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Results of Architectural Paint Research to the exterior of 9 Conduit Street, Mayfair

November 2019

SKETCH, 9 CONDUIT STREET, MAYFAIR

Summary

Project	Investigation of architectural paint finishes to selected exterior features of 9 Conduit Street, Mayfair
Address:	Sketch 9 Conduit Street Mayfair London W1S 2XG
List Entry Number:	1219898
Listing:	Grade II*
Date first listed:	24th February 1958
National Grid Reference:	TQ 29056 80951
Name and address of Client	[redacted] T/A Sketch 9 Conduit Street Mayfair London W1S 2XG
Name and address of Conservator	Hirst Conservation Limited Laughton, Sleaford Lincolnshire NG34 0HE
Date of works	November - December 2019
Author(s) and date of investigative report	[redacted] Hirst Conservation Ltd
Methods employed	Photographic recording; cross sectional analysis; uncovering of historic paint layers by mechanical means; production of report.

The following document discusses the results of architectural paint research of selected architectural features of the 9 Conduit Street, Mayfair. All results are based on interpretation through research of currently available archive documentation and investigation of paint archaeology and may be superseded should further evidence become available.

Executive Summary

At the time of visiting the property for sampling the works to renew the appearance of the façade had been stopped and, as a result, the appearance and condition of the paint films were found to be disturbed or partially removed. The façade still contains a reasonable amount of historic paint films the extent of which is discussed as much as practicably possible in this report.

Prior to attending site, the paint researcher had been informed that the slurry coat had been removed and some further application of a Keim Granital ® paint had been applied[1]. It was evident that when the works were halted in the summer of 2019 that the paint stripper had not been completely removed from some surfaces and this should be addressed as soon as the works recommence[2].

There is evidence in the samples taken from across the façade that a significant amount of paint archaeology remains. It is understood from conversations with the client's representative that there was significant covering up of architectural detail by the successive application of paint and that paint removal was required to sharpen up the edges and improve the aesthetic appearance of the building. The preclusion of architectural detail was apparent to a number of features seen during the site visit.

The following image taken from the egg and dart moulding from the capital between the second and third storeys shows the extent of the thickness of the paint films (including a closeup detail to the right-hand side)

The photomicrograph shown overleaf represents the sample taken from the Ionic capital to the upper storeys to the façade of the building and shows the extent of the surviving lead-based oil paints. It should be stated that is not known how many schemes of decoration have been removed as part of the paint removal process prior to the conservators visit.

[1] Reference to slurry coat quoted from discussion with the architect and exact details have not been quantified.
[2] It is understood that a proprietary paint stripper had been used, the details were not given.

The extent of surviving paint archaeology to some of the architectural facets would indicate that the building has been successively redecorated without removal of existing applied decoration. However, there are architectural facets that only retain 20th century paint films indicating that these elements have either experienced failure of applied decoration or render coat or entire replacement of architectural features[3].

What is evident from analysis of the surviving paint archaeology is that the initial lead-based oil paint schemes were fairly uniformly applied in pale stone colours with the earliest scheme seen containing distinctive red lead pigments to the undercoat. Further appraisal of the samples also indicated that there is a significant dirt film between the substrate and the first applied decorative scheme indicating that the building was probably undecorated in its initial appearance.

During the 20th century a period of alternating off-white and grey colour schemes were used, this may correlate to the time when the House of Dior took over the lease of the building as noted by the reference to the use of grey in the interiors[4].

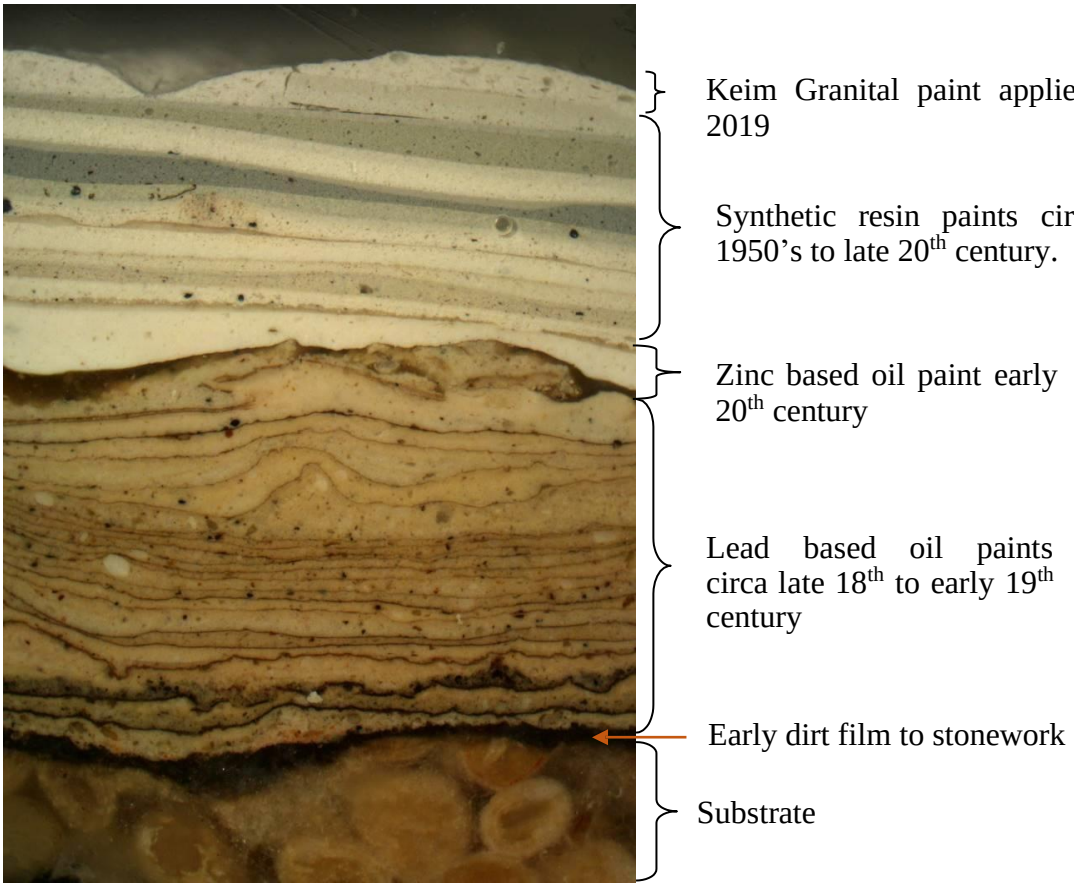


Figure 1: Sample 23 from the capital to the second floor

Exposure of the decorative schemes by careful uncovering of the paint films has not been included in the scope of works due to the unknown extent of surviving paint films prior to sampling. Where further removal of paint archaeology is to be proposed then this recording should be undertaken prior to further paint stripping.

