

1-10 Cambridge Gate

Condition Report

June 2021



APPENDIX A

Paint Analysis Report

Report prepared for:
**Crown Estate Paving
Commission**

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CONDITION REPORT

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Job No.	Issue No.	Description	Issue Date
20240	1	Condition survey report	25.08.21

PROJECT SUMMARY

REGION: County: Greater London
Authority District: Camden (London Borough)

PROPERTY: 1-10 Cambridge Gate, Regents Park, London

LOCATION: Two sets of gate piers at either end of the sweep in front of the property.
National Grid Reference: TQ 28742 82468

OBJECTS: Four terracotta statues of the Three Graces standing on plinths bearing the words, CAMBRIDGE GATES.

MATERIALS: Statues: Terracotta, Coade stone type, unglazed stoneware, paint remains
Plinths: Limestone

SURVEYED BY: Amy Anderson, ACR and Jenna Burrell

WRITTEN BY: Amy Anderson

APPENDIX A PAINT ANALYSIS

Paint Analysis Report, Catherine Hassall, May 2021

THE THREE GRACES

The terracotta statues set on limestone plinths at Cambridge Gate on Regent's Park Inner Circle, were made in circa 1880

The statues have been stripped, but traces of paint remain. Samples were taken from three of the groups by Amy Sanderson for Cliveden Conservation. Samples from the statues were labelled 'S'

Samples from lettering on the plinths were labelled 'P'.

Southernmost Group [CG1]

- S1 Figure 1, top of head
- S2 Drapery, by foot
- S3 Right proper leg, drapery
- S4 Drapery fold, at calf level
- P5+6 Lettering

Next group north [CG2]

- S7 Figure 2, paint over sulphated layers
- S8 Figure 3, under arm, by waist ribbons
- P9 Letters E and A

Next group north [CG3]

- S10 Lower drape pattern
- S11 Figure
- P12 Letter S
- P13 Letter E

Northernmost group [CG4]

- P14+15 Letters A and N

Examination procedure the samples were examined under low magnification and then a selection of the pieces was mounted in cold-setting polyester resin to be cut and polished as cross-sections. The sections were compared, and material from key layers was dispersed on glass slides and the pigments identified using a polarising light microscope.

RESULTS

Earliest finishes on Statues

The earliest coatings on the terracotta figures were stone-coloured limewashes [see Sample 7, p.4].

It is not possible to tell if any of these limewashes date back to 1880, but four, possibly five, lots of limewash were found in one sample, and the practice of coating the statues in this fashion must have extended over a long period.

Treatment after the Second World War

At some point in the second half of the twentieth century the early coatings must have been largely cleaned off, because their remains were only found in four of the eleven samples taken from the figures.

The cleaned terracotta surface of the statues was then coated with an organic layer presumably applied as a sealant. In the cross-sections, that layer appears brown [Sample S2, p.3], but this may be partly due to dirt. The sealant worked its way down between the remains of early layers [see Sample S11, p.4]

The statues were then painted with a buff-coloured alkyd paint. The main material in this paint is titanium dioxide white, a pigment first widely used for paints after the late 1950s/early 60s.

Final paint scheme on Statues

Following repairs, the statues were repainted, this time with an off-white alkyd paint containing silicate particles to give it a rough texture.

In Sample S1, taken from a repaired head, this was the only paint layer present.

Gold paint on Plinth inscriptions

The samples taken from the letters of the inscriptions show 'gold' paint based on brass filings in a shellac medium. This paint was later covered over with solid black paint.

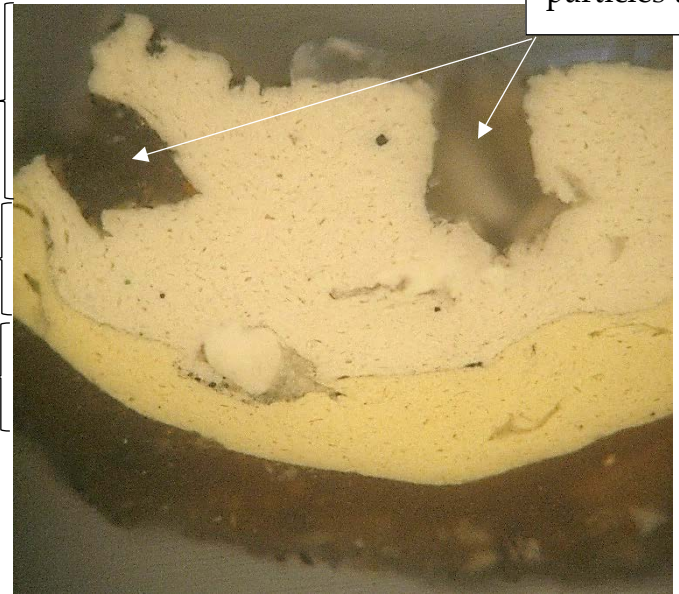
'Gold' paint of this type was not in use in the 1880s, and the coating is likely to have been applied in the twentieth-century, probably after the Second World War when the statues were coated with alkyd paints.

