have been subject to numerous interventions in recent years in response to their continuing deterioration. The purpose of this present investigation has therefore been two-fold; firstly, to ascertain whether this deterioration is still active and what remedial measures and monitoring requirements need to be implemented; and secondly, to assess the suitability of past treatments and to consider the feasibility of adjusting the presentation of these high-quality paintings.'

THE ANTE-ROOM

'The Ante-room, to the left of the entrance porch, was decorated for Sir William Cavendish. The four paintings are situated in lunettes above the panelling and depict The Four Elements (on the north-west wall) and The Human Temperaments (on the north-east and south-east walls). The paintings are by an

unknown artist and follow a set of prints of 'The Four Temperaments', by Pieter Jode (1570-1634), after Martin de Vos (1531-1603). The technique of the paintings is oil on plaster with incised lining out in imitation of ashlar.'

PREVIOUS INSPECTIONS AND CONSERVATION

'Both the report of 1964 and 1976 describe the alarming condition of the paintings prior to the conservation campaign. A.N.Stewart notes the severe flaking of the paint layer on all of the paintings but particularly on The Four Elements (north-west wall), as well as general cracking and large areas of loss. He also mentions that all the paintings had previously been treated with a wax coating (applied during the 1930's) which had subsequently darkened. In particular he notes that 'condensation and surface chill is everywhere'.

'M.E.Keevil also notes this darkened coating which he refers to as varnish. In addition he mentions that the plaster is breaking away from the walls and that the ground is cracking' resulting in large losses to the paint layer.'

'The paintings were subsequently conserved during the 1970's. The dirt 'was removed with soap solution and the layer of discoloured varnish with a mixture of solvents. The disintegrating plaster was revitalized using PVA as an adhesive and the areas of missing plaster were filled with cellulose filler. These were then smoothed down to level of the painted surface and ground colour using Plaka casein waterproof paint as a base was used. The areas of missing paint were then retouched to match the original paint using oil colour from which the excess oil had been removed. A mixture of a synthetic resin with refined beeswax was used to give the final protective glaze'.

However, by 1984, the inspection of the paintings by D.Waterhouse mentions that opaque patches had already appeared on the varnish layer of the painting of the fisherman and woman (north-east wall), as well as two small paint losses on the dress of the woman. Small losses are also noted in the painting of the Four Elements (north-west wall) and also in the painting of the old man and young woman (south-east wall).'

Photographic Record

29/6/94 EH 'current' contact photo files; no images of Ante-room.

Bolsover Castle, Little Castle, wall paintings photograph list.

* = copy in studio file ^ = copy in report 1994

- *A/2719/12 August 1953 Ante-room, north corner.
- *A/2719/13 August 1953 Ante-room, east corner.
- *A/2719/14 August 1953 Ante-room, north-east wall, north side.
- *A/2719/15 August 1953 Ante-room, south-east wall.
- *A/2719/16 August 1953 Ante-room, north-west wall.
- *A/2719/17 August 1953 Ante-room, north-east wall, south side.

9/1958 A5123 Ante-room A5123/12-15.

30-6-65 A6803 Ante-room A6803/1-4.

- *A6803/1 June 1965 Ante-room, north-east wall, south side.^
- *A6803/2 June 1965 Ante-room, north-east wall, north side.
- *A6803/3 June 1965 Ante-room, north-west wall.^
- *A6803/4 June 1965 Ante-room, south-east wall.^

- *A7002/5 Dec. 1965 Interior view of room, similar structure to Ante-room.
- *A7002/11 Dec. 1965 Interior view, Ante-room, south-east wall.
- *A7002/22 Dec. 1965 Interior view of Bakery? note evidence of structural movement. Bakery is situated below Ante-room.

21-10-74 A9234 Ante-room A9234/1-3+9.

- *A9234/1 Oct. 1974 Ante-room, north-west wall.^
- *A9234/2 Oct. 1974 Ante-room, north-east wall, north side.
- *A9234/3 Oct. 1974 Ante-room, south-east wall.^

*A9234/9 Oct. 1974 Ante-room, north-east wall, south side.^

*A(CN)9642/1 June 1976 Ante-room, north-west wall.

*A(CN)9642/4 June 1976 Ante-room, south-east wall.

*A(CN)9642/8 June 1976 Ante-room, north-east wall.

*A(CN)9642/9 June 1976 Ante-room, north-east wall.

*A(CN)9642/10 June 1976 Ante-room, north-east wall.

29-10-76 A(CN)9642 Anteroom A(CN)9642/1 +4 +8-10.

Bibliography

Faulkner, P.A., 'Bolsover Castle, Derbyshire', E.H. Guide Book, E.H., London, 1993. first published by E.H. 1985.

2 General Audit Information

Property name	BOLSOVER CASTLE	County	Derbyshire
Region	Midlands		
Location	Ante-Chamber		
Orientation	NORTH WEST AND NORTH EAST WALLS		
Century 17 th	Date	Height (cm) 157	Width (cm)
Auditor(s)	SS/JD	Start date	30/11/94

Overall condition score **4**

Recommendations

OVERALL RECOMMENDATIONS: ANTE-ROOM AND HALL:

'The paintings are still actively deteriorating in these rooms, which has most likely been caused by unsatisfactory environmental conditions and probably accelerated by the presence of thick varnish layers. The paintings require emergency remedial treatment and a programme of environmental monitoring in order to rectify the interior environments of the two rooms. This should include internal and external relative humidity and temperature measurements and, in particular, surface temperature measurements to ascertain whether condensation is occurring.'

'Following this an investigation should also be made into the feasibility of partially removing the varnish layer in both areas. This would not only improve the appearance of the paintings, which have now darkened, but also alleviate the potential for their future deterioration. However, as the paintings have been extensively retouched, it should be considered that such an intervention may be technically complicated.'

SPECIFIC RECOMMENDATIONS: THE ANTE-ROOM

'The painting in most urgent need of attention is The Four Elements scene on the north-west wall which urgently requires flake-fixing to stabilise the paint layer. Generally, however, although the other areas of painting are heavily restored and varnished, they appear to be in a stable condition. All the schemes would benefit from surface cleaning to remove the thick obscuring layer of dust which covers the surface.'

'Nevertheless, it is not clear whether the other areas of painting are also susceptible to the delamination of the paint layer affecting the Four Elements scheme. It is evident from the previous inspection reports that the paintings have a history of deterioration. This has probably been caused by adverse environmental conditions and may also be exacerbated by the impermeable varnish layer present throughout. This coating would prohibit the movement of moisture through the wall, causing an accumulation of soluble salts and leading to weakening and exfoliation of the paint/render layers. In addition, fluctuations in atmospheric conditions would lead to expansion and contraction of the coating, exerting tension on the paint layer. The blanching of the varnish layer may be an indication that this is actively occurring. A programme of environmental monitoring is therefore essential to identify the decay mechanisms involved as there are clear indications of deterioration associated with moisture and fluctuating temperature and humidity.'

'It might also be suggested that a partial or complete removal of the varnish layer be attempted. However, photography conducted prior to the conservation programme during the 1970's shows that the original paint layer is extremely damaged and received extensive retouching. An attempt to clean to the original paint layer may prove hazardous and probably counter-productive. This option should therefore only be considered if the coating can be identified as actively contributing to the deterioration of the paintings during a programme of environmental monitoring.'

'In summary, the paintings in the Ante-room require:

SHORT-TERM

- surface cleaning to remove the obscuring layer of dirt and dust

- emergency fixing to the Four Elements scheme on the north-west wall

- a programme of environmental monitoring to identify the active decay mechanisms and with the aim of controlling or modifying the environmental conditions. This should include surface temperature measurements to ascertain whether condensation is still occurring.

LONG-TERM

- possible partial cleaning of the varnish layer

3 Audit Information: Technique

Property name	BOLSOVER CASTLE		
Region	Midlands	County	Derbyshire
Location	Ante-Chamber		
Orientation	NORTH WEST AND NORTH EAST WALLS		
Century 17 th	Date	Height (cm) 157	Width (cm)
Auditor(s)	SS/JD	Start date	30/11/94

Overall Condition Score 4

Stratigraphy

Layer type	Support Layer	Specific condition Score	3
-------------------	---------------	---------------------------------	---

Thickness

Comments

Sandstone support. There is a history of structural movement in the building and damage caused by salt activity was visible to the exterior wall. Thickness of support varies.

Layer type	Render Layer 1	Specific condition Score	3
-------------------	----------------	---------------------------------	---

Thickness 1-2 cm

Comments

Feigned ashlar pattern is incised onto the render. It is unclear whether this finish was intended as a preparatory technique as it also occurs on unpainted plaster and therefore may not be intentionally associated with the painting. The render is white, probably containing a high percentage of lime, or white aggregate. Some fine black aggregate particles were also noted. Hair is also present in the render.

Layer type	Ground Layer 1	Specific condition Score	3
-------------------	----------------	---------------------------------	---

Thickness

Comments

Red/brown ground layer visible as a half tone and in areas of abrasion. Flaking appears to occur at the interface between ground and render layers. Ground appears to be bound in a drying oil.

Layer type	Paint Layer 1	Specific condition Score	2
-------------------	---------------	---------------------------------	---

Thickness

Comments

Heavily obscured by repainting, retouching and thick varnish. Colours include black, white, yellow, green, blue and red.

Identified pigments Colours

- black
- white
- yellow
- green
- blue
- red

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

Property name	BOLSOVER CASTLE		
Region	Midlands	County	Derbyshire
Location	Ante-Chamber		
Orientation	NORTH WEST AND NORTH EAST WALLS		
Century 17 th	Date	Height (cm) 157	Width (cm)

DETERIORATION AND DAMAGE

Deterioration phenomena

Type flaking

Location North west wall, 'Elements' lunette.

Comments Original paint and ground layers are separating from the underlying render. The flaking is extensive and potentially severe. Paintings on the other walls may also be undergoing the first stages of this type of deterioration.

Type blanching

Location Several limited areas.

Comments Blanching may be due to condensation on the surface varnish of the paintings.

Type coating - deterioration

Location Several limited areas.

Comments In some places the varnish appears to be delaminating slightly from the underlying paint.

Type delamination (render layer)

Location Several limited areas.

Comments There is some delamination of the render from the support. This occurs in 'pockets' which are secure at the edges, possibly because they have previously been partially grouted/repared. Probably not active deterioration.

Type cracking

Location General.