[3] Appraisal of some of the archival images of the building show a change in the appearance of the windows sometime in the mid to latter half of the 20th century.
[4] See Section 2.2 History & Description

Contents

1. Introduction

The following document records the investigation of the painted decoration to selected exterior features of 9, Conduit Street, Mayfair W1S 2XG. The aim of this programme of paint research is to understand the nature of applied decoration the exterior architectural facets of the building. The research was undertaken at the request of Chris Jeffcoate from Manser Architects acting on behalf of the client. At the time of sampling the building had been partially stripped of applied exterior decoration and therefore, the scope of works was to understand the nature and extent of the surviving applied decoration and to record it prior to a further LBC application by the client.

An architectural paint researcher from Hirst Conservation attended site on 28th November 2019 to take samples for cross sectional analysis. A return visit to site for the uncovering and recording of decorative schemes was not included in the scope of works due to the unknown nature of the surviving decoration.

However, it was advised that, should sufficient applied decoration have survived following paint stripping, a return visit to site may be proposed.

2. Definitions of the Aims of the Project, Discussions of the Research Strategy and Details of the Methodology.

2.1 Aims and Objectives of Paint Research

The aims of architectural paint research are:

- To understand the original design intention, where possible.
- To inform the development of a coherent colour palette
- To inform the ongoing conservation and maintenance of the site

2.2 History & Description

The building was constructed in 1779 for James Viner[5] to designs by the architect James Wyatt. The next notable event in the timeline of the building appears to be its use as a meeting place for a number of organisations or groups with an interest architecture. In British History online it is described as follows:

> At No. 9, on the north side, between George Street and Regent Street, is a house formerly the town residence of the Earl of Macclesfield, but now entirely devoted to the architectural and building interests, for it contains within its walls the offices and rooms of the Architectural Association, the Architectural Publication Society, the Architectural Union Company, the District Surveyors' Association, the Photographic Society, the Provident Institution of Builders' Foremen and Clerks of Works, the Royal Institute of British Architects, the Society of Biblical Archæology, the Society for the Encouragement of the Fine Arts, and also an entrance to the Museum of Building Appliances[6]

It was noted that the Suffragette Movement also held meetings at the address though scant information regarding this period is available online.

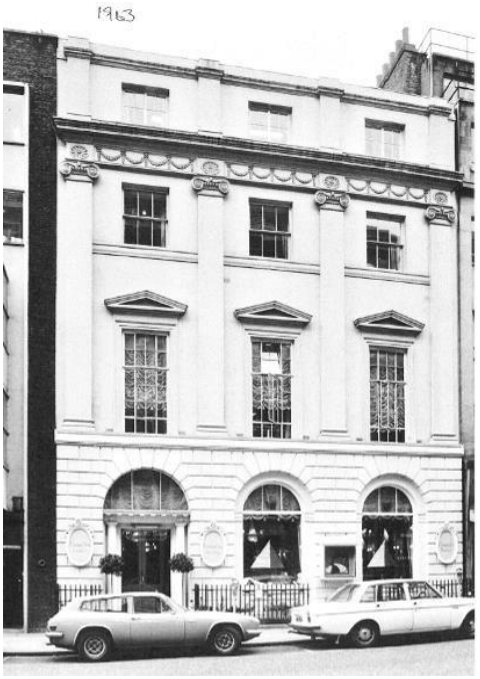
Perhaps the most notable of architectural interest groups is the Royal Institute of British Architects (RIBA) who were formed in 1835 and took up residence at 9 Conduit street in 1887, sharing the lease with the Architectural Associational. RIBA opened a competition to redesign the façade of the building, although it is noted that this was never realised. (image right from 1900)

RIBA were resident at the address until 1934 from when the building appears to remain vacant until 1961 when the fashion designed Christian Dior opened his first atelier in London. Dior undertook interior remodelling in the 1970's by designer Max Clendinning which is noted in the 1973 Design Journal who outline the extensive use of grey to the interior rooms.

It also noted from the supplied images that the iron railings to the front the building were changed sometime between 1936 and 1960s this may have related to the requisitioning of iron for munitions during the Second World War.

[5] No reference or further details have been found for the patron

[6] Taken from https://www.british-history.ac.uk/old-new-london/vol4/pp314-326 accessed 29th November 2019



A record of when the House of Dior vacated the building has not been found although a number of images have been supplied by the architect from the 1960s which show alterations to the windows to the Conduit Street façade (right) when Dior were still in residence.

The current lease holder, the restaurateur Mourad Mazouz took over the lease in 2002 opening the three Michelin Star Sketch restaurant. Sketch is the current occupier of the building.

Timeline from supplied research and images

Date	Event
1779	Construction of building to designs by James Wyatt for James Viner
1859	Various Architectural Associations took up residence in building[7]
1869	Suffragettes based in building
1887 - 1934	RIBA and Architectural Association shared lease
1958	Building was added to Listed Buildings register
1961	Christian Dior took over lease
1970's	Interior modified by Dior
2002	Mourad Mazouz opened Sketch restaurant – limited exterior redecoration completed[8]
2019	Renovation of building by current occupants

2.3 Collection of Paint Samples

Samples were taken using mechanical means (using a scalpel or small wood chisel), given individual reference codes and the sample sites recorded photographically and diagrammatically.

2.4 Microscopic Assessment of Samples

The samples were mounted in clear casting resin and polished to provide a cross section through the paint layers. Assessment at 60x or 100x magnification in incidental light allowed the layer structure to be assessed. In addition, fluorescence microscopy was employed to identify the basic stratigraphy of paint schemes (for example, differentiation between degraded paint films) and to establish basic composition of paint films.[9]

[7] Details from Design Journal 1973, source not verified

[8] Noted from conversation with facilities manager during site visit

[9] Microscope used was a Leitz Laborlux 12ME, with brightfield condenser and UV light source. Visible light was produced by Photonic PL2000 light source and gooseneck attachments (3200k). UV light H2 cube, Excitation wavelength range: 390-490nm, Splitting mirror :510nm, Absorption wavelength: 515nm

Assessment of samples in incidental light and UV fluorescence allows each scheme to be identified though dirt films, 'oiling out' layers, fading of upper surfaces of films and variations in fluorescence properties.

2.5 Micro-chemical Analysis of Paint Films

Further investigation of key layers was achieved by stain tests and simple chemical techniques.[10] This was undertaken in order to understand the basic composition of the layers.

