

St Mary the Virgin Church in Great Milton

Treatment Report

March 2024



Condition works of Dormer Monument

Report prepared for:
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TREATMENT REPORT

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Job No.	Issue No.	Description	Issue Date	Reviewed with
23308	1	Treatment report	July 2023	

PROJECT SUMMARY

PROPERTY: St Mary the Virgin Church in Great Milton

REGION: Oxfordshire

LOCATION: The tower

OBJECT: Tomb, monument

MATERIALS: Alabaster, marble, limestone, gilding and polychrome

WRITTEN BY: Kris Zykubek ACR

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1.0 INTRODUCTION

Cliveden Conservation Workshop Limited (CCW) were invited to provide conservation works to the Dormer Monument at St Mary the Virgin Church in Great Milton. This report includes all details regarding conservation techniques, use of materials, and photographic documentation of the object before, during and after completion of conservation treatment.

All details regarding construction, history and significance of the monument are included in the Condition Report prepared by Kris Zykubek ACR in 2017.

Conservation works were carried out in February 2024 by Kris Zykubek ACR and Jenna Burrell, CCW Senior Conservators.

Before undertaking works, CCW conservators provided Risk Assessment, COSHH Assessment and Method Statement which were sent to the architect and PCC.

2.0 TREATMENT

Before undertaking conservation works, the area surrounding the monument was cleared of equipment and church furniture; CCW conservators also provided appropriate protection to the floor, and a mobile tower (installed by PASMA certified operatives) allowing full access to the top sections of the monument.

Conservators were equipped with appropriate PPE including face masks with PP3 and chemical filters.

All operations were carried out by experienced conservators consistent with conservation ethics. All stages of the works were also preceded by providing small trials.

2.1 Cleaning

The first stage of the works was **dry cleaning**. This operation was done with the use of vacuum cleaners equipped with HEPA filters. More stubborn dirt was gently brushed towards the vacuum hose with small paint brushes. Most of the dust, dirt, cobwebs and dead insects were located on the top of the canopy of the monument. During this process, conservators also vacuumed the window sill and lower part of the mullion of the western window, located above the monument.

Polychromed and gilded areas of the monuments were also cleaned with smoke sponges. This allowed gentle and safe removal of stubborn dirt from the delicate decoration without risk of damaging the treated surface.

The result of dry cleaning was very satisfactory both for the client and CCW conservators.

During the works, conservators found on the top of the canopy some fragments of carved alabaster and a polychromed wooden statue of a dog. All these artefacts were collected and given to the client.

Wet cleaning was done with various types of solvents:

- V&A mix (white spirit mixed with deionised water in ratio 1 : 1, with a small addition of non-ionised detergent Synperonic A7) was used for cleaning the alabaster surface. The mix was applied on small areas of the stone surface with soft paint brushes, worked and removed with cotton swabs. After cleaning of

each small section (approximately 5cm x 5cm) the treated surface was neutralised with deionised water (mist sprayed) and dried with a clean cotton wool swab. This very time-consuming technique allowed the use of a minimal amount of solvent solution and water that potentially could affect the alabaster surface (alabaster is a water soluble limestone). Due to the presence of resistant dirt, wet cleaning with V&A mix was repeated on most sky facing sections of the monument.

- Gilding was cleaned with a solution of tri-ammonium citrate (TAC) in deionised water (2.5% TAC in water). The solution was applied on the cleaned surface with cotton swabs on wooden skewers. After cleaning, the gilded surface was neutralised with deionised water and dried with cotton swabs.
- Deionised water with a small addition of non-ionised detergent Synperonic A7 was used for cleaning the black marble/limestone columns. Again, after cleaning the stone surface was neutralised with deionised water and dried with cotton swabs.

Cleaning also included trials of removal of red stains located on the carved decorative alabaster panel (battle scene at the front of the monument) and on the right hand side of the monument. This red staining has been caused by the slow corrosion of ferrous fixings used for connecting the monument elements (probably during moving the monument from the southern aisle to the tower in 1860). Trials included application of poultices containing a solution of 5% and 8% TAC in water. Poultices in the form of cotton swabs pre-dampened in TAC solution were applied to the treated stone surface for 0.5, 1, 2, 4 and 8 hours. After these different periods of time there were no visible changes in the red discoloration. After 8 hrs of poulticing, small areas with salt efflorescence around the poultice were observed. This fact clearly indicated that poulticing was not successful in this case.

