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Record of Limited Architectural Paint Research to the interior wall of Pushkin House, Bloomsbury Square



AUGUST 2021

Bloomsbury Square London Borough of Camden

Summary

Project	To analyse samples of applied decorative schemes to the Library and Front Office of Pushkin House in order to identify the date of the partition installation.
Nature of project	Investigations to inform redecoration under Grade II* Listed Building Regulations.
List Entry Number:	1244506
Listing:	Grade II*
Date first listed: Date of last Revision:	24 th October 1951 11 th January 1999
National Grid Reference:	TQ 30321 81591
Name of Client	Pushkin House 5a Bloomsbury Square London WC1A 2TA
Name and address of Conservator	Hirst Conservation Limited Laughton, Sleaford Lincolnshire NG34 0HE
Date of works	August 2021
Related reports	n/a
Author(s) and date of investigative report	Charlotte Owen and Catherine Atkinson, Hirst Conservation August 2021
Methods employed	Photographic recording of sample locations, cross sectional analysis, documentation.

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Executive Summary

The scope of the architectural paint research was confined to the interior of Pushkin House only and included both the Library and Front Office. The aim of the research was to determine whether the partition separating the two rooms was original to the construction of the building and if it was not, to identify the period of installation.

Research has concluded the partition wall between the Library and Front Office to not be coeval with the 1744 building but instead installed later, most likely between the mid-19th to early 20th Century based on the number and nature of the paint films seen. This indicates that the Library and Front Office were once one larger room and thus painted as one. Interestingly, even post installation of the partition, the two spaces were generally painted in the same decorative schemes.

It is therefore the findings of this report that, based on the number of schemes and their composition, the partition is likely to have been installed in the latter half of the 19th to early part of the twentieth century. This coincides with the documented history of the property which suggests there were no alterations to the building layout until the twentieth century. A comparison of two samples, one from the structure north elevation to the library and one from the partition wall have been shown below. Note the number of paint films in the image to the left below the dark scheme compared to a lesser number of schemes below the dark scheme seen in the sample image to the right.

The original scheme consisted of a lead-based pale cream colour topcoat applied over a white, lead-based primer. Fragmentary evidence of a brown colour oil film was found upon the window architraves, suggesting that timber fabric was decorated in this brown.



Sample 12 from the library, north elevation

Two samples have been chosen to demonstrate the correlation between the paint schemes upon the north, original wall in comparison to the south-east, partition wall which was installed much later than the original building.

Scheme 16, labelled above, shows the first layer to the later partition wall and where this coincides with Scheme 16 in sample 12 of the original north wall.

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1. Scope of Research

The following document records the sampling and analysis of paint samples taken from the ground floor north reception room to Pushkin House, Bloomsbury Square, Camden. The samples were taken on 6th August 2021 by architectural paint researchers from Hirst Conservation.

The aim of this report is to understand the nature of the schemes of decoration to the partition wall in order to ascertain when it may have been inserted. The findings of the report will inform listed building consent application for alterations to the space.

The investigation was undertaken at the request of Patrick Duerden of Purcell Associates, on behalf of the client.

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 Sampling

The aims of architectural paint research are:

- To understand the original design intention, where possible.
- To inform the proposals for alteration of the space.

2.2 Brief History & Description

Limited investigation of the origins of Bloomsbury Square note that it was first laid out in the second half of the 17th C for the Fourth Earl of Southampton, Thomas Wriosthesley. Through marital connections the area passed to the Duke of Bedford in the later part of the 17th Century and thus became part of the expanding Bedford Estate.

The buildings to the west side of the square that form 5, 5a and 6 were constructed as two houses in 1744 by Henry Flitcroft. Historic England listing status notes that there are some original panelled rooms to the interior with stone staircase and restored balustrade. No further details regarding the history or interior of the building are known.

Timeline of recorded events

Date		Event
1744		5a Bloomsbury Square (now referred to as Pushkin
		House) built as the east half of a larger single
		townhouse.
Early	20^{th}	It is stated that the interior layout remained largely
Century		unchanged until the early 20 th century.

1939-1945	Building survived the war with no damage.									
1951	5a Bloomsbury Square was listed at Grade II*									
1950-2000	Remained as offices whilst retaining most original									
	interior fabric.									
1993-4	Alterations to the basement which included the									
	installation of a staircase to ground floor.									
1996	Building separated into 5 and 5a (now Pushkin									
	House)									
2005	Building occupied by Pushkin House Trust.									
	Removal of non-original partition between east									
	rooms at first floor level. (Donald Insall									
	Associates, 2021)									

Table 1: Summary of Historic Development

2.3 Archive

No archive research has been commissioned as part of this project. Any information pertaining to the building has been taken from a draft copy of Pre-Application Historic Building Report, Pushkin house, 5a Bloomsbury Square WC1; Donald Insall Associates, June 2021, supplied by the client.