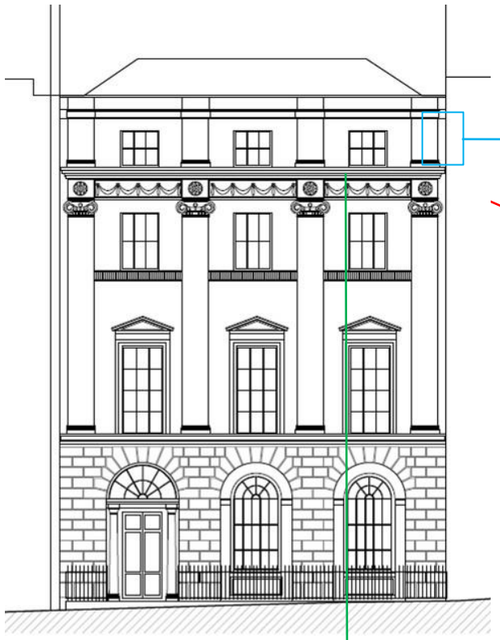
[10] Plesters, Joyce. Cross-sections and chemical analysis of paint samples *Studies in Conservation,* (Volume 02, pp 110-157, 1956)

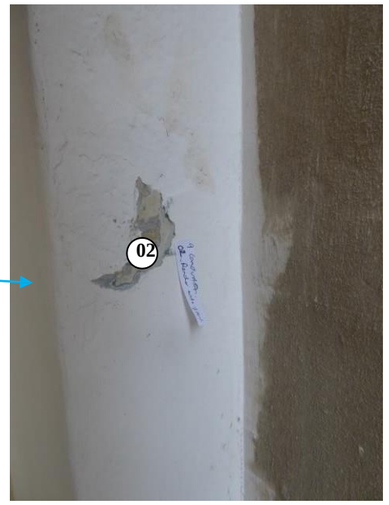
3. Sample Locations

A site visit was made on 14th November 2019 to record and collect paint samples from the façade accessed via the existing scaffolding. Samples were taken from various elements to the first, second and third floor from the scaffolding with further limited number of samples taken from the ground floor accessed from the pavement.

It should be noted that samples from all levels above the first level of scaffolding (approximately half way up the ground floor level) were subject to choosing areas that were not or only partially affected by the paint stripping. In most instances all samples are likely to have had the upper paint layers removed.

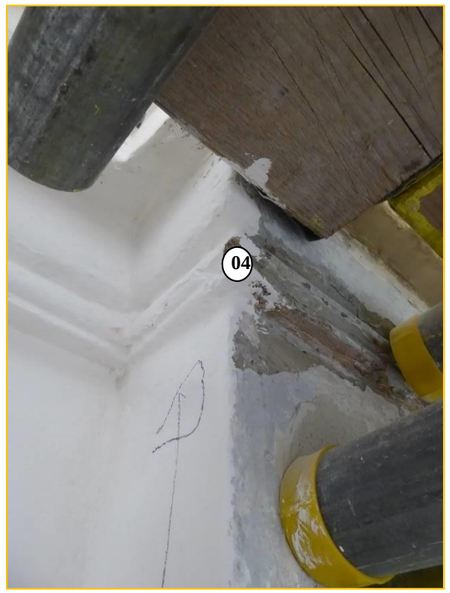
3.1 Conduit Street Façade – upper floor:



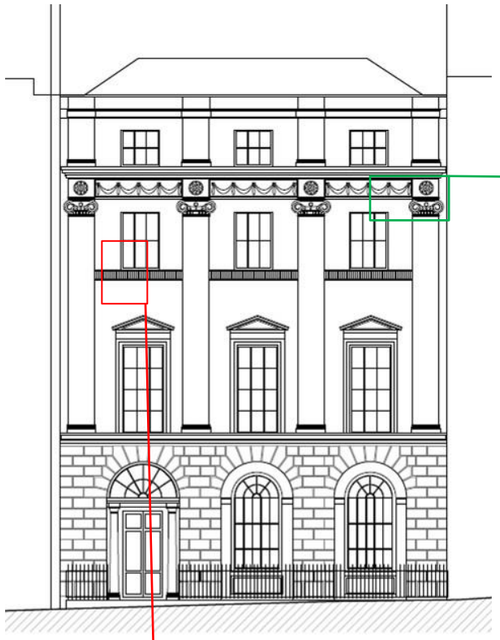


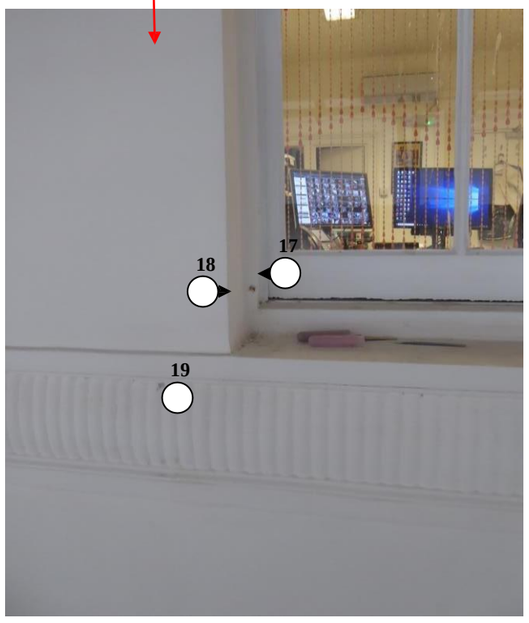
Sample locations: upper floor

01 – Window, surround, by upper hinge
02 – Column, side, render to elevation
03 – Cornice, sill to cornice to second floor
04 – Cornice, lower moulding



3.2 Conduit Street façade – second floor

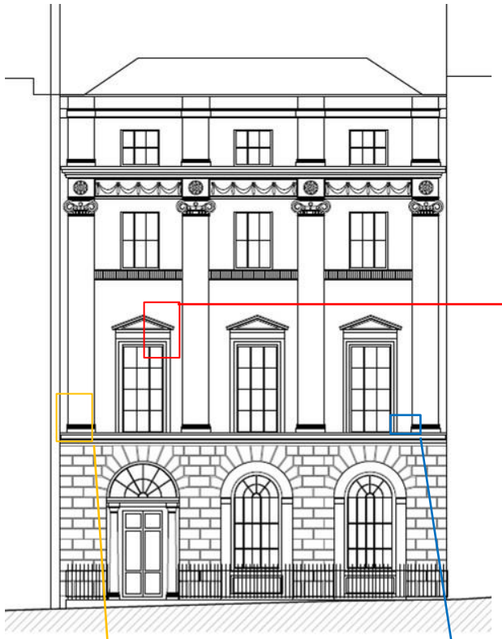


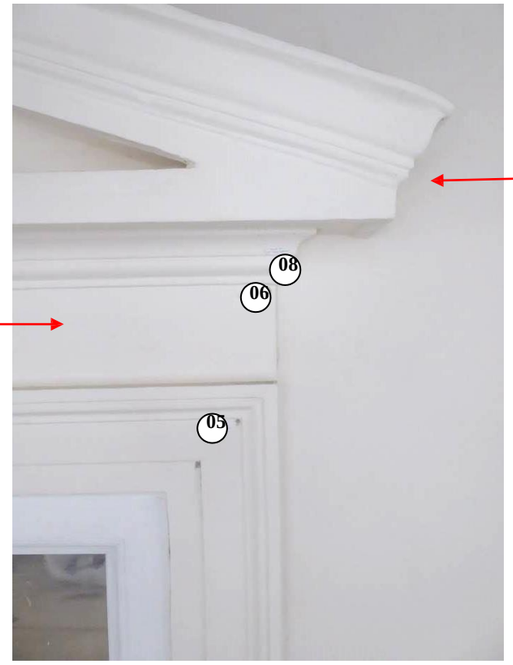


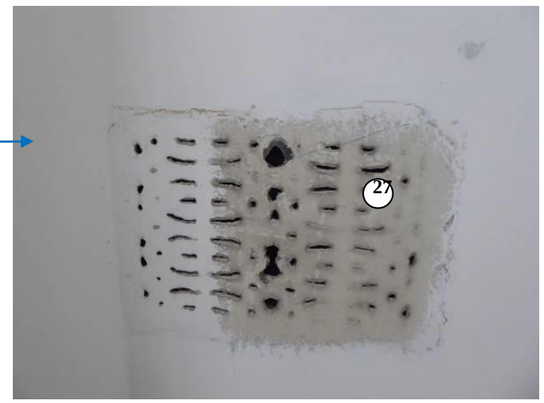
Sample locations – second floor:

17 – 2nd floor, window surround
18 – 2nd floor, window reveal, vertical flat
19 – 2nd floor, fluted band beneath window
20 – 2nd floor, lions head to Ionic capital
21 – 2nd floor, Ionic capital, curved moulding
22 – 2nd floor, egg and dart to Ionic capital
23 – 2nd floor, Water leaf to Ionic capital
24 – 2nd floor, frieze, edge of leaf to swag

3.3 Conduit Street façade – principle floor:



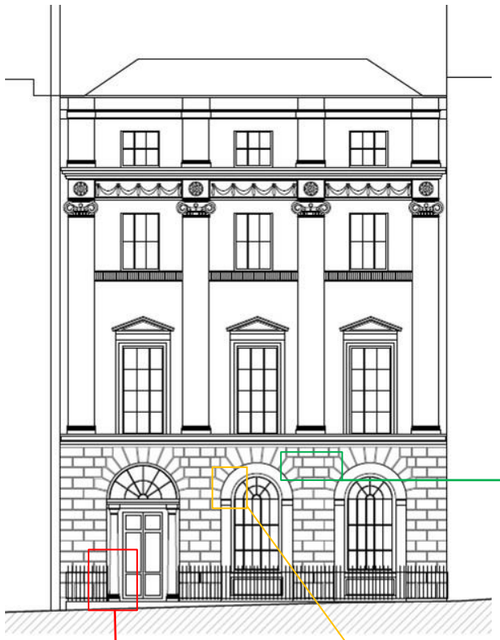




Sample locations - principle floor:

05 – 1st floor, inner vertical flat to window surround (masonry)
06 – 1st floor window, frieze above window
07 – 1st floor window, side of window pediment (base)
08 – 1st floor window, cornice below pediment
09 – 1st floor, render to side of window
10 – 1st floor, side of junction moulding between ground and first floor
11 – 1st floor, column, plinth
12 – 1st floor, column, ovolo moulding to base
13 – 1st floor, base of column (face)
27 – First floor, metal grille / vent

3.4 Conduit Street façade – ground floor

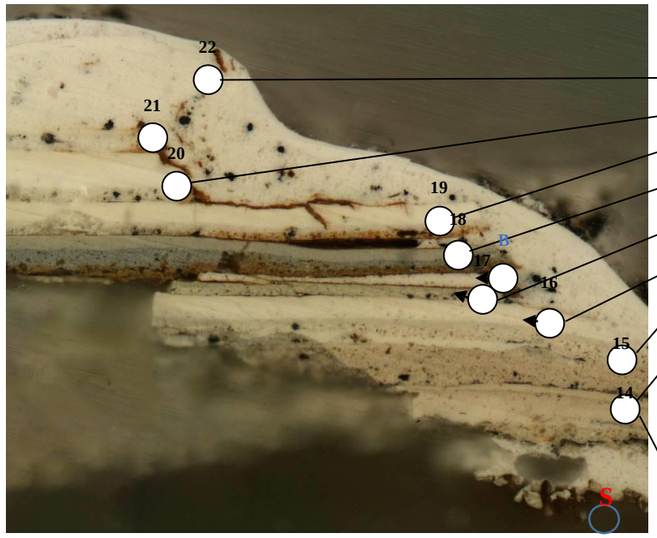


Sample locations – ground floor:

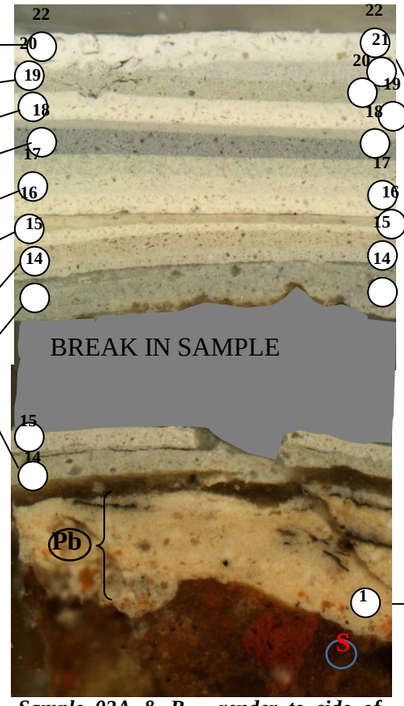
14 – Ground floor, Ashlar block, edge of
15 – Ground floor, Ashlar Block, side. recess
16 – Ground floor, masonry surround to Venetian Window (vertical flat)
25 – ground floor, entrance, LHS front door, side of rendered corner
26 – ground floor, door surround (timber frame)
28 – Ground floor, entrance column (not full thickness)

4. Results of paint research

4.1 Upper floor photomicrographs –:



***Sample 01 – Window surround, timber substrate**: fragment of timber substrate just visible followed by an off-white colour scheme followed by an early off-white colour lead based oil paint (sequencing unclear). Scheme 14 has been applied in a cream colour followed by a light buff colour scheme (15) followed by a further cream colour (16). Scheme 17 is a light grey colour followed by a bleed through (B) of paint from scheme 22 getting into a fracture between earlier paint films. Scheme 18 is a darker grey colour followed by a return to a cream colour (19), remaining schemes have been applied in off- white colour paint (20 – 22). Disruption in paint films noted with dark brown films seen to later schemes, evidence of possible preparatory coat.*



***Sample 02A & B – render to side of column, masonry substrate:** masonry substrate visible (S) followed by initial stone colour scheme (01) followed by a further stone colour (scheme number not identified) this is followed by a light grey colour (14) followed by a buff colour scheme (15) and a cream colour scheme (16). Scheme 17 has been applied in a light grey colour followed by a dark grey colour scheme (18). This is followed by an off-white colour (19) followed by two further grey colour schemes (20 & 21) followed by an off-white colour scheme (22). Earliest scheme applied in lead-based oil paint.*

***Sample 04 – cornice, lower moulding, masonry substrate:** substrate just visible (S) followed by 11 schemes of stone colour lead based oil paint. Schemes are disrupted and distorted in some areas due to softening by paint stripped and location of sample. Stone colour schemes followed by a cream colour scheme (22)*