Comments Not extensive - all large cracks are old and probably due to structural movement - all cracks have been filled and retouched.

Mechanical damage

Type scratches

Location General.

Comments A few light scratches - appears to post-date varnish- at low level.

ADDED MATERIALS

Accretions

Type dirt

Location General surface.

Comments Thick obscuring layer.

Type dust

Location General surface.

Comments Thick obscuring layer.

Coatings/Coverings

Type synthetic varnish

Location Surface.

Comments Very thick and shiny - applied down to the top of the panelling - a few areas of original paint have been missed just above the panelling and these appear fairly matt. Therefore it can be seen that the varnish considerably alters the appearance of the painting.

Type repainting

Location Surface.

Comments Retouching and some overpainting. All carried out in oil paint (pers. comm. A. Buckley). Applied during previous treatment c. 1976.

Repairs

Type unidentified

Location Several losses and cracks.

Comments Deep repairs were carried out by a builder using an unknown material. Surface repairs were undertaken by the EH conservation studio using 'Polyfilla', which is visible at low level in the corners of lunettes. (Pers. comm. A. Buckley)

TREATMENT

Past Treatment

Type APPLICATION OF COATING **Date** 01/01/30

Person Unknown

Comments A report on the condition of the paintings by A.N.Stewart, Chief Restorer (02/03/64) (EH correspondence file) states:

'Ground floor. The Ante Room... The heavy coats of wax, now darkened, were applied in 1930, these should be removed... and old repairs and retouchings removed where needed.'

Past Treatment

Type UNSPECIFIED **Date** 01/01/60

Person A.N.Stewart

Comments A letter in EH correspondence files (24/01/64 B.T.Wincap Architect to F.L.Rothwell Superintending architect) stated the following: 'Mr Bailey has asked me to write to you about the wall paintings. The last time I visited the Custodian drew my attention to their condition. Damp and condensation appear to be causing deteriorations in several places, notably the Great Hall. Can they be examined by an expert who should be asked to give advice on treatment and future maintenance.'

A report on the condition of the paintings by A.N.Stewart, Chief Restorer (02/03/64) also noted:

'It will be seen... that there is a vast amount of work to be carried out which will take some years to complete, as it is dependent on the roofs (sic) and structure being repaired before we start restoring the paintings on plaster. We will certainly have to face them for protection against vibrations but some repairs to loose plaster should be carried out in the meantime as there is danger of loss. Condensation and surface chill is everywhere, especially on the plaster lunettes. This will not clear up until the structure is restored, and varying atmospheric conditions are taking their toll... work at the Castle would have to be carried out during the summer months, it would be impossible at any other time of year.'

Past Treatment

Type MONITORING CONDITION **Date** 02/03/64
Person A.N.Stewart

Comments A report on the condition of the paintings by A.N.Stewart, Chief Restorer (02/03/64) (EH correspondence file) states:

'Ground floor. The Ante Room.

The ceiling is a plain groined vault, the ribs are painted to represent stone and flow up to painted bosses. There are four painted lunettes 10' x 5'2" each, all in oil. The plaster has been scribed to imitate stonework.

(a) An Architectural Design.

This has extremely bad flaking which has grown so friable that it will be impossible to save some areas. The painting has had large areas of paint and plaster loss in the past which has been repaired and repainted. Old fillings and retouchings can be seen everywhere. There is loss along the scribings of the stone. Cracks appear here and there. A heavy coat of wax has been applied which has darkened considerably.

(b) Man and Woman in Boat with Cargo of Fish.

Flaking occurs here and there, also cracks. Repairs and retouchings occur, and loss along scribings. A heavy coat of wax has been applied which has darkened.

(c) Man in Armour, with Woman and Child. Woman has Vegetables in Apron and carries Dog, other figures can be seen.

Bad vertical fractures, and loose portions of painted plaster, flaking, extensive repairs and retouchings, loss along scribings. A heavy discoloured coat of wax covers everything.

(d) Vice tempting Virtue. An Old Man offers jewels to a Lady who averts her gaze. She has an open Book, and there is a Celestial Globe on the right.

Vertical fractures and flaking, loss along scribings. Repairs and repaintings. A heavy coat of wax has been applied which has darkened.

RECOMMENDATIONS

All paintings, which are in oil, have been affected by condensation and varying atmosphere in the Keep [Little Castle]. The heavy coats of wax, now darkened, were applied in 1930, these should be removed. This has to a certain extent contributed to the extensive flaking everywhere, as the wax provided a barrier to the damp seeping through the wall. In the case of (a), it will be necessary to more or less repaint the whole mural, care being taken to preserve any fragments of the original to build up from. In all paintings loose portions of painted plaster must be cut out and replaced, and old repairs and retouchings removed where needed. All fractures filled and retouched to original. A certain amount of flaking can be held... One of the painted Bosses from the ceiling has fallen and will have to be replaced in situ.

Past Treatment

Type MONITORING CONDITION **Date** 02/03/64
Person A.N.Stewart

Comments A report on the condition of the paintings by A.N.Stewart, Chief Restorer (02/03/64) (EH correspondence file) states:

'Ground floor. The Ante Room.

The ceiling is a plain groined vault, the ribs are painted to represent stone and flow up to painted bosses. There are four painted lunettes 10' x 5'2" each, all in oil. The plaster has been scribed to imitate stonework.

(a) An Architectural Design.

This has extremely bad flaking which has grown so friable that it will be impossible to save some areas. The painting has had large areas of paint and plaster loss in the past which has been repaired and repainted. Old fillings and retouchings can be seen everywhere. There is loss along the scribings of the stone. Cracks appear here and there. A heavy coat of wax has been applied which has darkened considerably.

(b) Man and Woman in Boat with Cargo of Fish.

Flaking occurs here and there, also cracks. Repairs and retouchings occur, and loss along scribings. A heavy coat of wax has been applied which has darkened.

(c) Man in Armour, with Woman and Child. Woman has Vegetables in Apron and carries Dog, other figures can be seen.

Bad vertical fractures, and loose portions of painted plaster, flaking, extensive repairs and retouchings, loss along scribings. A heavy discoloured coat of wax covers everything.

(d) Vice tempting Virtue. An Old Man offers jewels to a Lady who averts her gaze. She has an open Book, and there is a Celestial Globe on the right.

Vertical fractures and flaking, loss along scribings. Repairs and repaintings. A heavy coat of wax has been applied which has darkened.

RECOMMENDATIONS

All paintings, which are in oil, have been affected by condensation and varying atmosphere in the Keep [Little Castle]. The heavy coats of wax, now darkened, were applied in 1930, these should be removed. This has to a certain extent contributed to the extensive flaking everywhere, as the wax provided a barrier to the damp seeping through the wall. In the case of (a), it will be necessary to more or less repaint the whole mural, care being taken to preserve any fragments of the original to build up from. In all paintings loose portions of painted plaster must be cut out and replaced, and old repairs and retouchings removed where needed. All fractures filled and retouched to original. A certain amount of flaking can be held... One of the painted Bosses from the ceiling has fallen and will have to be replaced in situ.

Past Treatment

Type CLEANING **Date** 10/12/76

Person M.E. Keevil

Comments A report on conservation treatment, by M.E. Keevil (10-12-76) (EH correspondence file) states:

'Ante Room.

Four mural paintings in oil on plaster ground covering the stonework in the spandrels of the vaulting, measuring 10ft 6ins at base by 5ft 2ins at the highest point.

Subject.

1. Architectural Composition
2. Fishermans Return
3. The Provisioner
4. Corruption and virtue

Condition.

The paintings were covered with a thick layer of dirt and discoloured varnish. The plaster was breaking away from the walls and severe cracking of the ground taking place. Craquelure of the paint surface was taking place and there were large areas of missing paint. Severe cracks in painting of 'The Provisioner' were due to geological movement.

Treatment.

The layer of dirt was removed with soap solution and the layer of varnish with a mixture of solvents. The disintegrating plaster was revitalised using PVA as an adhesive and areas of missing plaster were filled with cellulose filler. These were then smoothed down to level of the painted surface and ground color using Plaka casein waterproof paint as a base was used. The areas of missing paint were then retouched to match the original paint using oil colour from which the excess oil had been removed. A mixture of a synthetic resin with refined beeswax was used to give the final protective glaze.

The ceiling has a plain groined vault, the ribs of which have been painted to imitate moulded stone with bosses at the intersections.'

Past Treatment

Type CONSOLIDATION **Date** 11/12/76

Person M.E. Keevil

Comments A report on conservation treatment, by M.E. Keevil (10-12-76) (EH correspondence file) states:

'The disintegrating plaster was revitalised using PVA as an adhesive and areas of missing plaster were filled with cellulose filler.'

Past Treatment

Type PRESENTATION/REINTEGRATION **Date** 12/12/76

Person M.E. Keevil

Comments A report on conservation treatment, by M.E. Keevil (10-12-76) (EH correspondence file) states:

'...missing plaster were filled with cellulose filler. These were then smoothed down to level of the painted surface and ground colour using Plaka casein waterproof paint as a base was used. The areas of missing paint were then retouched to match the original paint using oil colour from which the excess oil had been removed... The ceiling has a plain groined vault, the ribs of which have been painted to imitate moulded stone with bosses at the intersections.'

Past Treatment

Type APPLICATION OF COATING **Date** 13/12/76

Person M.E. Keevil

Comments A report on conservation treatment, by M.E. Keevil (10-12-76) (EH correspondence file) states:

'A mixture of a synthetic resin with refined beeswax was used to give the final protective glaze.'

Past Treatment

Type MONITORING CONDITION **Date** 02/03/78

Person P.J. Keevil

Comments A memo on state of work by P.J. Keevil (02-03-78) (EH correspondence file) states:

'Ante Room
Finished, final dust, etc.'

Past Treatment

Type UNSPECIFIED **Date** 13/04/78

Person M.R. Apted

Comments A report on the restoration at the Little Castle by M.R. Apted (13/04/78) states:

'I was asked to visit Bolsover with representatives of IAM, AM Works and the Regent's Park Conservation centre because lack of clearly defined policy had been hindering progress and because it was thought my previous experience with painted decoration in Scotland might be helpful. I thought the paintings were being over-restored, but since with the exception of the 'Hell' room [Elysium Room] the principal scenes had already been largely completed I recommended that with the exception of that one room our existing policy should be carried to its logical conclusion...'