2.2 Repairs

Dry and wet cleaning also allowed the opportunity to carry out push/pull tests to all elements of the monument. Any identified unstable or loose fragments of the monument were appropriately stabilised as described below.

Structural repairs were restricted to the following isolated areas of the monument:

- Two decorative ornaments on the top of the canopy (left hand side of the monument) were found to be loose. An old plaster joint was carefully removed

and small threaded stainless steel dowels (A4 marine grade; 4mm diameter) were provided as connection between the two detached sections of stone. The dowels were anchored with polyester resin and the joint was grouted with plaster of Paris.

- The effigy of death carved in white alabaster was found to be slightly loose (far left corner of the canopy). Stabilisation of the small figure was achieved by injection of plaster of Paris grout into the joint between the base of the statue and the socle on which it was mounted.
- The left foot of the central effigy (Ambrose Dormer) was found to be loose in two sections. After dismantling the loose elements, it was found that they were connected with oak pegs and wide open joints filled with pigmented plaster. The wooden pegs were replaced with stainless steel dowels (6mm diameter) set on polyester resin. Missing fragments of stone in the wide open joints were filled with plaster of Paris.
- Loose fragments of carved ostrich feathers on the knight's helmet (mounted on small socle beneath the western window sill) were re-adhered with the use of a small amount of polyester resin. Again, remaining open joints were repaired with plaster of Paris.
- A section of the detached carved volute above one of heraldic shields (far right hand side of the tomb pedestal) was re-adhered with a small amount of polyester resin and plaster.

Fill repairs, deeper than 3mm were completed with plaster of Paris. Plaster (with the consistency of double cream) was applied on repaired stone with small tools in different shapes. When the plaster was still damp, its surface was modelled to the desired shape and finish with small tools, scalpels and even with cotton swabs pre-dampened in water. Losses of the original material shallower than 3mm were repaired with acrylic filler (Flügger filler) commonly used in conservation works.

The largest fill and reconstruction repairs were located at the lowest part of the monument, by the floor. The original stone in that area was significantly deteriorated and some areas of the moulding were missing. The main reason for this type of deterioration and damage was ingress of capillary water and salt efflorescence within the soft limestone. In this case, it was decided to provide large fill repairs made of two layers of mix. The deeper layer was made of 'mortar' based on plaster of Paris mixed with chalk dust and granules (up to 4mm diameter) in ratio 1:1. This mixture was very light, porous and due to presence of chalk dust had great adhesion to the deteriorated limestone. The top, levelling layer (1-3mm thickness) was made of plaster of Paris

only. The shape of the missing moulded alabaster section in the left corner of the front elevation of the monument was reconstructed in the same manner. Application of these large fills significantly improved the appearance of the monument.

It must be highlighted that the amount and level of reconstruction repairs had been discussed with the architect and PCC representatives prior to conservation works. The aim of the fill and reconstruction repairs was to unify the general appearance of the object (repointing of all open joints and cracks) rather than to provide full reconstruction of all missing details.

2.3 Retouching

All new repairs made in plaster of Paris, after drying, were painted with a thin layer of acrylic gesso before being retouched to blend in colour with surrounding areas of stone. The retouching was completed using acrylic paints Winsor&Newton Professional Series, with a high content of stable pigments. The paints were applied on plaster repairs as a water dilution, creating layers of 'washes', which helped to recreate the colour of alabaster with its natural veining.

The result of retouching was very satisfactory and all repairs blended naturally with the surrounding alabaster surface.

After discussion with the architect and PCC representatives, it was decided that two large areas of alabaster covered with red iron staining should be retouched (they were located at the front of the monument on an elaborate carved battle scene). As mentioned earlier, it was not possible to remove the stains with the use of poulticing techniques. Retouching was completed with acrylic paints diluted in water and applied to the alabaster surface with sponges. This method was successful and the retouched areas blended with the surrounding stone surface very well.

2.4 Waxing and polishing

The last stage of the works was application of a single layer of microcrystalline wax on the stone surface. The purpose of this operation was not only renewal of the natural 'gloss' of alabaster but also to provide a protective layer that may reduce the amount of settling dust on the stone surface.

The shafts of the columns (carved in black marble) were treated with microcrystalline wax mixed with ivory black pigment. This allowed unification of faded colours on the black stone surface.

Renaissance wax was applied with soft paint brushes, and after drying was polished with horse hair brushes and lint-free cloths.

Microcrystalline wax was applied to the monument excluding the lowest parts of it (vertical walls of the chest), to prevent any potential moisture entrapment within the alabaster caused by ingress of capillary water.