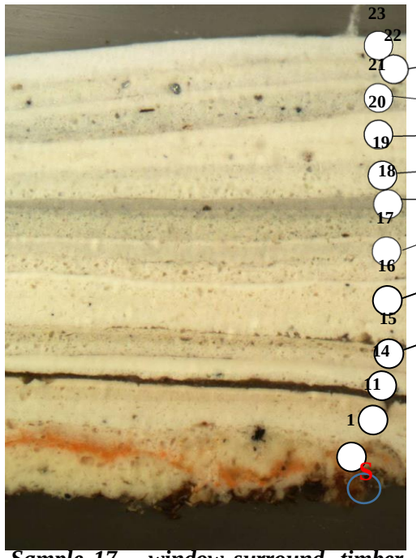
Comments:

- *Sample 01 was taken from the area below the hinge to an upper floor window where a good amount of paint was visible. The sample contains a small amount of lead-based oil paints but also dark brown films within the later schemes. These are not varnish films as there is no reaction to ultra-violet (UV) light nor is there a reaction in UV light to any pigments contained in these films.*
- *Sample 02 has split so schemes 14 and 15 appear twice. Earliest scheme (01) contains red lead pigments but the scheme that follows it is too disrupted to clearly identify sequence number (could be scheme two identified by the dark film below and above the paint film).*
- *Sample 04 retains a significant number of early lead-based oil paint schemes but has lost the later schemes through the paint stripping prior to the sampling being undertaken.*
- *Sample 03 contained only the later paint films seen to the upper section of sample 02. Further sampling from this element was not possible due to the restricted access by scaffolding poles.*

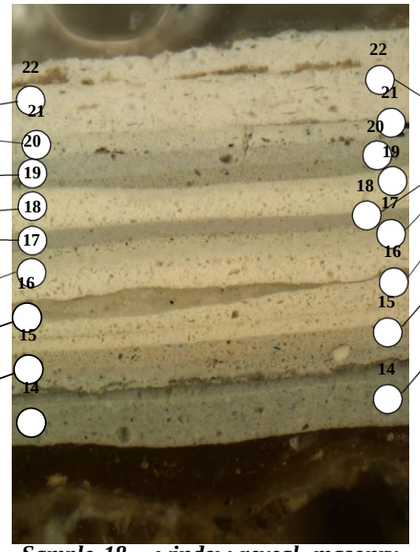
Key:

1	Number of scheme(s)
Pb	Identifies lead-based oil paints
	Ties decorative schemes
S	Substrate

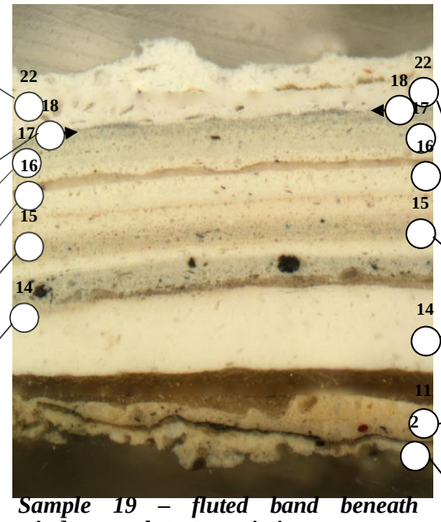
4.2 Second floor photomicrographs



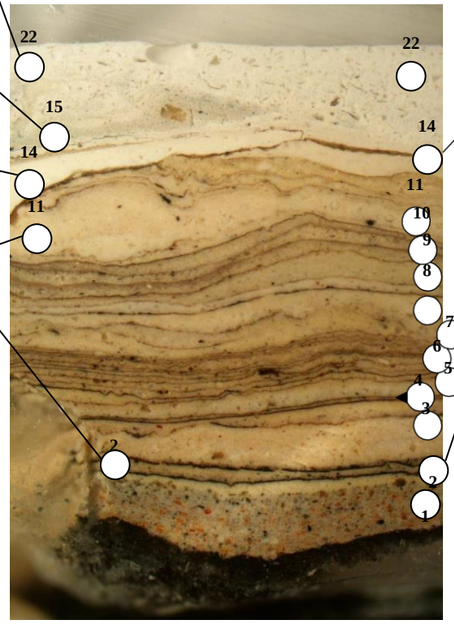
Sample 17 – window surround, timber substrate: *timber substrate just visible (S) followed by first scheme with distinct orange section (red lead pigment) (1), this is followed by scheme 11 applied in an off-white/buff colour. Schemes then jump to scheme 14 also applied in off-white, followed by three further schemes of off-white/buff colour (15 – 17), scheme 18 changes to a grey colour followed by a light grey colour at scheme 19. Scheme 20 returns to an off-white colour followed by a further grey colour scheme (21) followed by two further off-white colour schemes (22 & 23).*



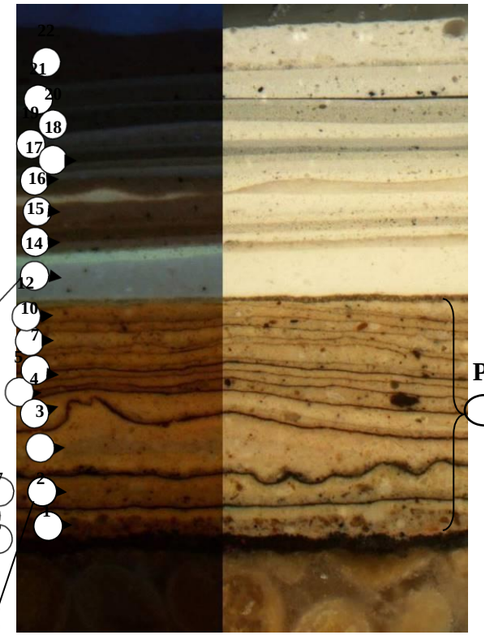
Sample 18 – window reveal, masonry substrate*: Masonry substrate just visible (S) with a preparatory coat applied beneath a grey colour scheme (14) this is followed by a light grey/buff colour (15) followed by an off-white colour (16). Scheme 17 is a pale grey colour followed by a further grey colour (18). Scheme 19 returns to an off-white colour followed by a further grey colour scheme (20) and a pale grey scheme (21). Scheme 22 has been applied in an off-white colour – further schemes disrupted by paint stripper. No lead-based oil paint seen.*



Sample 19 – fluted band beneath window, substrate missing: *masonry substrate not seen. Fragment of scheme earliest scheme visible (02) followed by scheme 11. This is followed by a preparatory coating applied beneath scheme 14 applied in a cream colour zinc-based oil paint. Scheme 15 has been applied in a buff/grey colour followed by an off-white colour (16) this is followed by a further light grey colour (17) and a further darker grey colour (18). The next scheme (22) has been applied in a cream colour. First two schemes have been applied in lead-based oil paints.*



Sample 20 – lion head moulding to capital, substrate not identified*: initial dark grey colour base followed by a stone colour paint film (01) applied over a densely pigmented base coat (black and red lead pigments). This is followed by 16 successive stone colour schemes applied in lead-based oil paints. Scheme 14 changes to a cream colour (zinc-based oil paint). Paint films have then been disrupted with scheme 15 (buff/grey colour) just visible followed by scheme 22 applied in a cream colour.*