Past Treatment

Type MONITORING CONDITION **Date** 14/06/84

Person D. Waterhouse

Comments An inspection of the wall paintings in the Little Keep by D.J. Waterhouse (14-06-84) (EH correspondence file) was carried out and the following was reported:

'Ante Room

Painting of Fisherman and Woman - Damp penetrating through which has crystallized the varnish showing white opaque patches. Two small paint losses on dress of woman, approx 1/2" x 1/4". The varnish needs to be removed and the paint losses retouched.

Painting of Columns on End Wall - In need of revarnish and a small paint loss in the sky, approx 1/2" x 1/2".

Painting of Hunting Scene - In need of revarnish.

Painting of Temptation - Two paint losses under the nose of old man, approx 1/4" x 1/4". In need of revarnish.

Proposed Treatment

Type CLEANING **Date** 01/12/94

Person SS/JD

Comments Surface cleaning could considerably improve the appearance of the paintings.

Type ENVIRONMENTAL MONITORING **Date** 01/12/94

Person SS/JD

Comments A programme of environmental monitoring is essential to identify any active decay mechanisms, as there are clear indications of deterioration associated with moisture and fluctuating temperature and humidity.

Type FLAKE FIXING **Date** 01/12/94

Person SS/JD

Comments Flake fixing is urgently required.

1 Wall Painting Record

Property name	BOLSOVER CASTLE		
Region	Midlands	County	Derbyshire
Location of painting	Hall		
Orientation	WEST AND NORTH WALLS		
Century 17 th	Date	Height (cm) 250	Width (cm) 315
Subjects included	Labours of Hercules		

Description

This audit incorporates the results of an examination of the paintings and subsequent report undertaken in November 1994 ('Bolsover Little Castle: Condition Audit of the Wall Paintings', Wall Painting Section).

THE BUILDING

Although there is thought to have been a castle at Bolsover since the twelfth century, the present buildings are the remains of a seventeenth-century mansion, erected on the site of earlier structures.

The Little Castle was designed as a romantic version of a medieval keep by the architect Robert Smithson for Sir Charles Cavendish. The building of the castle commenced between 1608 and 1613, and was supervised by John Smithson, following the death of his father in 1614. Sir Charles Cavendish died in 1617 and the building work continued under the orders of William Cavendish, son of Charles. (Faulkner, 1993:22)

As well as the wall paintings described in this report the Little Castle also contains other paintings and decorative schemes of artistic and historic importance; for example, the Pillar Chamber, the Star Chamber and the Marble Closet all contain paintings on canvas or timber. Paintings executed on supports other than stone or plaster are beyond the remit of the Wall Painting audit and are dealt with by the Easel Painting Conservation Section.

THE WALL PAINTING AUDIT

'The purpose of this investigation has been to assess the present condition of the highly important 17th-century wall paintings in Bolsover Little Castle. These include the schemes found in the Ante-room and Hall on the ground floor, and the Elysium and the Heaven rooms on the first floor.'

'Previous documentation held at the EH Conservation Studio (Regents Park) records that the paintings were inspected in 1964 (2/3/64 A.N.Stewart) and extensively restored throughout the 1970's (report 10/12/76 M.E.Keevil) as part of a programme of renovation to the building. A further brief inspection was made in 1984 (14/6/84 D.Waterhouse).'

'What is clear from these records, and from previous photography, is that all areas of wall painting have been subject to numerous interventions in recent years in response to their continuing deterioration. The purpose of this present investigation has therefore been two-fold; firstly, to ascertain whether this deterioration is still active and what remedial measures and monitoring requirements need to be implemented; and secondly, to assess the suitability of past treatments and to consider the feasibility of adjusting the presentation of these high-quality paintings.'

THE HALL

'The panelling and wall paintings were commissioned by William Cavendish. The paintings are located within the lunettes above the panelling and depict the 'Labours of Hercules' including the victories over the 'Nemean Lion' (west wall), 'Diomedes Mares' (west wall), the 'Cretan Bull' (north wall) and the 'Wild Boar of Erymanthus' (north wall). In addition panels show Hercules and Vulcan the god of fire to either side of

the chimney breast on the north wall. The paintings may have been based on engravings by an Italian painter and engraver Antonio Tempesta (1555-1630) and probably date from c.1608. The technique of the paintings is oil on plaster with incised lining-out in imitation of ashlar and in several lunettes the paint layer extends onto adjacent stone mouldings, for example, on the 'Cretan Bull' lunette, where the tail tip is painted directly onto the stone arch.'

PREVIOUS INSPECTIONS AND CONSERVATION

'Both the reports of 1964 and 1976 describe the serious condition of the paintings. A.N.Stewart notes the extremely bad flaking, cracking and loss, as well as the presence of old repairs, retouching and a darkened wax coating. M.E.Keevil mentions that the walls were pressure grouted as part of a reinforcement treatment, and the large amounts of water used had resulted in severe damage to the paintings causing extensive staining, loss, lack of cohesion and adhesion of paint and plaster layers.'

'The conservation report in the 1970's states that the: 'layer of dirt was removed with an ammoniated alkaline methyl-cyclohexyl oleate solution and the layer of discoloured varnish with a mixture of solvents, acetone, methylated and white spirits. The disintegrating plaster was revitalised using PVA as an adhesive and the areas of missing plaster were filled with a cellulose filler, these were then smoothed down to level of paint surface and ground colour using Plaka casein waterproof paint as a base. The areas of missing paint were then retouched to match the original paint using oil colour from which the excess oil had been removed. A synthetic resin MS2(a) with a small amount of refined beeswax added was used to give the final protective glaze.'

'Inspection of the paintings in 1984 mentions two paint losses on the painting of the 'Cretan Bull'.'

Photographic Record

Bolsover Castle, Little Castle, wall paintings photograph list.

* = copy in studio file ^ = copy in report 1994

*A/2719/1 August 1953 Entrance seen from the west.

9/1958 A5123 Hall A5123/16-20.

30-6-65 A6803 Hall A6803/10-15.

A6803/10 June 1965 Hall, 'Wild Boar', north-west wall.^

*A6803/11 June 1965 Hall, fireplace surround, north-west wall.

A6803/12 June 1965 Hall, 'Cretan Bull', north-west wall.^

A6803/13 June 1965 Hall, 'Diomedes' Mare', south-west wall.^

*A6803/14 June 1965 Hall, 'Nemean Lion', south-west wall.

A6803/15 June 1965 Hall, 'Nemean Lion', south-west, in raking light?^

*A7002/15 Dec. 1965 Interior view of Hall, viewed from east corner.

18-11-69 A8144 General; Hall A8144/8-13. G

*A9234/4 Oct. 1974 Hall, fireplace, north-west wall.

A9234/5 Oct. 1974 Hall, 'Wild Boar', north-west wall.^

A9234/6 Oct. 1974 Hall, 'Nemean Lion', south-west wall.^

A9234/7 Oct. 1974 Hall, 'Diomedes' Mare', south-west wall.^

A9234/8 Oct. 1974 Hall, 'Cretan Bull', north-west wall.^

*A9735/1 Oct. 1976 Hall, showing A. Buckley retouching.

*A9735/6 Oct. 1976 Hall, showing A. Buckley retouching south-west wall.

Bibliography

Faulkner, P.A., 'Bolsover Castle, Derbyshire', E.H. Guide Book, E.H., London, 1993 first published by E.H. 1985.

2 General Audit Information

Property name	BOLSOVER CASTLE	County	Derbyshire
Region	Midlands		
Location	Hall		
Orientation	WEST AND NORTH WALLS		
Century 17 th	Date	Height (cm) 250	Width (cm) 315
Auditor(s)	SS/JD	Start date	01/12/94

Overall condition score **4**

Recommendations

OVERALL RECOMMENDATIONS: THE ANTE-ROOM AND HALL

'The paintings are still actively deteriorating in these rooms, which has most likely been caused by unsatisfactory environmental conditions and probably accelerated by the presence of thick varnish layers. The paintings require emergency remedial treatment and a programme of environmental monitoring in order to rectify the interior environments of the two rooms. This should include internal and external relative humidity and temperature measurements and, in particular, surface temperature measurements to ascertain whether condensation is occurring.'

'Following this an investigation should also be made into the feasibility of partially removing the varnish layer in both areas. This would not only improve the appearance of the paintings, which have now darkened, but also alleviate the potential for their future deterioration. However, as the paintings have been extensively retouched, it should be considered that such an intervention may be technically complicated.'

SPECIFIC RECOMMENDATIONS: THE HALL

'The paintings are in a similar condition to the Four Elements scheme in the Ante-room and would seem to be subject to the same cycle of on-going deterioration. All the schemes exhibit pitting of the surface, probably caused by previous flaking and loss of ground and paint layers, which have been extensively retouched and varnished. The paintings are covered in surface dirt and bird droppings were noted in several areas. Some repairs are evident on the lower edge of the 'Nemean Lion' lunette.'

'As the conservation problems in the Hall are almost identical to those found in the Ante-room the treatment required is the same. This includes:

SHORT-TERM

- surface cleaning to remove the obscuring layer of dirt and dust
- urgent fixing of the paint layer/ground on the 'Nemean Lion' and 'Cretan Bull' lunettes (other lunettes may require similar treatment following further examination at closer access)
- an extensive programme of environmental monitoring to assist in defining the underlying causes of deterioration

LONG-TERM

- possible partial removal/reduction of the varnish layer

3 Audit Information: Technique

Property name BOLSOVER CASTLE
Region Midlands **County** Derbyshire
Location Hall
Orientation WEST AND NORTH WALLS
Century 17th **Date** **Height (cm)** 250 **Width (cm)** 315
Auditor(s) SS/JD **Start date** 01/12/94

Overall Condition Score 4

Stratigraphy

Layer type Support Layer **Specific condition Score** 3

Thickness 65 cm

Comments

Sandstone support. There is wainscot panelling to a height of c. 259 cms. The building has a history of structural movement, hence the poor condition score of the support.

Layer type Render Layer 1 **Specific condition Score** 3

Thickness

Comments

Fine lime/sand render. The render panels of the lunettes appear to have shrunk slightly away from the surrounding stone arches to leave a minute gap around the edges (c. 0.2 cms). No hair is visible in the render. The north west wall has render with an incised ashlar pattern. The west wall has a raised ashlar pattern, this may be the result of previous misconceived repairs or could indicate raised pointing of genuine stone blocks to which the ground is applied directly. Limited access during 1994 audit prevented further investigation.