The black could have been applied when the groups were painted for the last time.

SAMPLE CG1-S2

Drapery, by foot

off-white alkyd paint
post-WW2
buff-coloured alkyd paint
sealant



added sand
particles to

SAMPLE CG1-S3

Drapery over right leg

final paint scheme
post-WW2 buff alkyd paint
dirt and sealant
earlier limewash layer



Detail of the limewash

Applied in more than one layer, it is mostly calcium carbonate but contains ochre and carbon black



SAMPLE CG2-7

Figure 2 - paint over sulphated underlayers

Showing four, possibly five, layers of stone-coloured limewash

down
Sealant applied after
WW2 has soaked
between the layers



SAMPLE CG3-S11

Statue

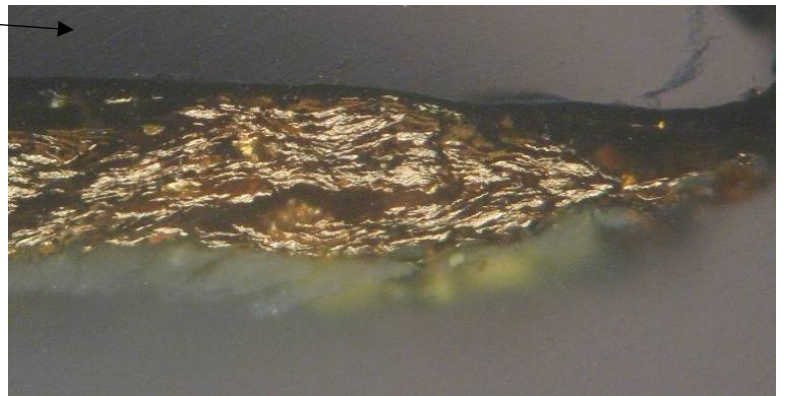
Between the limewashes are layers of dirt as well of some of the sealant which worked its way down through the layers.



SAMPLE CG2-P9

Letters E & A on plinth

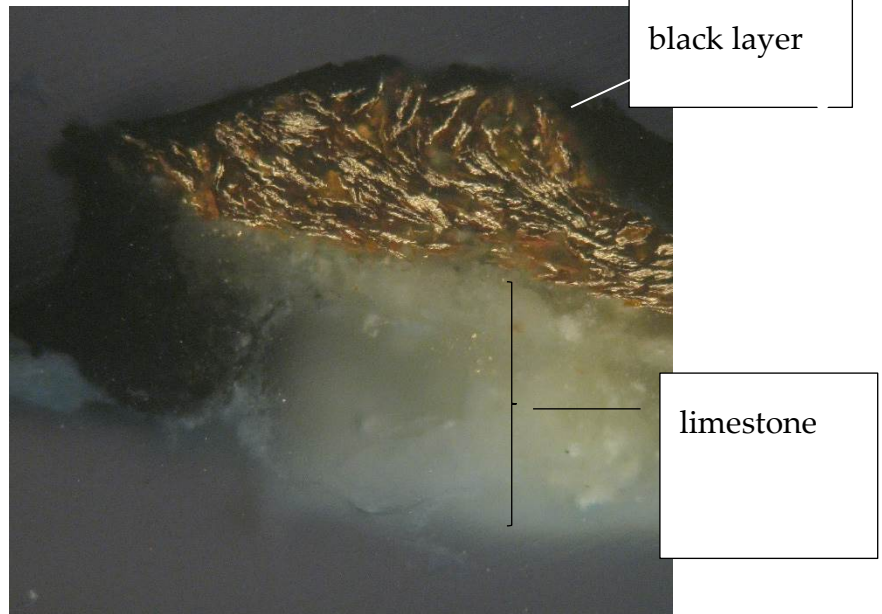
'gold' paint based on
brass filings



SAMPLE CG3.P12

Letter C on plinth

Showing black paint over
earlier 'gold' paint



Paint Analysis Report, Catherine Hassall, July 2021

THE THREE GRACES

The terracotta statues, set on limestone plinths at Cambridge Gate on Regent's Park Inner Circle, were made in circa 1880

The statues have been stripped, but traces of paint remain. Samples were taken by Amy Anderson for Cliveden Conservation.