Sample 22 – egg and dart to capital, masonry substrate: *stone substrate with visible dirt film followed by a stone colour paint film (01) over a densely pigmented base coat (black and red lead pigments). This is followed by 11 further stone colour schemes applied in lead-based oil paints. Scheme 14 is a cream colour (zinc-based oil paint) followed by the grey/buff colour scheme 15. Scheme 16 has been applied in a cream colour followed by the first grey colour scheme (17) repeated in a darker grey (18) followed by an off-white colour scheme (19) followed two further grey colour scheme (20 & 21) with an off-white colour at scheme 22.*

Comments:

- *There are an inconsistent number of schemes seen across the samples indicating either previous failure or removal of paint films prior to redecoration.*
- *Where paint films remain, there is a consistent use of colour seen across comparable elements of samples with no significant use of colour or picking out of architectural elements with colour noted.*
- *Areas of decoration such as the mouldings to the capital retain a significant number of schemes including schemes applied lead-based oil paint.*
- *Samples to the window reveal contain only 20th century paint films although the sample from the timber window frame retains some earlier schemes indicating that, whilst alterations to the windows are noted from archive images, that the frames were not consistently replaced.*
- *The extant (latest) decorative scheme to the samples is unlikely to be the last scheme to the building due to paint removal from the façade prior to the application of the Keim paint.*

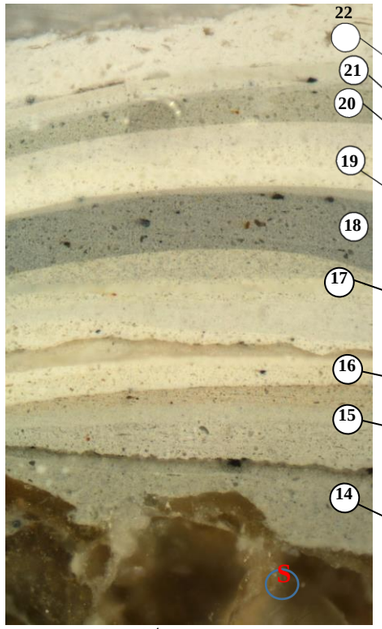
Key:

1	Number of scheme(s)
Pb	Identifies lead-based oil paints
⌒	Ties decorative schemes
S	Substrate

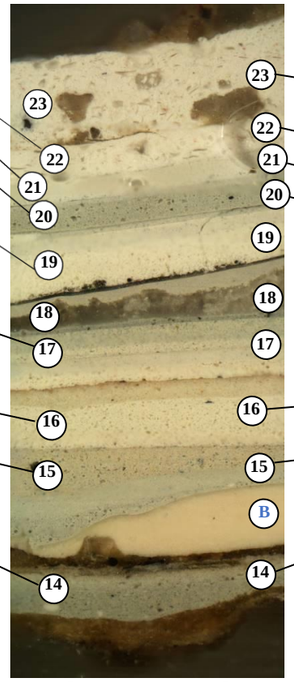
4.3 Principle floor photomicrographs

Key:

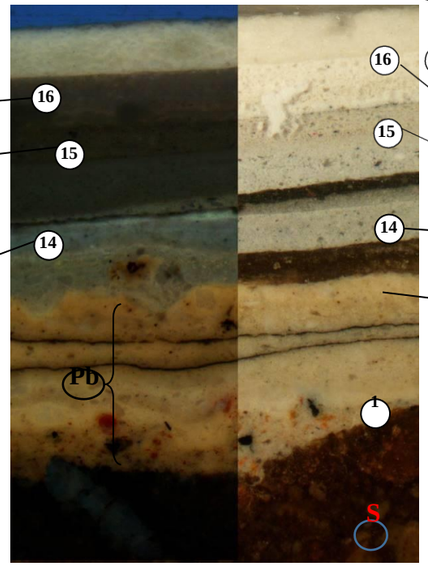
1	Number of scheme(s)
Pb	Identifies lead-based oil paints
⌒	Ties decorative schemes
S	Substrate



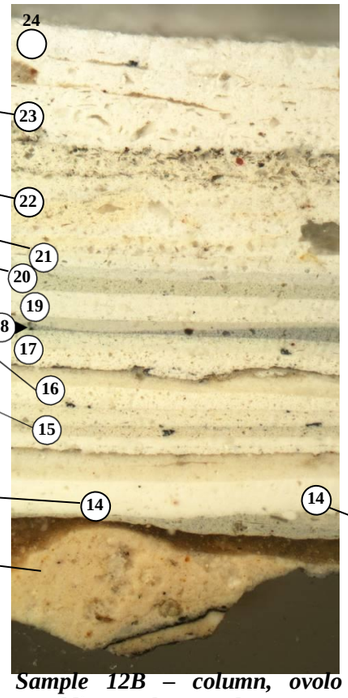
Sample 06 – 1st floor window, frieze above window *(also representative of samples 05, 08, 27), masonry substrate: first scheme seen has been applied in a grey colour zinc-based oil paint (14) followed by a further buff/grey colour scheme (15). Colour then changes to an off-white scheme (16) followed by a further light grey colour (17). Scheme 18 has been applied in a dark grey colour, followed by a return to a cream colour (19). Scheme 20 has been applied in a grey colour followed by two further cream colour schemes (21 & 22). No lead-based oil paints were seen to the sample.*



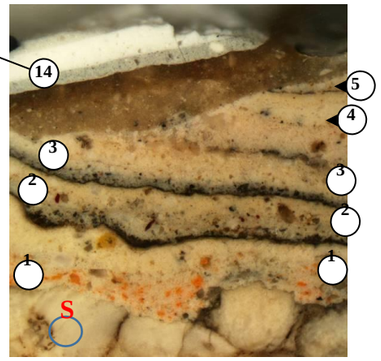
Sample 09 – render to façade*, substrate missing: first scheme seen has been applied in a grey colour (14) followed by the buff/grey colour scheme (15) followed by a cream colour scheme (16). Scheme 17has been applied in a light grey colour followed by a further grey scheme (18) and a light grey colour at scheme 19. Scheme 20 has been applied in a darker grey colour before three schemes of a cream colour (21 – 23). No lead-based oil paints were seen in the sample.*



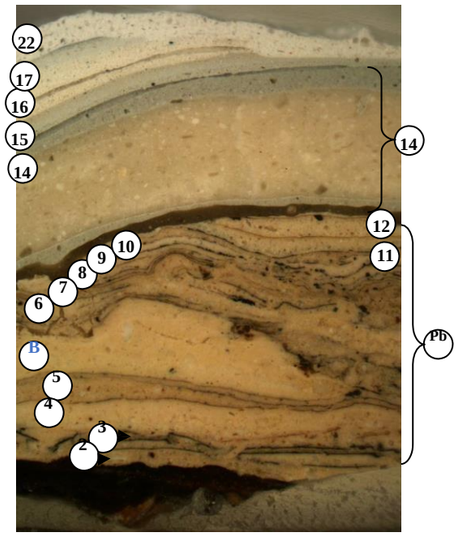
Sample 07A – (combined UV image) – side of window pediment, *masonry substrate: fragment of first scheme seen (01) applied in a stone colour lead-based oil paint followed by earlier stone colour but unable to distinguish scheme due to interruption in paint films (possibly scheme 3). Evidence of a priming layer then seen beneath scheme 14 (zinc-based oil paint) applied in a light grey colour, followed by the buff/grey colour (15) and off-white colour (16).*