2.4 Collection of Paint Samples

Samples were taken using mechanical means with a scalpel or small hand tools, given individual reference codes and the sample sites recorded photographically and diagrammatically.

Sample locations are recorded within the body of the report.

2.5 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 and to establish basic composition of paint films.1

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.

2.6 Micro-chemical Analysis of Paint Films

Further investigation of key layers was achieved by stain tests and simple chemical techniques.2 This was undertaken in order to understand the basic composition of the layers.

Assessment for lead content was undertaken on samples in the laboratory. Analysis was limited to microchemical 'Spot' tests using sodium sulphide (Na₂S).

¹ Microscope used was a Nikon Eclipse LV150NL stand with LV-UEP12 Universal EpiFL-Illuminator 2. Visible & UV light was produced by CoolLED pE-300 Ultra pE-300-UT-D-SB-27E-30(3200k). UV-2A FL Filter cube, Excitation

wavelength range: 390-490nm, Splitting mirror :510nm, Absorption wavelength: 515nm

² Plesters, Joyce. Cross-sections and chemical analysis of paint samples <u>Studies in Conservation</u>, (Volume 02, pp 110-157, 1956)

3. Ground Floor

3.1 Overview

There are approximately 31 schemes of decoration across both the Front Office and Library. However, after the partition was installed, the Front Office was decorated more frequently in comparison with 27 schemes of decoration within the library and only 16 schemes upon the partition wall. Supporting the proposal, that the partition is not coeval to the 1744 building.

We see evidence of a blue pigmented distemper in scheme 16 indicating this postdates the 1830s when discovery of a stable blue pigment (French / artificial ultramarine) was formulated. This is the point where we see evidence of the subdivision of the space.

It is also evident, based on knowledge of decorative history, that schemes 16-19 were applied during the 19th century where decorative schemes generally became much darker in colour. Walls up to dado height were often painted in dark colours such as brown whilst the upper walls might be decorated in a wallpaper. There was also tendency for the 'picking out' of mouldings in various colours. The use of a deep red colour is not unusual for this period.

Following the use of lead-based oil paints there are a number of schemes applied in a zinc-based oil paint prior to paint media changing to a synthetic resin indicative of twentieth century. It is therefore likely that with the number of schemes seen and the changing nature of the paint media that parts of the room retain a complete paint archaeology.

3.2 Discussion of results

Scheme 01

The first scheme attributed to the original 1744 scheme was found on most elements excluding the partition wall. This scheme is identical in both the Library and Front Office showing these rooms were once treated coevally. It can be concluded from these original paint layers that the entablature, dado rail and architraves were painted in a lead-based pale cream colour topcoat over a white primer.

There is fragmentary evidence of a brown tinted oil glaze applied to the window architrave which may have also been applied to the door architraves and dado rail as seen in later schemes.

There was no corresponding paint scheme surviving to the flat wall surface. The first layer found to the wall was a wallpaper, likely applied in the early to mid-twentieth century.

Schemes 02 - 07

After 1744, a similar scheme was repeated six times. This scheme consisted of all architraves, dado rail and entablature painted in pale cream topcoat over an off-white primer. As with Scheme 01 there are no early layers surviving upon the exterior flat wall surface that correspond to these schemes, this also includes the partition wall.

These schemes were all applied in a lead-based oil paint which indicates the date of these paint schemes to pre-date the early twentieth century. Considering the number of layers found, it is likely that these schemes were applied throughout the remainder of the 18th century and possibly into the early 19th century.

Scheme 08 – 12

The fragmentary nature of aged lead-based oil paints reveals as a disruption in the paint samples taken however it is possible to generally see a repetition of the earliest seven schemes of decoration with the space showing the rooms continue to be treated coevally, indicating they were not subdivided at this time. Scheme 11, found within the both the Library and Front Office, shows the use of a stone colour to the door surround samples, this was also seen in scheme 12.

There were no layers from this period upon the partition walls and the walls of the remaining elevations also had no paint layers upon them. This scheme is identical to the previous schemes. However, in this case, there is an oil glaze surviving upon the window architraves.

Scheme 13

Scheme 13 was found to occur in both the Library and Front Office as these were originally one larger room. This scheme is interesting for its introduction of the use of colour upon the joinery in comparison to earlier schemes of cream. was no evidence of this scheme upon the wall flats. All elements including the entablature and architraves, were painted in a blue green colour paint film.

Scheme 14

Scheme 14 almost follows a similar colour trend to the earlier schemes. There was limited evidence of this scheme remaining, but it was found to survive upon the dado rail of the library and window architraves of both the Front Office and Library. There were no paint layers surviving upon the entablature or walls that could be attributed to this scheme.