Condition Code Summary before conservation

Stability	iii	(i – stable; iv – highly unstable)
Condition	C	(A – excellent; D – poor):
Treatment priority	4	(1– no treatment; 4 – urgent)

Condition Code Summary after conservation

Stability	iii	(i – stable; iv – highly unstable)
Condition	A	(A – excellent; D – poor):
Treatment priority	1	(1– no treatment; 4 – urgent)

3.0 FURTHER RECOMMENDATIONS

1. Continue environmental monitoring of the microclimate around the monument. The monitoring commenced in January 2024 and should be carried for 1 year.
2. Any potential changes within the monument (e.g. appearance of new cracks, joints or any other signs of structural movement) should be noted, photographed, monitored and reported to the architect or Accredited Stone Conservator-Restorer.
3. Reapplication of a protective layer of microcrystalline wax should be carried out after 5-10 years. This should be preceded by reassessment of the condition of the stone surface.
4. With any questions regarding this report please contact Kris Zykubek ACR, kris@clivedenconservation.com or 07540201198

LIST OF APPENDICIES

- A **Condition code summary**
- B **Photographic record**

APPENDIX A – CONDITION CODE SUMMARY

CONDITION (A–D)		
A	Excellent	Little or no damage evident
B	Good	Minor amount of damage and/or loss of original and added material, or with light discoloration or accretions
C	Fair	Noticeable damage and loss and appears disfigured with visible accretions
D	Poor	Considerable and/or significant loss of original or added material or major damage/breakage or disfigurement. May be endangering other objects and surfaces
STABILITY (i-iv)		
i	Stable	Condition not expected to deteriorate within the next 10+ years
ii	Potentially unstable	Condition not expected to deteriorate within next 5-10 years
iii	Unstable/Steady deterioration	Change in condition likely to be evident between 1 –5 years
iv	Highly unstable	Change in condition likely to be evident within 1 year
TREATMENT PRIORITY (1-4)		
1	No treatment	Conservation treatment not required beyond routine maintenance
2	Desirable	Conservation treatment desirable but not necessary to ensure the long-term stability of the object, for instance, conservation treatment may be required for curatorial reasons
3	Necessary	Conservation treatment necessary to avoid further deterioration, loss or undesirable strain on an object and/or loss of significance (evidential or artistic value)
4	Urgent	Conservation treatment required to prevent significant deterioration in condition of object and/or loss of significance (evidential or artistic value). This may include structural vulnerability, risk of total loss of entire object or part of object, or risk of accident to visitors/users

APPENDIX B – PHOTOGRAPHIC RECORD






	
<p>Fig. 1: general view of Dormer monument before conservation works</p>	<p>Fig. 2: monument after completion of the treatment</p>
	
<p>Fig. 3: large amount of dirt, dust and dead insects on the top of the monument canopy</p>	<p>Fig. 4: dirt and cobwebs on the window sill above the monument</p>
	
<p>Fig. 5: sky facing surfaces before dry cleaning</p>	<p>Fig. 6: dirt and cobwebs on decorative elements of the monument</p>



Fig. 7: one of the effigies during dry cleaning process



Fig. 8: the same figure after completion of the cleaning works



Fig. 9: carved alabaster elements (and wooden dog figure) found on the top of the canopy during cleaning works

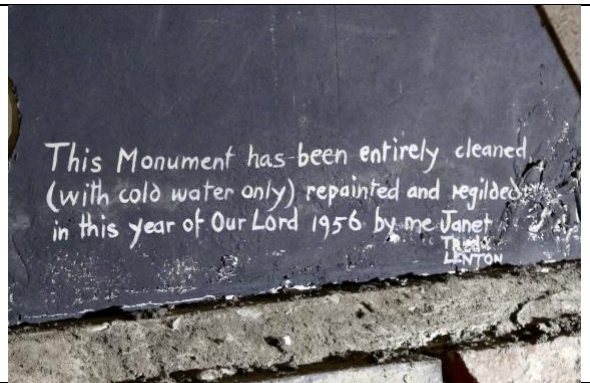


Fig. 10: inscription found on the monument (related to previous conservation works)



Fig. 11: square section of alabaster before wet cleaning; noticeable difference between cleaned and non cleaned stone surface