Sample 12B – column, ovolo moulding to base, substrate not shown, (also representative of sample 11): *shown to the right - earliest paint films are fragment of stone colour lead based oil paint with primer applied over prior to the application of scheme 14 with a light grey undercoat and cream colour top coat. Scheme 15 is the buff/grey colour followed by further cream colour (16) then further light grey colour (17). Fragment of dark grey colour scheme (18) followed by cream colour (19) and further grey scheme (20 & 21). Schemes 22 – 23 have been applied in off-white colour.*



Sample 12A – column*, masonry substrate: granular substrate just seen (S) followed by first scheme (01) applied in lead-based oil paint with notable red lead pigments, heavy dirt film over followed by further stone colour schemes (02 – 05). All applied in lead-based oil paints. These are followed by a priming coat prior to the application of scheme 14 (zinc-based oil paint) with a grey undercoat and an off-white top coat. No further scheme seen in sample.*

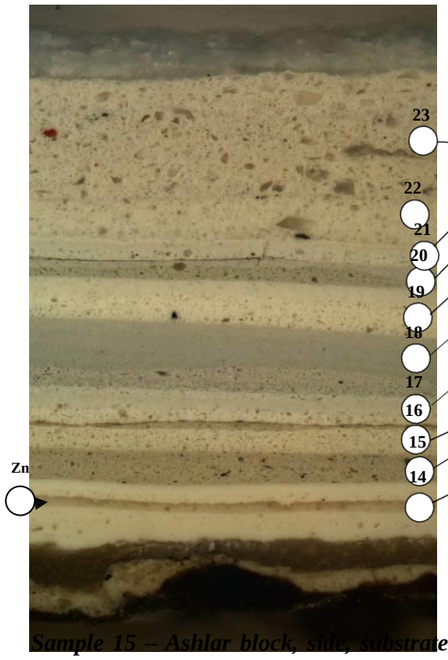


Sample 13 – base of column (vertical flat) substrate missing*: initial dark preparatory layer beneath the earliest stone colour lead-based oil scheme (02). Scheme 01 not seen. Up to 11 further schemes of stone colour lead oil paints seen but films are disrupted so exact structure unclear. Priming layer seen beneath scheme 14, applied in a grey colour zinc-based oil paint followed by a further grey scheme (15) and cream colour (16) and a further grey colour scheme (17). Extant is scheme 22, applied in a cream colour.*

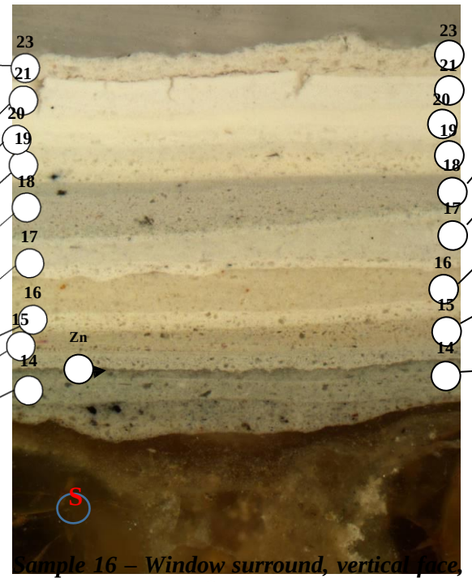
Comments:

- *Some evidence of a bleed through of paint films seen in sample 09, represented by a B in the analysis above, this is as a result of a fracture in the earlier paint films and a later application of paint bleeding (seeping) into the void created by the fracture.*
- *Comparable use of colour seen across the samples in the later schemes, although some samples are missing the earliest stone colour lead-based oil paints seen to samples from the render as opposed to the decorative elements such as the column.*
- *Evidence of disruption to later schemes seen most likely due to the use of paint stripper but this cannot be confirmed from the samples taken.*

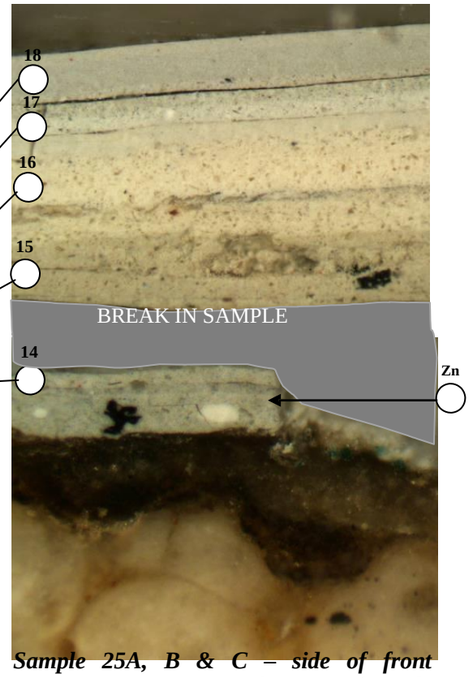
4.4 Ground floor photomicrographs



Sample 15 – Ashlar block, side, substrate missing: *initial cream scheme applied in zinc-based oil paint (14) followed by a grey colour scheme (15) followed by a further cream colour scheme (16). Scheme 17 has been applied in a light grey colour followed by a further dark grey (18) and an off-white colour (19), scheme 20 returns to a grey colour, repeated in a light grey (21). Schemes 22 and 23 have been applied in cream and buff colours. No lead-based oil paints found in sample.*



Sample 16 – Window surround, vertical face, masonry substrate*: first scheme seen is the grey colour zinc-based oil paint (14) followed by the grey/buff colour scheme (15) this is followed by a cream colour scheme (16) followed by a light grey colour scheme (17). Scheme 18 is a darker grey colour followed by three schemes of cream/off-white colour (19 – 21) which are followed by a buff colour (23). No lead-based oil paints were seen in sample.*



Sample 25A, B & C – side of front entrance, masonry substrate: (sample split). *Initial scheme seen is the grey colour zinc-based oil paint (14) followed by the grey/buff colour (15), this is followed by a cream colour scheme (16) prior to the application of a further light grey colour scheme (17) followed by a further grey colour scheme (18). Later paint films missing from sample. No lead-based oil paints seen in sample.*

Comments:

- *No early lead-based oil paints seen in the samples taken from the ground floor. This implies that earlier failure of paint films or removal of paint films has been undertaken prior to redecoration. Scheme 16 in sample 16 tested positive for lead.*
- *Earliest paint scheme seen to building corresponds to scheme 14, this has been applied in both cream and grey colours indicating some use of colour to pick out features from the Ashlar block (sample 15) which appears to be a cream colour with window arches and entrance using a grey colour. This is the only notable variation in the use of colour seen to the samples taken from the ground floor facade.*
- *An incomplete number of schemes were seen to the samples taken from the entrance and those from the Ashlar block. This may be a result of weathering, failure of paint films or removal of paint films as part of the preparation of surfaces prior to redecoration.*

Key:

1	Number of scheme(s)
~~Pb~~	Identifies lead-based oil paints
	Ties decorative schemes
S	Substrate

5. Discussion of Results

There appears to be three distinct phases of applied decoration seen to the exterior of the building. The earliest decorative schemes were applied in lead-based oil paints followed by limited use of zinc-based oil paints followed by synthetic resin-based paints. The early lead-based schemes have yellowed with age and lack of exposure to UV light but appear to have all be applied in a similar cream or light stone colour. The earliest decorative scheme (01) seen to the samples contains distinctive red lead pigments in the undercoat and is seen across multiple samples taken from various elevations of the building.