Layer type Ground Layer 1 **Specific condition Score** 4

Thickness

Comments

The paint is fairly opaque and thickly applied. A red-brown ground may be present.

Layer type Paint Layer 1 **Specific condition Score** 2

Thickness

Comments

The paint layer has a pitted appearance, probably caused by previous flaking and loss of ground and paint layers, which has been extensively retouched and varnished. In several lunettes paint extends beyond the lunettes onto adjacent stone mouldings, e.g. the 'Cretan Bull' lunette, where the tail tip is painted on the stone arch. Visible colours include brown, black, white and red.

Identified pigments Colours

--- brown
--- black
--- white
--- red

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

Property name	BOLSOVER CASTLE		
Region	Midlands	County	Derbyshire
Location	Hall		
Orientation	WEST AND NORTH WALLS		
Century 17 th	Date	Height (cm) 250	Width (cm) 315

DETERIORATION AND DAMAGE

Deterioration phenomena

Type flaking

Location 'Nemean Lion' and 'Cretan Bull' lunettes.

Comments 'Sheet' flaking of the paint layer and ground, especially on the 'Nemean Lion' scheme and the 'Cretan Bull' painting. This is particularly serious. Some of the delaminating areas measure up to 10cm and are raised by up to 1cm. There is also some fine cracking associated with these areas. This type of deterioration is not visible on photographs taken c. 1975 and may therefore be a new phenomenon, possibly associated with thickly applied varnish layer.

Type flaking

Location Especially 'Cretan Bull' lunette.

Comments This flaking consists of small scale 'cupping' and loss of paint and ground layers especially on the 'Cretan Bull' lunette. It is interesting to note that photographs taken prior to conservation in the mid 1970's of the 'Nemean Lion' lunette show similar 'cupping' flaking but no evidence of the larger 'sheet' flaking. The latter may therefore be a new phenomenon perhaps associated with the presence of the thick varnish coating. No obvious flaking was noted on the 'Diomedes Mares' lunette but the painting may be vulnerable to this type of deterioration.

Type cracking

Location 'Boar of Erymanthus', lower east side plaster and fireplace lunettes, lower east side.

Comments Probably due to differential movement of plaster and corbels. The building has a history of structural movement.

Type blanching

Location 'Boar of Erymanthus' lunette.

Comments Slight blanching of the varnish has occurred. This phenomenon usually arises from moisture coming into contact with the surface of a varnish layer. Condensation events may be a possible source.

Type loss

Location 'Cretan Bull' lunette.

Comments A small amount of loss due to flaking has occurred.

Mechanical damage

Type nail holes

Type nail holes
Location Render, especially in 'Nemean Lion' lunette.
Comments Several nails are present.

Type insertions
Location Upper west fireplace.
Comments Unidentified metal pipe and wooden block. Both are overpainted.

ADDED MATERIALS

Accretions

Type bird excreta
Location 'Boar of Erymanthus' and 'Diomedes's Mares' lunettes.
Comments White deposits. Excreta may cause damaging reactions.

Type dirt
Location General.
Comments Disfiguring.

Type dust
Location General.
Comments Disfiguring.

Coatings/Coverings

Type synthetic varnish
Location General surface.
Comments A shiny thick varnish layer is present. See past treatment.

Type repainting
Location General.
Comments Numerous areas of retouching and overpaint are present.

Repairs

Type cement
Location Visible at lower edge of 'Nemean Lion' lunette.
Comments A cement type repair is visible. More are probably present. Deep repairs were undertaken by a builder in 1976 (pers. comm. A. Buckley). See also past treatment.

Type modern plaster
Location Visible at lower edge of 'Nemean Lion' lunette.
Comments More are probably present. Surface repairs were undertaken by D.O.E conservators using 'Polyfilla' in 1976 (pers. comm. A. Buckley). See also past treatment.

TREATMENT

Past Treatment

Type UNSPECIFIED **Date** 24/01/64

Person B. T. Wincap

Comments A letter from B.T.Wincap, Architect, to F.L.Rothwell, Superintending architect (24/01/64) states:

'Mr Bailey has asked me to write to you about the wall paintings. The last time I visited the Custodian drew my attention to their condition. Damp and condensation appear to be causing deteriorations in several places, notably the Great Hall. Can they be examined by an expert who should be asked to give advice on treatment and future maintenance.'

Past Treatment

Type MONITORING CONDITION **Date** 02/03/64

Person A. N. Stewart

Comments A report on the condition of the paintings by A.N.Stewart, Chief Restorer (02/03/64) (EH correspondence file) states:

'The Hall. The Labours of Hercules.
Four lunettes in oil on plaster, 10'6" x 6'4", and two half lunettes, 2'6" x 6'.

(A) The Nemean Lion.

Very bad flaking all over, but especially at base. Cracks, old repairs and retouchings. Darkened wax coating.

(B) The Mare of Diomedes.

Flaking, cracks, old repairs and retouching. Darkened wax coating.

(C) The Wild Bull.

Flaking, cracks, old repairs and retouching, Dark wax coating.

(D) Two Figures of Hercules.

In half lunettes on either side of fireplace. Flaking, cracks, old repairs and retouchings. Dark wax coating.

(E) The Boar of Erymanthus.

Flaking, cracks, old repairs and retouchings. Dark wax coating.

RECOMMENDATIONS.

All dirty wax to be removed, cracks filled and retouched, plaster loss repaired. In the case of (A) there is extremely bad flaking through damp which is so friable that it is impossible to treat, it will have to be removed and the portion exposed treated and painted to match the original design and colour.

Type UNSPECIFIED **Date** 02/03/64

Person A. N. Stewart

Comments A report on the condition of the paintings by A.N.Stewart, Chief Restorer (02/03/64), states:

'It will be seen... that there is a vast amount of work to be carried out which will take some years to complete, as it is dependent on the roofs (sic) and structure being repaired before we start restoring the paintings on plaster. We will certainly have to face them for protection against vibrations but some repairs to loose plaster should be carried out in the meantime as there is danger of loss.

Condensation and surface chill is everywhere, especially on the plaster lunettes. This will not clear up until the structure is restored, and varying atmospheric conditions are taking their toll... work at the Castle would have to be carried out during the summer months, it would be impossible at any other time of year.'

Past Treatment

Type CLEANING **Date** 10/12/76
Person M.E. Keevil
Comments A report on conservation treatment, by M.E. Keevil (10-12-76) (EH correspondence file) states:

'The Hall.

Five mural paintings oil on plaster ground depicting the Labours of Hercules. c. 1620 measuring 10ft 9ins x 8ft 7ins.

Subject.

1. The Nemean Lion
2. One of the Mares of Diomedes
3. The Wild Bull
4. Hercules and Vulcan
5. The Boar of Erymanthus

Condition.

Suffered badly from the Fondedile System treatment which had been used to reinforce the walls, 4ins cordrill was placed through the walls and 1in steel bar placed in these and then this was pressure grouted. Water was used to prevent overheating and clogging which penetrated the surrounding masonry and also water from the grout i.e. mixture of sand, cement & water penetrated the surface of the paintings causing a white stain on the paint surface and cement dribbles. The plaster was breaking away from the walls due to dampness and excessive use of water causing large areas of paint loss. The paintings were covered with a thick layer of dirt and discoloured varnish which was ingrained into the paint surface.

Treatment.

The layer of dirt was removed with an ammoniated alkaline methyl, cyclohexyl oleate solution and the layer of discoloured varnish with a mixture of solvents, acetone, methylated and white spirits. The disintegrating plaster was revitalised using PVA as an adhesive and the areas of missing plaster were filled with a cellulose filler, these wer then smoothed down to level of paint surface and ground colour using Plaka casein waterproof paint as a base. The areas of missing paint were then retouched to match the original paint using oil colour from which the excess oil had been removed. A synthetic resin MS2(a) with a small amount of refined beeswax added was used to give the final protective glaze.'

02-03-78 Memo on state of work by P.J. Keevil

'Hercules Room [Hall]

Finished, final dust to remove dirt accumulated during building operations.'

14-06-84 Inspection of the wall paintings in the Little Keep by D.J. Waterhouse.

'Hercules Room

Two paint losses on painting of Hercules with the Bull, approx 1/2" x 3/4". Other painting satisfactory.

Past Treatment

Type CONSOLIDATION **Date** 11/12/76

Person M.E. Keevil

Comments A report on conservation treatment, by M.E. Keevil (10-12-76) (EH correspondence file) states:

'The disintegrating plaster was revitalised using PVA as an adhesive and the areas of missing plaster were filled with a cellulose filler'

Past Treatment

Type PRESENTATION/REINTEGRATION **Date** 12/12/76

Person M.E. Keevil

Comments A report on conservation treatment, by M.E. Keevil (10-12-76) (EH correspondence file) states:

'areas of missing plaster were filled with a cellulose filler, these were then smoothed down to level of paint surface and ground colour using Plaka casein waterproof paint as a base was used. The areas of missing paint were then retouched to match the original paint using oil colour from which the excess oil had been removed.'

02-03-78 Memo on state of work by P.J. Keevil

'Hercules Room [Hall]
Finished, final dust to remove dirt accumulated during building operations.'

14-06-84 Inspection of the wall paintings in the Little Keep by D.J. Waterhouse.

'Hercules Room
Two paint losses on painting of Hercules with the Bull, approx 1/2" x 3/4". Other painting satisfactory.'

Past Treatment

Type APPLICATION OF COATING **Date** 13/12/76

Person M.E. Keevil

Comments A report on conservation treatment, by M.E. Keevil (10-12-76) (EH correspondence file) states:

'A synthetic resin MS2(a) with a small amount of refined beeswax added was used to give the final protective glaze.'

02-03-78 Memo on state of work by P.J. Keevil

'Hercules Room [Hall]
Finished, final dust to remove dirt accumulated during building operations.'

14-06-84 Inspection of the wall paintings in the Little Keep by D.J. Waterhouse.

'Hercules Room
Two paint losses on painting of Hercules with the Bull, approx 1/2" x 3/4". Other painting satisfactory.'

Past Treatment

Type MONITORING CONDITION **Date** 02/03/78
Person P. J. Keevil
Comments A memo on state of work by P.J. Keevil (02-03-78) (EH correspondence file) notes:

'Hercules Room [Hall]
Finished, final dust to remove dirt accumulated during building operations.'