Fig. 12: alabaster and gilding after cleaning with appropriate solvents

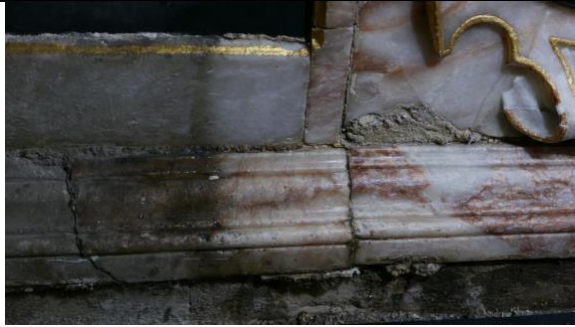


Fig. 13: lowest section of alabaster moulding before and after cleaning



Fig. 14: the cleaning process revealed the original beauty of the alabaster



Fig. 15: the head and the ruff collar after wet cleaning



Fig. 16: the shield after cleaning with V&A mix and gilding after cleaning with TAC (2.5%)



Fig. 17: alabaster and gilding before cleaning



Fig. 18: alabaster and gilding in its true colours and glow after completion of cleaning



Fig. 19: highly decorative knight's helmet (after cleaning), completely hidden on the top of the canopy



Fig. 20: alabaster and gilding after cleaning; visible original tool marks on the stone surface



Fig. 21: capital of the column before wet cleaning



Fig. 22: warm colours of the stone and glow of gilding revealed after cleaning



Fig. 23: battle scene panel with visible open joints, cracks, deterioration of stone in lowest part, discolorations



Fig. 24: ferrous stains in top right corner of the panel



Fig. 25: ferrous discolorations of stone



Fig. 26: open crack on alabaster panel

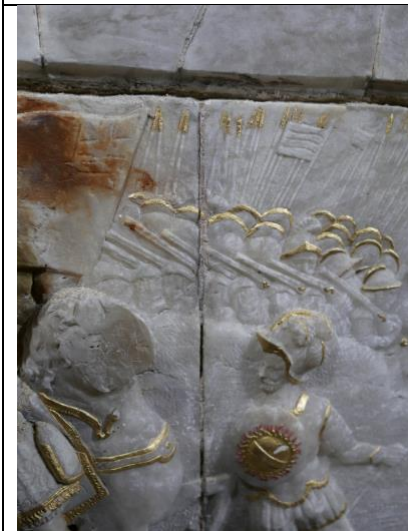


Fig. 27: wide open joints with partly or fully missing original pointing



Fig. 28: missing stone corner (alabaster) in the left hand side of the panel



Fig. 29: reconstructed missing corner and the lowest section of alabaster (by the floor); photograph taken during retouching works



Fig. 30: the battle scene panel after completion of conservation treatment



Fig. 31: open crack previously repaired with plaster



Fig. 32: the same section after repointing, reconstruction repairs and retouching



Fig. 33: plaster and Flügger fills on the marble columns



Fig. 34: plaster repairs on the column



Fig. 35: discoloration of the black marble column shaft



Fig. 36: the shaft after repairs and treatment with wax mixed with ivory black pigment



Fig. 37: dismantled, fractured section of the leg of the effigy of Ambrose Dormer; visible previous mortar repair and wooden dowel



Fig. 38: detached elements of the leg before reinstallation



Fig. 39: the fragments after re-adhesion and with plaster fills to open joints



Fig. 40: the leg after reattachment and completion of retouching



Fig. 41: detached decorative ornament



Fig. 42: another ornament carved in alabaster, before re-setting



Fig. 43: detached volute above the heraldic shield



Fig. 44: the same detail after re-mounting the missing element



Fig. 45: coat of arms with horizontal fracture across the shield; noticeable ferrous staining of the alabaster



Fig. 46: the same areas after repairs and retouching



Fig. 47: one of the flowers carved on the battle scene front panel; the flowers were almost non visible before cleaning



Fig. 48: semi transparency of the alabaster panel indicating the highest quality of material used for construction of the monument



Fig. 49: anatomically accurate effigy of Death. The cape, backbone, ribs and skull carved in single block of stone



Fig. 50: beautifully carved details of one of the figures located on the top of the canopy



Fig. 51: view of detailed carving, 'stitches' between sections of the blanket under the Ambrose Dormer effigy



Fig. 52: the only painted (not carved) coat of arms on the cornice of the canopy. Note the two previous trials of the location of the shield (painted probably in 1956)



Fig. 53: one of two fixing holes located behind the Ambrose Dormer effigy. Presumably used for mounting some decorative element when the monument was free standing in the southern aisle before 1850's



Fig. 54: another fixing hole repaired with plaster, presumably in 1956