The first set of samples were taken in May and labelled 'S' for samples taken from the statues, and 'P' for samples taken from lettering on the plinths. A preliminary report was produced.

A second set of samples were taken in July, labelled B1-B7 and the original report was revised to include the new information.

Samples taken		Southernmost Group [CG1]
May 2021	S1	Figure 1, top of head
	S2	Drapery, by foot
	S3	Right proper leg, drapery
	S4	Drapery fold, at calf level
	P5+6	Lettering
		Next group north [CG2]
	S7	Figure 2, paint over sulphated layers
	S8	Figure 3, under arm, by waist ribbons
	P9	Letters E and A
		Next group north [CG3]
	S10	Lower drape pattern
	S11	Figure
	P12	Letter S
	P13	Letter E
		Northernmost group [CG4]
	P14+15	Letters A and N

Samples taken	B1	MP1 – letter ‘B’
July 2021	B2	MP1 – letter ‘M’
	B3	MP3 – letter ‘G’
	B4	MS4.1 - 3 rd ivy up
	B5	MS4.1 – left drapery, under ivy
	B6	MS4.1 - red seen on ivy, left leg
	B7	MS2.2 – scrapings of red on original statue surface

Examination procedure The samples were examined under low magnification and then a selection of the pieces was mounted in cold-setting polyester resin to be cut and polished as cross-sections. The sections were compared, and material from key layers was dispersed on glass slides and the pigments identified using a polarising light microscope.

Original decoration

The statues were given a coat of reddish limewash, tinted with a red iron oxide pigment. Traces of this were found on the terracotta surface in a couple of samples [see B7, p.8], but the full layer can be seen in Sample B6, p.7.

The letters on the limestone plinths were gilded. A dull yellow undercoat based on ochre was applied first, followed by oil gilding over a clear oil size [see Sample B1, p.7].

Second decoration

The red was not repeated, and the statues may now have been coated with a stone-coloured limewash. The figures went on to be painted a further three, possibly four times using similar coloured limewashes, and so the practice must have started quite early [see Sample S.7, p.5].

The letters were re-gilded. A yellow undercoat based on lead white mixed with red and yellow iron oxides was applied first, followed by oil gilding over a clear oil size.

Third decoration

The statues continued to be coated with stone-coloured limewashes.

The letters were probably re-gilded, but only the yellow undercoat has survived. It is a mixture of lead white and ochre.

Fourth decoration

The statues were once again coated with limewash, but this was more yellow in tone than the earlier coatings.

On the plinths, a coat of lead white oil paint was applied over the earlier gildings, and then the letters were once again oil gilded, using gold leaf laid over a yellow undercoat based on pure ochre.

The use of lead white means this decoration must have taken place before the Second World War.

Since the Second World War

At some point in the second half of the twentieth century the early coatings on the figures and the early gildings on the plinths must have been largely cleaned off, because their remains were only found in eight of the eighteen samples taken.

The cleaned terracotta surface of the statues was then coated with an organic layer presumably applied as a sealant. In the cross-sections, that layer appears brown [Sample S2, p.4], but this may be partly due to dirt. The sealant worked its way down between the remains of early layers [see Sample S11, p.5]

The statues were then painted with a buff-coloured alkyd paint. The main material in this paint is titanium dioxide white, a pigment first widely used for paints after the late 1950s/early 60s.

This may have been the moment when 'gold' paint based on brass filings was used to fill in the letters on the plinths [see Sample P12, p.6].

Final paint scheme

Following repairs the statues were repainted, this time with an off-white alkyd paint containing silicate particles to give it a rough texture. In Sample S1, taken from a repaired area, this was the only paint layer present.

The earlier 'gold' paint on the lettering was now covered over with a layer of solid back paint.