Past Treatment

Type UNSPECIFIED **Date** 13/04/78
Person M. R. Apted
Comments A report on the restoration at the Little Castle by M.R. Apted (13/04/78) states:

'I was asked to visit Bolsover with representatives of IAM, AM Works and the Regent's Park Conservation centre because lack of clearly defined policy had been hindering progress and because it was thought my previous experience with painted decoration in Scotland might be helpful. I thought the paintings were being over-restored, but since with the exception of the 'Hell' room [Elysium Room] the principal scenes had already been largely completed I recommended that with the exception of that one room our existing policy should be carried to its logical conclusion...'

Past Treatment

Type MONITORING CONDITION **Date** 14/06/84
Person D. J. Waterhouse
Comments An inspection of the wall paintings in the Little Keep by D.J. Waterhouse (14-06-84) (EH correspondence file) was carried out and the following was noted:

'Hercules Room
Two paint losses on painting of Hercules with the Bull, approx 1/2" x 3/4". Other painting satisfactory.'

Proposed Treatment

Type CLEANING **Date** 01/12/94
Person SS/JD
Comments The applied varnish coating may be contributing towards the 'sheet' flaking observed. Cleaning to remove/ reduce the varnish coating may be considered following environmental monitoring. Naturally, removal of the varnish would also remove areas of blanched varnish.

Type ENVIRONMENTAL MONITORING **Date** 01/12/94
Person SS/JD
Comments An extensive programme of environmental monitoring is required to assist in defining the underlying causes of deterioration.

Type FLAKE FIXING **Date** 01/12/94

Person SS/JD

Comments Flake fixing is urgently required on the 'Nemean Lion' and 'Cretan Bull' lunettes (other lunettes may require similar treatment following further examination at closer access).

1 Wall Painting Record

Property name	BOLSOVER CASTLE		
Region	Midlands	County	Derbyshire
Location of painting	Elysium Room		
Orientation	CEILING, FRIEZE		
Century 17 th	Date	Height (cm) 105	Width (cm) 370
Subjects included			
Allegorical figure subject			

Description

This audit incorporates the results of an examination of the paintings and subsequent report undertaken in November 1994 ('Bolsover Little Castle: Condition Audit of the Wall Paintings', Wall Painting Section).

THE BUILDING

Although there is thought to have been a castle at Bolsover since the twelfth century, the present buildings are the remains of a seventeenth-century mansion, erected on the site of earlier structures.

The Little Castle was designed as a romantic version of a medieval keep by the architect Robert Smithson for Sir Charles Cavendish. The building of the castle commenced between 1608 and 1613, and was supervised by John Smithson, following the death of his father in 1614. Sir Charles Cavendish died in 1617 and the building work continued under the orders of William Cavendish, son of Charles. (Faulkner, 1993:22)

As well as the wall paintings described in this report the Little Castle also contains other paintings and decorative schemes of artistic and historic importance; for example, the Pillar Chamber, the Star Chamber and the Marble Closet all contain paintings on canvas or timber. Paintings executed on supports other than stone or plaster are beyond the remit of the Wall Painting audit and are dealt with by the Easel Painting Conservation Section.

THE WALL PAINTING AUDIT

'The purpose of this investigation has been to assess the present condition of the highly important 17th-century wall paintings in Bolsover Little Castle. These include the schemes found in the Ante-room and Hall on the ground floor, and the Elysium and the Heaven rooms on the first floor.'

'Previous documentation held at the EH Conservation Studio (Regents Park) records that the paintings were inspected in 1964 (2/3/64 A.N.Stewart) and extensively restored throughout the 1970's (report 10/12/76 M.E.Keevil) as part of a programme of renovation to the building. A further brief inspection was made in 1984 (14/6/84 D.Waterhouse).'

'What is clear from these records, and from previous photography, is that all areas of wall painting have been subject to numerous interventions in recent years in response to their continuing deterioration. The purpose of this present investigation has therefore been two-fold; firstly, to ascertain whether this deterioration is still active and what remedial measures and monitoring requirements need to be implemented; and secondly, to assess the suitability of past treatments and to consider the feasibility of adjusting the presentation of these high-quality paintings.'

THE ELYSIUM ROOM

'The Elysium room is set at the centre of the southern wall, to the west of Sir William's Chamber. The paintings are situated above the panelling on the upper parts of the walls and ceiling and window soffit and depict an 'Assembly of the gods'. The southern frieze above the window shows Neptune with a scroll inscribed 'All is vanite' and the window soffit shows Democritus laughing and Heraclitus weeping. The

goddesses Juno and Minerva appear on the frieze, and Bacchus is shown striding across the ceiling. The main ceiling shows a trompe l'oeil sky with deities. The composition of the painting is thought to be derived from an engraving by Cornelius Cort of a ceiling by Primaticcio in the Galerie d'Ulysse at Fontainebleau.'

PREVIOUS INSPECTIONS AND CONSERVATION

'A.N.Stewart (1964) describes the paintings as heavily obscured by discoloured varnish and repainting and exhibiting extensive flaking and cracking. M.E.Keevil notes (1976) that 'the paintings are covered with heavy surface dirt' and that 'many apparent paint losses are in fact due to efflorescence, which once removed, reveal the paint to be in good condition'. The paintings were subsequently cleaned, repairs inserted, a partial reintegration attempted and the paintings then varnished.'

The dimensions of the ceiling are 370 x 300 cms and the frieze is 105 cms deep.

Photographic Record

Bolsover Castle, Little Castle, wall paintings photograph list.

* = copy in studio file ^ = copy in report 1994

*A7002/10 Dec. 1965 Interior view of Elysium room, south corner.

18-11-69 A8144 General; Elysium A8144/40.

29-10-75 A9404 Elysium A9404/1-3 +7-8 +12-13 +21.

*A9404/1 Oct. 1974 Elysium room, ceiling, viewed from south-east.

*A9404/2 Oct. 1974 Elysium room, south-east wall. (^ the image in report shows the ceiling, yet has the same code.)

*A9404/3 Oct. 1974 Elysium room, south-east wall, window soffit.

*A9404/7 Oct. 1974 Elysium room, north-east wall.

*A9404/8 Oct. 1974 Elysium room, north-east wall.

*A9404/12 Oct. 1974 Elysium room, north-west wall.

*A9404/13 Oct. 1974 Elysium room, south-west wall.

25-10-77 Y(CN)10546 Elysium Y(CN)10546/1-13.

*Y(CN)10546/1 Oct. 1977 Elysium room, ceiling, viewed from north-west. ^

*Y(CN)10546/2 Oct. 1977 Elysium room, ceiling, viewed from north-east.

*Y(CN)10546/3 Oct. 1977 Elysium room, ceiling, viewed from south-east.

*Y(CN)10546/4 Oct. 1977 Elysium room, ceiling, viewed from south-west.

*Y(CN)10546/5 Oct. 1977 Elysium room, ceiling, detail centre.

*Y(CN)10546/6 Oct. 1977 Elysium room, north-west wall, from scaffolding.

*Y(CN)10546/7 Oct. 1977 Elysium room, south-west wall, from scaffolding.

*Y(CN)10546/8 Oct. 1977 Elysium room, north-east wall, from scaffolding.

*Y(CN)10546/9 Oct. 1977 Elysium room, north-east wall, east corner, from scaffolding.

*Y(CN)10546/10 Oct. 1977 Elysium room, south-east wall, from scaffolding.

*Y(CN)10546/11 Oct. 1977 Elysium room, south-east wall, window soffit.

*Y(CN)10546/12 Oct. 1977 Elysium room, north-west wall, D. Waterhouse retouching.

*Y(CN)10546/13 Oct. 1977 Elysium room, north-east wall, D. Waterhouse cleaning.

7-2-78 Y10570 Elysium Y10570/1-6.

*Y10570/1 Feb. 1978 Elysium room, north-west wall. ^

*Y10570/2 Feb. 1978 Elysium room, ceiling, viewed from south-east. ^

*Y10570/3 Feb. 1978 Elysium room, ceiling, viewed from north-west.

*Y10570/4 Feb. 1978 Elysium room, north-east wall.

*Y10570/5 Feb. 1978 Elysium room, south-west wall.

*Y10570/6 Feb. 1978 Elysium room, south-east wall. ^

7-2-78 Y(CN)10571 Elysium Y(CN)10571/1-5.

*Y(CN)10571/1 Feb. 1978 Elysium room, ceiling, viewed from south-west.

*Y(CN)10571/2 Feb. 1978 Elysium room, north-west wall.

*Y(CN)10571/3 Feb. 1978 Elysium room, north-east wall.

*Y(CN)10571/4 Feb. 1978 Elysium room, south-west wall.

*Y(CN)10571/5 Feb. 1978 Elysium room, ceiling, viewed from the south-east.

*Y(CN)10571/6 Feb. 1978 Elysium room, south-east wall and window soffit.

Bibliography

Faulkner, P.A., 'Bolsover Castle, Derbyshire', E.H. Guide Book, E.H., London, 1993 first published by E.H. 1985.

2 General Audit Information

Property name	BOLSOVER CASTLE	County	Derbyshire
Region	Midlands		
Location	Elysium Room		
Orientation	CEILING, FRIEZE		
Century 17 th	Date	Height (cm) 105	Width (cm) 370
Auditor(s)	SS/JD	Start date	01/12/95

Overall condition score **3**

Recommendations

OVERALL RECOMMENDATIONS: THE ELYSIUM ROOM AND THE HEAVEN ROOM

'The paintings do not seem to be actively deteriorating but both of these high-quality schemes have been severely compromised by their poor presentation and excessive retouching, particularly in the Heaven room. Emergency treatment does not appear to be necessary (although access was limited during the present survey). However, it would be hoped that in both cases a programme of recording and analysis could be conducted, including an investigation of previous treatments to ascertain the stratigraphy of the original and repainted layers.'

'In the case of the Elysium room it would be preferable if this could lead to a programme of cleaning and sympathetic reintegration of background losses to improve the presentation of the scheme. In the Heaven room, tests to remove the repainting subject to the results of a preliminary investigation, followed by a similar approach to the presentation of the paintings would be preferred. However, such a project may prove to be technically complicated and also extremely time-consuming.'

'Both rooms would benefit from a similar environmental monitoring programme as that recommended for the ground-floor rooms to ensure that the internal environment can be maintained at a stable and appropriate level. In addition, the large ceiling cracks found in both rooms should be monitored.'