Scrutiny of the samples indicates that the building may have been left unpainted following construction due to a significant dirt film seen beneath the first decorative scheme to some samples. Details regarding identification of the building material was not included in the paint analysis brief and it is understood that a limited analysis of core samples from the façade has identified the use of Roman Cement[11]. A number of the samples taken across the building contain a mixture of substrates including timber and render however, samples taken from the decorative elements including the Ionic capital egg and dart moulding (second floor) appear to have a stone substrate[12]. Paint samples taken from these areas contain a significant dirt film beneath the earliest decorative scheme which indicates that the building may not have been painted in its earliest appearance.

The impact to façade from the pollution is likely to have resulted in the building being painted a cream colour. This was repeated a number of times in the lead-based oil paints. There is some indication within some of the lead-oil schemes of the use of a warm orange colour wash (similar to a copperas effect). Although the paint films have discoloured with age this can just be detected in the swag moulding decoration to the frieze (see images below).

Figure 2: two images from the frieze to the second floor

[11] Report 66451/C Analysis of Mortar Sample; Sandberg; 19th November 2019

[12] Possibly a politic limestone such as Portland or Bath stone – needs further analysis to confirm material.

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Whilst is it not possible to exactly date these paint films some evidence of the contrasting appearance of the frieze to the rest of the façade can be seen in the image taken in 1900 when RIBA occupied the building[13]. This colour wash was also detected in the sample taken from the cornice above the frieze but not detected to any further taken from other areas of the building where the lead oil schemes were found.

Following the use of lead-based oil paint there is a change in the paint media to the use of zinc-based oil paints (identified as scheme 14 in the cross sections). This also sees the first introduction of a grey colour in the paint films and it is possible that this ties in with the taking over the lease by the Dior fashion house[14]. Whilst this may need to be further substantiated by archival research the notable change in use of the building and change in paint media would seem to link.

Following the brief use of zinc-based oil paints the paint media then changes to synthetic resin-based paints also applied in cream and grey colours of various shades depending on scheme number. The change in paint media would also correlate to the 20th century period of decoration. In most instances the building appears to have been treated coevally with either a soft grey or cream colour scheme although the first grey schemes see some use of cream and grey in the same scheme. There is evidence that the façade (render and window surrounds) were painted a grey colour with the more decorative elements paint a cream colour. This would have been a subtle change in the appearance and used to highlight the classical features of the frieze. The columns at this time were not picked out and were treated in the same manner as the render.

At the point of paint sampling some paint films had already been removed as part of the preparatory works for the redecoration of the façade. It is not possible therefore to accurately record how many decorative schemes the building would have had. It is

[13] Image supplied to the paint researcher by the architect.
[14] Reference to the use of grey by the interior designer Max Clendinning in 1973 noted in limited online searches.

also not possible to ascertain if any earlier removal of paint schemes has been undertaken although the lack of paint films seen to a number of samples would indicate this is the case or it may be that only the lead-based oil paints were removed. It may also be feasible that there has been some replacement of the render which would account for the loss of earliest decorative scheme with only the zinc-based oil paint films seen as the earliest schemes to some samples. This may only be confirmed by archival research that is outside the scope of this analysis.

It is possible to give a rough estimate from the number of schemes seen (up to 24) and the age of the building (240 years) that it appears that prior to this programme of redecoration, that the building is likely to have been redecorated every 8-10 years indicating it was fairly well maintained[15].

It is evident from the images supplied by the architect that there have been alterations to the windows and front door of the building. The changes to the windows would appear to have taken place between 1935 and 1963 and in the samples analysed no early lead-based oil paint were seen corresponding to the changes in synthetic resin- based paints seen in the 20th century.

[15] It should be noted that different paint media will age at different rates for example, as a general rule lead-based oil paints will require redecoration every 8-10 years.

6. Recommendations

6.1 Consideration of an Appropriate Redecoration Strategy

The purpose of this research was to record details of the decorative schemes to the Conduit façade as part of an application for redecoration under Listed Building Consent. During the course of this limited research, information regarding surviving schemes has been gathered, but this cannot be considered a comprehensive research due to the small number of samples taken and the removal of paint films prior to sampling.

Removal of historic paint films should be avoided in order to preserve the paint archaeology. However, if paint films are failing or choking detail and precluding function, then removal of the paint might be considered providing the paint archaeology is fully recorded and listed building consent has been granted.

Partial removal of paint films has already been undertaken evidence of incomplete removal of proprietary paint stripper is suspected (not tested) due to changes in colour noted to two areas to the upper storey. The new Keim Granital paint appears to have a pink bloom and this may be as a result of a reaction with stripper residues not being neutralised appropriately prior to redecoration.

Where paint stripper residues have not already been properly neutralised, the new paint should be removed and the area treated appropriately prior to the reapplication of the Keim Granital paint.

6.2 Paint removal

Several schemes were found to contain lead which is toxic. Where paint removal is to be undertaken, methods should ensure safe working practice. Therefore, dry removal should be avoided to prevent the creation of air-borne, lead-containing dust, unless suitable extraction with a HEPA filter can be in place. The use of a heat gun should also not be used without the operative wearing suitable PPE.

Disposal of any paint residues should follow appropriate licensed waste disposal protocols.

6.3 Colour Tests Prior to Redecoration

Normally it is recommended that colour trials are undertaken *in situ* prior to redecoration to establish if the colour is balanced against patination of the surrounding architectural features. However, in this instance it would appear that the client is happy with the off-white colour of the paint selected so colour trials would only be applicable if any alterations or picking out of features is required as part of LBC requirements.

6.4 Further Analysis

Whilst every effort was made to take samples from a wide variety of locations across multiple levels of the building there was limited access to the front entrance and the side of the building. Should a more extensive programme of paint removal be

proposed then a more comprehensive recording of the paint films should be undertaken prior to the works. This should include the careful exposure of paint films to record decorative finishes (such as NCS colour references) and further explore the contrasting use of colour wash to the frieze to the second floor.

It was not possible to take samples from the surround to the main entrance nor from the columns to either side of the door due to member of the public having access to the building during business hours. Those samples that have been taken are not comprehensive and have been taken from areas susceptible to impact and abrasion. Any programme of additional sampling should include a full appraisal of the door surround and the column to ascertain the nature of paint archaeology.