SAMPLE S2

CG1 - Drapery, by foot

off-white alkyd paint
post-WW2
buff-coloured alkyd paint
sealant



SAMPLE S3

CG2 - Drapery over right leg

final paint scheme
post-WW2 buff alkyd paint
dirt and sealant
stone-coloured
limewash layer



Detail of the limewash

Applied in more than one layer, it is mostly calcium carbonate but contains ochre and carbon black



SAMPLE S7

CG2 - Figure 2 - paint over sulphated underlayers

Showing four, possibly five, layers of stone-coloured limewash

Sealant applied after
WW2 has soaked down
between the layers



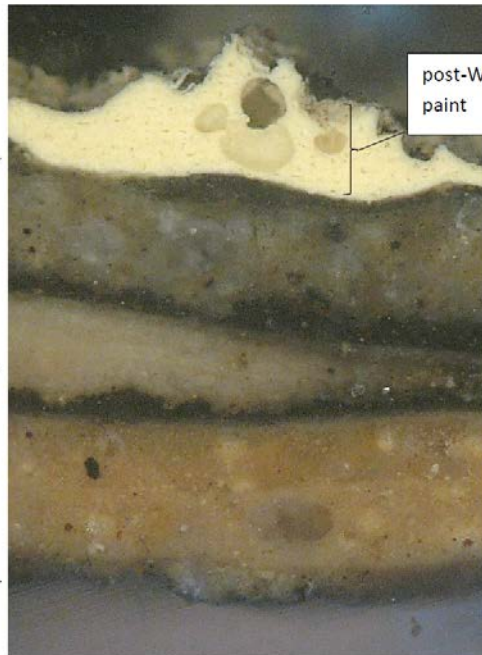
SAMPLE S11

CG3 - Statue

Between the limewashes are layers of dirt as well of some of the sealant which worked its way down through the layers.

stone-coloured limewashes

post-WW2
paint



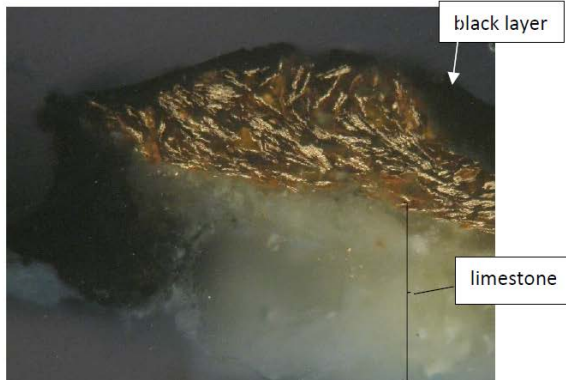
SAMPLE P12

Letter C on plinth

Showing black paint over
earlier 'gold' paint

black layer

limestone



SAMPLE B1
MP1- letter 'B'

late C20th 'gold' paint

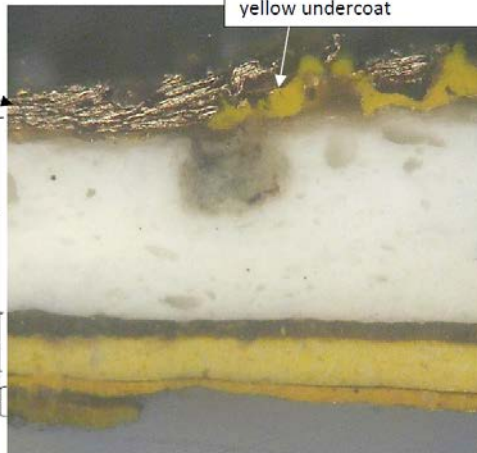
Showing 4 lots of gilding
applied before WW2

4th gilding
over white paint
based on lead white

3rd gilding
yellow for 2nd gilding

1st gilding

gold leaf of 4th decoration on
yellow undercoat



Detail of the bottom layers



SAMPLE B5

MS4.1 – left drapery, under ivy

Fragment (i)

Showing layers of limewash
under the later C20th alkyd paints

The reddish colour of some of
them is probably due to the
brown sealant which has
soaked down into them.



Fragment (ii)

No sealant in this piece



SAMPLE B6

MS4.1 – red on ivy, left leg

A deep red limewash layer
tinted with red iron oxides



SAMPLE B7

MS2.2 – scrapings of original red

Showing surface of a terracotta
fragment with reddish layer on
top



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Report no.C713b

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