SPECIFIC RECOMMENDATIONS: THE ELYSIUM ROOM

'The paintings are in a fair condition. However, the recent conservation programme has clearly failed to present this high-quality scheme in an appropriate way. The surface of the painting is difficult to read due to blanching, poor-quality retouching, overpainting and general surface dirt. In addition, unsuitable polyfilla repairs have been painted a dark grey colour.'

'Although the scheme does not appear to be actively deteriorating, ideally a programme of cleaning and sympathetic reintegration of background losses is required to improve the presentation of the scheme. It would be preferable if this followed a programme of recording and analysis, including a full investigation of previous treatments to ascertain the stratigraphy of the original and repainted layers. In addition it is not clear whether the paintings are subject to damage caused by adverse environmental conditions. Although their condition is not as severe as the paintings on the ground floor it would be preferred that environmental monitoring, including surface temperature and dew point measurements, be undertaken.'

'In summary, treatment required includes:

SHORT-TERM:

- environmental monitoring
- localised flake-fixing of the paint layer
- monitoring of the ceiling crack

- surface dirt and dust should be removed

LONG-TERM:

- recording and scientific examination
- removal of unsightly painted polyfilla repairs and replacement with a more compatible material
- minimum reintegration of background losses
- possible cleaning and removal of retouching

3 Audit Information: Technique

Property name	BOLSOVER CASTLE		
Region	Midlands	County	Derbyshire
Location	Elysium Room		
Orientation	CEILING, FRIEZE		
Century 17 th	Date	Height (cm) 105	Width (cm) 370
Auditor(s)	SS/JD	Start date	01/12/95

Overall Condition Score 3

Stratigraphy

Layer type	Support Layer	Specific condition Score	2
------------	---------------	--------------------------	---

Thickness 40 cm

Comments

Wainscot panelling covers the lower walls and the supporting wall is only visible above the upper edge of the panelling through a small gap. It appears that the support is of brick to the internal walls (although the layer visible may have been a render rich in brick inclusions). The support of the window soffit is sandstone ashlar.

Layer type	Render Layer 1	Specific condition Score	2
------------	----------------	--------------------------	---

Thickness

Comments

The render appears to be a white lime plaster with the addition of hair and fine aggregate. Several blisters were noted. Blisters may be associated with incomplete slaking of the lime prior to plastering.

Layer type	Ground Layer 1	Specific condition Score	2
------------	----------------	--------------------------	---

Thickness

Comments

No ground is obviously visible, however a ground layer is nevertheless very likely to be present. Technical analysis would be able to identify any ground layer(s) present.

Layer type	Paint Layer 1	Specific condition Score	3
------------	---------------	--------------------------	---

Thickness

Comments

Surface paint layers are fairly translucent. A pentimento is visible to the breast of a female figure on the north wall, indicating an artists' change of design. A full range of pigments suitable for use in oil are present. Analysis could identify the exact range and methods of application.

Identified pigments Colours

--- brown
--- black
--- white
--- red
--- yellow
--- green
--- blue

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

Property name	BOLSOVER CASTLE		
Region	Midlands	County	Derbyshire
Location	Elysium Room		
Orientation	CEILING, FRIEZE		
Century 17 th	Date	Height (cm) 105	Width (cm) 370

DETERIORATION AND DAMAGE

Deterioration phenomena

Type blanching

Location east wall frieze and also several other areas.

Comments A white deposit/blanching of a rectangular area of paint is visible to the east wall frieze. However, this area corresponds exactly to an area cleaned as a preliminary test in 1976. The material used is likely to have been 'Vulpex' (an ammoniated alkaline methyl cyclohexyl oleate solution), an extremely harsh cleaning agent known to have been included as part of the 1970's conservation campaign. The deterioration of the paint layer may therefore be attributable to the use of this inappropriate material.

Type flaking

Location General, many areas.

Comments Small scale brittle lifting of the paint is occurring. At present the paint flakes appear reasonably stable, however they should be monitored and treated in due course. The extent of loss prior to 1970's restoration, which has now been retouched, is evidence of a long term (and presumably on-going) flaking mechanism.

Type blanching

Location Several areas on ceiling and frieze.

Comments There is a white appearance to patches of varnish in several areas.

Type staining

Location north frieze, west side.

Comments Drip-marks.

Type coating - deterioration

Location varnish layer, generally.

Comments The covering varnish layer is subject to craquelure and lifting.

Mechanical damage

Type cracking/fracturing

Location 20cms in from perimeter of ceiling bed.

Comments Apparently associated with some element of the ceiling construction.

Type scratches

Location General.

Comments A few scratches to the surfaces of the paintings have occurred.

Type abrasion

Location Surface.

Comments Several areas appear to be abraded and damaged. The cause of this is uncertain, but it may be the result of harsh cleaning in the past or physical abrasion.

ADDED MATERIALS

Accretions

Type dirt
Location Surface.
Comments Disfiguring.

Type cobwebs
Location Surface.
Comments Disfiguring.

Type dust
Location Surface.
Comments Disfiguring.

Type unidentified deposit
Location North frieze, west side.
Comments Drip marks from old cleaning or condensation.

Coatings/Coverings

Type synthetic varnish
Location Surface.
Comments Applied more thinly than in other areas of the building. Now undergoing deterioration resulting in craquelure and lifting.

Type repainting
Location Restricted to old losses ?
Comments Probably attributable to the 1976 conservation programme.

Type repainting
Location Ceiling bed.
Comments Oil(?) bound overpaint is present on several areas of the ceiling. On stylistic grounds it appears that the overpaint may date from the 19th century although is cannot be confirmed without technical analysis.

Repairs

Type modern plaster
Location Several cracks.
Comments 'Polyfilla'? Retouched to grey. Probably dates from the 1976 conservation work.

Type unidentified
Location Uncertain due to overpaint.
Comments The surface of the painting is difficult to read, however it appears that there are repairs to the ceiling which are now obscured by overpaint.

TREATMENT

Past Treatment

Type UNSPECIFIED Date 24/01/64

Person B.T. Wincap

Comments A letter from B.T.Wincap, Architect, to F.L.Rothwell, Superintending architect (24/01/64) states 'Mr Bailey has asked me to write to you about the wall paintings. The last time I visited the Custodian drew my attention to their condition. Damp and condensation appear to be causing deteriorations in several places, notably the Great Hall. Can they be examined by an expert who should be asked to give advice on treatment and future maintenance.'

Past Treatment

Type MONITORING CONDITION Date 02/03/64

Person A. N. Stewart

Comments A report on the condition of the paintings by A.N.Stewart, Chief Restorer (02/03/64) states:

The Elysium Room.

Painted ceiling in oil on plaster, 12' x 9'9", showing Allegorical figures around central figure of Apollo. The frieze is in oil on Plaster, one side 3'3" x 9'9" and alternate sides 3'3" x 12' and shows Gods and Goddesses. Paintings in Window Soffit of Heraclitus and Democritas.

The ceiling.

Bad crazing and old repaintings. Darkened surface.

The frieze.

In bad state, flaking and cracks, old retouchings and repairs. Dirty varnish etc.

Window Soffit.

Cracked and dirty, flaking etc.

RECOMMENDATIONS.

The ceiling covered with discoloured varnish will respond fairly well to cleaning. Some of the plaster may be loose. Cracks to be filled and retouched to original. The frieze is in a bad state and will need careful treatment. Old retouchings to be removed, and plaster repaired where needed. Soffit paintings to be given same treatment.

Type UNSPECIFIED Date 02/03/64

Person A.N. Stewart

Comments A report on the condition of the paintings by A.N.Stewart, Chief Restorer (02/03/64) (EH correspondence file) states:

'It will be seen... that there is a vast amount of work to be carried out which will take some years to complete, as it is dependent on the roofs (sic) and structure being repaired before we start restoring the paintings on plaster. We will certainly have to face them for protection against vibrations but some repairs to loose plaster should be carried out in the meantime as there is danger of loss.

Condensation and surface chill is everywhere, especially on the plaster lunettes. This will not clear up until the structure is restored, and varying atmospheric conditions are taking their toll... work at the Castle would have to be carried out during the summer months, it would be impossible at any other time of year.'

Past Treatment

Type CLEANING **Date** 10/12/76

Person M. E. Keevil

Comments A report on conservation treatment, by M.E. Keevil, (10-12-76) (EH correspondence file) states:

'The Elysium Room.
Upper walls, ceiling and window arch painted in oil on plaster, depicting pagan deities. The walls are panelled up to the paintings. The room measures 14ft by 9ft 10 inches.

Condition.
The paintings are covered with heavy surface dirt, many apparent paint losses are in fact due to efflorescence, which once removed, reveal the paint to be in good condition.

Proposed Treatment.
The panelling will be cleaned and repaired as necessary. The paintings will be cleaned and consolidated, but paint losses will be retouched with a flat neutral tone, rather than completely restored. Synthetic semi-matt varnish will form a final protective layer.'

Past Treatment

Type PRESENTATION/REINTEGRATION **Date** 11/12/76

Person M. E. Keevil

Comments A report on conservation treatment, by M.E. Keevil (10-12-76) (EH correspondence file) states:

'The paintings will be cleaned and consolidated, but paint losses will be retouched with a flat neutral tone, rather than completely restored.'

Past Treatment

Type APPLICATION OF COATING **Date** 12/12/76

Person M. E. Keevil

Comments A report on conservation treatment, by M.E. Keevil (10-12-76) (EH correspondence file) confirms the use of a 'synthetic semi-matt varnish will form a final protective layer.'

Past Treatment

Type MONITORING CONDITION **Date** 02/03/78

Person P.J. Keevil

Comments A memo on state of work by P.J. Keevil (EH correspondence file) (02-03-78) states:

'Hell Room [Elysium Room]
Ceiling finished to state requested by Dr. Apted.'

Past Treatment

Type UNSPECIFIED **Date** 13/04/78
Person M.R. Apted
Comments A report on restoration at the Little Castle by M.R. Apted (EH correspondence file) (13/04/78) states:

'I was asked to visit Bolsover with representatives of IAM, AM Works and the Regent's Park Conservation centre because lack of clearly defined policy had been hindering progress and because it was thought my previous experience with painted decoration in Scotland might be helpful. I thought the paintings were being over-restored, but since with the exception of the 'Hell' room [Elysium Room] the principal scenes had already been largely completed I recommended that with the exception of that one room our existing policy should be carried to its logical conclusion...'

Type VARIOUS **Date** 13/04/78
Person M. R. Apted
Comments A report on restoration at the Little Castle by M.R. Apted (13/04/78) (EH correspondence file) states:

'With regard to the 'Hell' room [Elysium Room] I asked for a more studied approach which, taking it stage by stage was as followed:-

- a. Detailed photographic record of the ceiling as found, including general views and details in both black and white and colour.
- b. Pigment analysis to identify the colours used both for the historic record and for the benefit of the conservators.
- c. Microscopic examination of paint sections to determine the techniques used, the nature of the paint layers and the extent of repainting in the past. I particularly wanted to confirm that we were justified in heavily varnishing the paintings on completion.
- d. Cleaning and minimum conservation work to make sound, including infilling areas of serious paint loss in a neutral colour.
- e. Repeat of photographic record.
- f. Joint visit by all parties to review progress to date and to agree final action.
- g. Minimum repainting to restore the aesthetic quality of the painting, with re-varnishing if justified by the evidence provided by 3.
- h. Final photographic record.
- i. Preparation of illustrated record for publication.'

Proposed Treatment

Type CLEANING **Date** 01/12/94
Person SS/JD
Comments Surface cleaning is required.

Type FILLS/REPAIRS REMOVAL **Date** 01/12/94
Person SS/JD
Comments Unsightly painted polyfilla repairs should be removed and replaced with a more compatible material.

Type FLAKE FIXING **Date** 01/12/94
Person SS/JD
Comments Areas of lifting paint are present to the frieze and ceiling and require stabilisation.

Type MONITORING CONDITION **Date** 01/12/94

Person SS/JD

Comments Old cracks within the ceiling bed indicate a history of structural movement. The structural stability of the ceiling should be assessed prior to any conservation treatment.

Type VARIOUS **Date** 01/12/94

Person SS/JD

Comments Although the scheme does not appear to be actively deteriorating, ideally a programme of cleaning and sympathetic reintegration of background losses is required to improve its presentation. It is essential that this follows a programme of recording and analysis, including a full investigation of previous treatments to ascertain the stratigraphy of the original and repainted layers.

1 Wall Painting Record

Property name	BOLSOVER CASTLE		
Region	Midlands	County	Derbyshire
Location of painting	Heaven Room		
Orientation	CEILING, FRIEZE		
Century 17 th	Date	Height (cm) 100	Width (cm) 320
Subjects included			
Allegorical figure subject			

Description

This audit incorporates the results of an examination of the paintings and subsequent report undertaken in November 1994 ('Bolsover Little Castle: Condition Audit of the Wall Paintings', Wall Painting Section).

THE BUILDING

Although there is thought to have been a castle at Bolsover since the twelfth century, the present buildings are the remains of a seventeenth-century mansion, erected on the site of earlier structures.

The Little Castle was designed as a romantic version of a medieval keep by the architect Robert Smithson for Sir Charles Cavendish. The building of the castle commenced between 1608 and 1613, and was supervised by John Smithson, following the death of his father in 1614. Sir Charles Cavendish died in 1617 and the building work continued under the orders of William Cavendish, son of Charles. (Faulkner, 1993:22)

As well as the wall paintings described in this report the Little Castle also contains other paintings and decorative schemes of artistic and historic importance; for example, the Pillar Chamber, the Star Chamber and the Marble Closet all contain paintings on canvas or timber. Paintings executed on supports other than stone or plaster are beyond the remit of the Wall Painting audit and are dealt with by the Easel Painting Conservation Section.

THE WALL PAINTING AUDIT

'The purpose of this investigation has been to assess the present condition of the highly important 17th-century wall paintings in Bolsover Little Castle. These include the schemes found in the Ante-room and Hall on the ground floor, and the Elysium and the Heaven rooms on the first floor.'

'Previous documentation held at the EH Conservation Studio (Regents Park) records that the paintings were inspected in 1964 (2/3/64 A.N.Stewart) and extensively restored throughout the 1970's (report 10/12/76 M.E.Keevil) as part of a programme of renovation to the building. A further brief inspection was made in 1984 (14/6/84 D.Waterhouse).'

'What is clear from these records, and from previous photography, is that all areas of wall painting have been subject to numerous interventions in recent years in response to their continuing deterioration. The purpose of this present investigation has therefore been two-fold; firstly, to ascertain whether this deterioration is still active and what remedial measures and monitoring requirements need to be implemented; and secondly, to assess the suitability of past treatments and to consider the feasibility of adjusting the presentation of these high-quality paintings.'

THE HEAVEN ROOM

'The Heaven room is situated to the north of Sir William's Chamber. The painted ceiling illustrates the Ascension of Christ into Heaven. In the corners of the room cherubs hold music sheets of 'Three country dances in one' composed by Thomas Ravenscroft c.1609. On the frieze angels display symbols of the Passion. Unfortunately the paintings in the Heaven room have been heavily repainted and it is therefore

difficult to discern areas of the original paint layer. '

PREVIOUS INSPECTIONS AND CONSERVATION

'The conservation report by A.N.Stewart (1964) describes the condition of the scheme as similar to that in the Elysium room, noting the paintings as heavily obscured by discoloured varnish and repainting and exhibiting extensive flaking and cracking. Subsequently M.E.Keevil describes that the paintings had suffered large areas of loss and were cracking extensively as a result of the reinforcement treatment. In addition there was evidence of substantial salt activity.'

'Restoration during the 1970's included cleaning, repair, varnish and extensive repainting: 'The disintegrating plaster was revitalised using PVA as an adhesive and the areas of missing plaster were filled with cellulose filler. These were then smoothed down to the level of the paint surface and ground colour using Plaka casein waterproof paint as a base. The dirt was removed with an ammoniated alkaline methyl, cyclohexyl oleate solution. The layer of discoloured varnish was removed with acetone and white spirit. The areas of missing paint were retouched to match the original colour using oil paint from which the excess oil had been removed. A synthetic resin MS2(a) with a small amount of refined beeswax added was used to give the final glaze.'

Photographic Record

Bolsover Castle, Little Castle, wall paintings photograph list.

* = copy in studio file ^ = copy in report 1994

*A7002/13 Dec. 1965 Interior view of Heaven room, north-west wall.

18-11-69 A8144 General; Heaven A8144/29-32.

*A8144/30 Nov. 1969 Interior view of Heaven room, south-west wall.

*A8144/31 Nov. 1969 Interior view of Heaven room, south corner.

29-10-75 A9404 Heaven A9404/9-10 +14 +18-20.

*A9404/9 Oct. 1974 Heaven room, south-west wall.

*A9404/10 Oct. 1974 Heaven room, north-west wall.

*A9404/14 Oct. 1974 Heaven room, viewed from north-east.

*A9404/18 Oct. 1974 Heaven room, south-east wall.

*A9404/20 Oct. 1974 Heaven room, north-east wall.

*A9627/1 June 1976 Heaven room, north-west wall, north corner.^

*A9627/2 June 1976 Heaven room, south-east wall, south corner.

*A9627/3 June 1976 Heaven room, north-east wall.^

*A9627/4 June 1976 Heaven room, south-west wall.

*A9627/11 June 1976 Heaven room, north-east wall.

*A9627/12 June 1976 Heaven room, north-west wall, west corner.

*A9627/13 June 1976 Heaven room, ceiling, viewed from north-east.

*A9627/13A June 1976 Heaven room, ceiling, viewed from north-east.^

*A9627/14 June 1976 Heaven room, south-west wall, west corner.^

*A9627/15 June 1976 Heaven room, south-west wall, west corner.

*A(CN)9642/5 June 1976 Heaven room, ceiling, viewed from south-east.

*A(CN)9642/6 June 1976 Heaven room, north-west wall, north corner.

*A(CN)9642/7 June 1976 Heaven room, north-east wall, north corner.

*A(CN)9642/12 June 1976 Heaven room, south-west wall, west corner.

*A(CN)9642/13 June 1976 Heaven room, south-west wall, south corner.

*A(CN)9642/15 June 1976 Heaven room, south-east wall.

*A(CN)9642/16 June 1976 Heaven room, north-west wall, west corner.

29-10-76 A(CN)9642 Heaven A(CN)9642/5-7 +12-13 +15-16.

Bibliography

Faulkner, P.A., 'Bolsover Castle, Derbyshire', E.H. Guide Book, E.H., London, 1993 first published by E.H. 1985.

2 General Audit Information

Property name	BOLSOVER CASTLE	County	Derbyshire
Region	Midlands		
Location	Heaven Room		
Orientation	CEILING, FRIEZE		
Century 17th	Date	Height (cm) 100	Width (cm) 320
Auditor(s)	SS/JD	Start date	01/12/94

Overall condition score **2**

Recommendations

OVERALL RECOMMENDATIONS: THE ELYSIUM ROOM AND THE HEAVEN ROOM

'The paintings do not seem to be actively deteriorating but both of these high-quality schemes have been severely compromised by their poor presentation and excessive retouching, particularly in the Heaven room. Emergency treatment does not appear to be necessary (although access was limited during the present survey). However, it would be hoped that in both cases a programme of recording and analysis could be conducted, including an investigation of previous treatments to ascertain the stratigraphy of the original and repainted layers.'

'In the case of the Elysium room it would be preferable if this could lead to a programme of cleaning and sympathetic reintegration of background losses to improve the presentation of the scheme. In the Heaven room, tests to remove the repainting subject to the results of a preliminary investigation, followed by a similar approach to the presentation of the paintings would be preferred. However, such a project may prove to be technically complicated and also extremely time-consuming.'

'Both rooms would benefit from a similar environmental monitoring programme as that recommended for the ground-floor rooms to ensure that the internal environment can be maintained at a stable and appropriate level. In addition, the large ceiling cracks found in both rooms should be monitored.'

SPECIFIC RECOMMENDATIONS: THE HEAVEN ROOM

'The paintings are in fair condition but have been extensively repainted. The surface of the scheme is covered by a layer of dust and dirt and the same unsuitable polyfilla repairs as found in the Elysium room are present. There is also evidence for the extensive historic damage where large areas of presumably loose plaster have been repositioned and the losses repainted.'

'Although the paintings are in a generally stable condition, the original appearance of the scheme has been radically altered by retouching, some of which can be attributed to the 1970's conservation programme, although many areas appear to have been repainted at an earlier date. Ideally it would be preferable to remove recent and inappropriate retouching and approach the reintegration of the original paint layer to the benefit of the overall appearance of the original scheme. However, it is not clear whether such a drastic intervention would be feasible. Photographs taken prior to the restoration show that the original paint layer, especially on the frieze, is extremely damaged and an attempt to remove overlying layers may only complicate the already confused situation.'

'It is therefore recommended that a similar long-term approach is taken to that in the Elysium room: a programme of recording and analysis, including a full investigation of previous treatments to ascertain the stratigraphy of the original and repainted layers. This could also include cleaning tests to establish the possibility of removing or reducing the overpaint and varnish layers.'

'In the immediate future, fine cracks in the ceiling should be monitored for any signs of movement and some minor fixing is required. Historic cracks (which have been overpainted) indicate old movement and are probably stable. However, an assessment of the structural stability of the ceiling should be made. In addition, cleaning to remove surface dust and dirt should be undertaken. A similar environmental

monitoring programme to that undertaken in the Elysium room would also be preferred.'

In summary, treatment required includes:

SHORT-TERM:

- surface dirt and dust should be removed
- monitoring of cracks for signs of further movement
- environmental monitoring

LONG-TERM:

- recording and scientific examination
- limited fixing of fine cracks and losses on the west wall frieze
- possible cleaning and removal of retouching
- re-assessment of overall presentation

3 Audit Information: Technique

Property name	BOLSOVER CASTLE		
Region	Midlands	County	Derbyshire
Location	Heaven Room		
Orientation	CEILING, FRIEZE		
Century 17th	Date	Height (cm) 100	Width (cm) 320
Auditor(s)	SS/JD	Start date	01/12/94

Overall Condition Score 2

Stratigraphy

Layer type	Support Layer	Specific condition Score	2
Thickness	60 cm		

Comments

Stone support. The lower walls are covered by timber wainscot panels and the support is not currently visible. However the support was recorded on photographs taken in 1975 as rough dressed stone blocks.

Layer type	Render Layer 1	Specific condition Score	2
Thickness			

Comments

The render appears to be a light coloured fine lime/sand/hair plaster.

Layer type	Ground Layer 1	Specific condition Score	2
Thickness			

Comments

No ground layer is visible as the paintings are heavily overpainted. However it can be assumed that one is present.

Layer type	Paint Layer 1	Specific condition Score	1
Thickness			

Comments

Little of the original paint layer is visible as the surface has been heavily overpainted.

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

Property name	BOLSOVER CASTLE		
Region	Midlands	County	Derbyshire
Location	Heaven Room		
Orientation	CEILING, FRIEZE		
Century 17 th	Date	Height (cm) 100	Width (cm) 320

DETERIORATION AND DAMAGE

Deterioration phenomena

Type loss

Location Frieze, west wall.

Comments Two small losses (c. 0.1 x 0.2) are visible on the west frieze. These damages appear to be associated with recent (?) fine cracks.

Type cracking

Location Ceiling bed and frieze, several.

Comments Historic damage which has been overpainted. Largest crack runs around the perimeter of the ceiling bed, c. 20 cms from its edge (as also seen in the Elysium Room) and seems to be associated with some feature of the ceiling construction. 'Historic' cracks appear to be stable, however an assessment of the structural stability of the ceiling should be undertaken.

Type cracking

Location Frieze, especially west wall.

Comments Active cracking, fine network of cracks which are associated with recent small losses of paint.

ADDED MATERIALS

Accretions

Type dirt
Location Surface.
Comments Fine deposit.

Type dust
Location Surface.
Comments Fine deposit.

Coatings/Coverings

Type repainting
Location General surface.
Comments Possibly dates from the 19th century.

Type repainting
Location General surface.
Comments Most likely attributable to the 1976 conservation work.

Repairs

Type lime:sand
Location Lower edge of frieze, west wall.
Comments Not visible from floor level.

Type modern plaster
Location West wall, frieze.
Comments Large old damage, painted 'gun-metal' grey and therefore pre-dates the 1976 conservation work.

Type modern plaster
Location Ceiling, centre, to northern edge.
Comments Repair and re-insertion of original paint and plaster which appears to have fallen. Repair probably dates to the 1976 conservation work.

TREATMENT

Past Treatment

Type UNSPECIFIED **Date** 24/01/64

Person B.T. Wincap

Comments A letter from B.T.Wincap, Architect, to F.L.Rothwell, Superintending architect (24/01/64) states

'Mr Bailey has asked me to write to you about the wall paintings. The last time I visited the Custodian drew my attention to their condition. Damp and condensation appear to be causing deteriorations in several places, notably the Great Hall. Can they be examined by an expert who should be asked to give advice on treatment and future maintenance.'

Past Treatment

Type MONITORING CONDITION **Date** 02/03/64

Person A. N. Stewart

Comments A report on the condition of the paintings by A.N.Stewart, Chief Restorer (02/03/64) (EH correspondence file) states:

The Heaven Room.

The ceiling in oil on plaster, 10'2" x 9'2", shows Christ in Glory surrounded by Angelic Musicians. The frieze shows Cherubs with various emblems of the Passion. Soffit over window shows cherubims etc.

The ceiling.

Bad crazing and old repaintings. Darkened surface.

The frieze.

In bad state, flaking and cracks, old retouchings and repairs. Dirt varnish, etc.

Window Soffit.

Cracked and dirty, flaking, etc.

Recommendations.

The ceiling has the usual darkened varnish, but should respond well to careful cleaning. Cracks to be treated and retouched. The frieze is in a bad state and needs similar treatment to that in the Elysium Room. Soffit painting to be repaired and retouched to original after cleaning.'

Type UNSPECIFIED **Date** 02/03/64

Person A.N. Stewart

Comments A report on the condition of the paintings by A.N.Stewart, Chief Restorer (02/03/64) states

'It will be seen... that there is a vast amount of work to be carried out which will take some years to complete, as it is dependent on the roofs (sic) and structure being repaired before we start restoring the paintings on plaster. We will certainly have to face them for protection against vibrations but some repairs to loose plaster should be carried out in the meantime as there is danger of loss.

Condensation and surface chill is everywhere, especially on the plaster lunettes. This will not clear up until the structure is restored, and varying atmospheric conditions are taking their toll... work at the Castle would have to be carried out during the summer months, it would be impossible at any other time of year.'

Past Treatment

Type CLEANING **Date** 10/12/76

Person M. E. Keevil

Comments A report on conservation treatment, by M.E. Keevil (10-12-76) (EH correspondence file) states:

'The Heaven Room.

Painted ceiling and walls of cherubs and angels. Oil on plaster.

Condition.

Severe cracks in plaster and loss of paint surface due to dampness. Large areas of missing paint on the wall paintings was caused by the vibration of the drilling when reinforcement took place. Pieces of plaster had broken away from ceiling (in the area of the angel with drum) roughly 2 ft square. Efflorescence covered the wall facing door due to water seeping through the plaster. Covered with thick film of dirt and discoloured varnish.

Treatment.

The disintegrating plaster was revitalised using PVA as an adhesive and areas of missing plaster were filled with cellulose filler. These were then smoothed down to level of paint surface and ground colour using Plaka casein waterproof paint as a base. The dirt was removed with an ammoniated alkaline methyl, cyclohexyl oleate solution. The layer of discoloured varnish was removed with acetone and white spirit. The areas of missing paint were retouched to match the original colour using oil paint from which the excess oil had been removed. A synthetic resin MS2(a) with a small amount of refined beeswax was used to give the final glaze.'

Past Treatment

Type CONSOLIDATION **Date** 11/12/76

Person M. E. Keevil

Comments A report on conservation treatment, by M.E. Keevil (10-12-76) (EH correspondence file) states:

'The Heaven Room... The disintegrating plaster was revitalised using PVA as an adhesive and areas of missing plaster were filled with cellulose filler.'

Past Treatment

Type PRESENTATION/REINTEGRATION **Date** 12/12/76

Person M. E. Keevil

Comments A report on conservation treatment, by M.E. Keevil (10-12-76) (EH correspondence file) states:

'The Heaven Room... areas of missing plaster were filled with cellulose filler. These were then smoothed down to level of paint surface and ground colour using Plaka casein waterproof paint as a base... The areas of missing paint were retouched to match the original colour using oil paint from which the excess oil had been removed.'

Past Treatment

Type APPLICATION OF COATING **Date** 13/12/76
Person M. E. Keevil
Comments A report on conservation treatment, by M.E. Keevil (10-12-76) (EH correspondence file) states:

'The Heaven Room... A synthetic resin MS2(a) with a small amount of refined beeswax was used to give the final glaze.'

Past Treatment

Type MONITORING CONDITION **Date** 02/03/78
Person P.J. Keevil
Comments A memo on state of work by P.J. Keevil (02-03-78) (EH correspondence file) states:

'Heaven Room
Damp through ceiling in area above door, allow to dry, check then revarnish.'

Past Treatment

Type UNSPECIFIED **Date** 13/04/78
Person M.R. Apted
Comments A report on restoration at the Little Castle by M.R. Apted (13/04/78) states:

'I was asked to visit Bolsover with representatives of IAM, AM Works and the Regent's Park Conservation centre because lack of clearly defined policy had been hindering progress and because it was thought my previous experience with painted decoration in Scotland might be helpful. I thought the paintings were being over-restored, but since with the exception of the 'Hell' room [Elysium Room] the principal scenes had already been largely completed I recommended that with the exception of that one room our existing policy should be carried to its logical conclusion...'

Proposed Treatment

Type CLEANING **Date** 01/12/94
Person SS/JD
Comments Surface dirt and dust should be removed, probably using simple mechanical methods.

Type ENVIRONMENTAL MONITORING **Date** 01/12/94
Person SS/JD
Comments A similar environmental monitoring programme to that undertaken in the Elysium room would also be preferred.

Type FILLS/REPAIRS INSERTION **Date** 01/12/94
Person SS/JD
Comments A small amount of fixing is required to fine recent cracks and losses on the west wall frieze.

Type MONITORING CONDITION **Date** 01/12/94

Person SS/JD

Comments Monitor 'historic' and recent cracking for signs of further movement.

Type TECHNICAL ANALYSIS **Date** 01/12/94

Person SS/JD

Comments It is recommended that a similar long-term approach is taken to that in the Elysium room: a programme of recording and analysis, including a full investigation of previous treatments to ascertain the stratigraphy of the original and repainted layers. This could also include tests to establish the feasibility/possibility of removing or reducing the overpaint and varnish layers.