Scheme 15

Within this scheme there is evidence of 'picking out' to the mouldings which was not found in previous schemes. The window architraves and dado rail were painted in a lead-based off-white colour topcoat applied over an off-white primer. The lower band of the dado rail and egg and dart moulding of the window architrave were found to have been decorated in a pale green colour. There were no surviving layers found upon the wall flat.

Schemes 16 - 19

Scheme 16 is significant as this is the scheme in which the first layers were found upon the partition wall. There is also evidence of 'picking out' to the mouldings as found in scheme 15.

Up to dado rail height, the wall was painted in one light brown colour produced using a brown oil applied over a cream primer. The architraves were painted to match. The cornice was decorated in a white distemper that was brightened with a blue pigment. Many blue pigments were found to be unstable in in the alkaline solution of a distemper until the discovery of artificial ultramarine in 1830. This would then date this scheme to after 1830's. There were no layers found to the upper wall flat but it could be suggested that this was decorated in wallpaper.

Scheme 17 was a repeat of the previous scheme. However, in this case the cornice mouldings were 'picked out' in yellow distemper and the wall below dado height was decorated in a red colour lead based oil paint. Schemes 18 and 19 were also identical except the cornice was decorated in cream lead-based paint as opposed to

distemper. The lower wall continued to be painted in a dark red colour.

Although the Front Office and Library were now separated into two rooms by the partition, for schemes 16 - 19, the rooms continued to be decorated identically.

Schemes 20 and 21

Although the Front Office and Library were now separated by the partition wall, the rooms continued to be painted in identical decorative schemes. The schemes were comprised of lead-based paint, confirming that these were applied before the mid twentieth century. In Scheme 20, the cornice was decorated in a plain distemper. The dado rail, skirting and window architraves were decorated in a deep green colour whilst the wall below dado was decorated in a deep red colour. The upper wall was decorated in wallpaper. For Scheme 21, the same decorative scheme was repeated however, this case, instead of dark green the dado and skirting were decorated in black and the wall below the dado rail was decorated in a slightly deeper red over which an oil glaze was applied.

Scheme 22 and 23

This was the first decorative scheme in which the paint was zincbased, marking the progression through the first half of the twentieth century. Both the Front Office and Library were decorated in the same scheme. The entire wall surface was painted in cream except for in Scheme 22 in which the wall below the dado, which was decorated in a red colour, similar to the previous schemes. Fragmentary evidence of a light brown oil survives which was applied to the window architraves. It may have also been applied to the door architraves.

Scheme 24 and 25

In the following two schemes, only the joinery and lower walls were redecorated whilst the upper walls were retained. The dado rail, lower wall, and architraves were redecorated in colourful zinc-based paints. Firstly, in Scheme 24, this was a pale blue followed by a pale green in Scheme 25.

Schemes 26 and 27

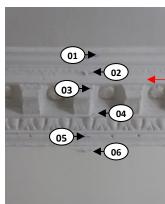
entire wall in both the Library and Front Office was decorated in white, zinc-based paint. The dado rail, skirting and architraves were 'picked-out' in blue.

Schemes 28 – 31

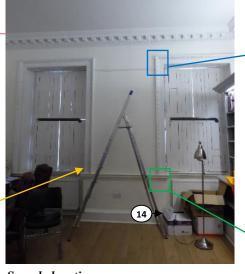
In Schemes 28 - 31, the paint used is a modern resin paint as opposed to the zinc-based paints applied in previous schemes. These were likely applied during the late twentieth and early twenty-first century. These schemes were largely identical with only minor variations. The entire wall was painted in white. In Schemes 28-30, the picture rail was painted in a pale blue and in Scheme 28, the lower wall was painted in a blue green colour. In Schemes 28 - 30, the upper walls were decorated in blue whilst the lower walls were decorated in white over a paper substrate.

3.3 Sample Locations

3.3.1 Library

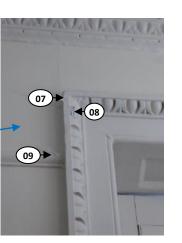


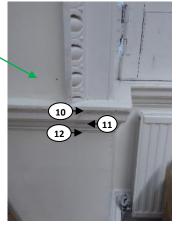


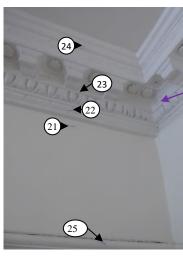


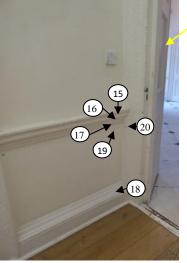
Sample locations:

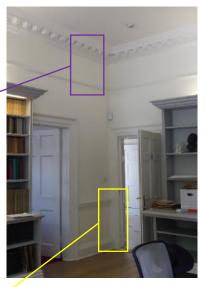
- 01 north wall, cornice, upper band
- 02 north wall, cornice
- 03 north wall, cornice
- 04 north wall, cornice 05 – north wall, cornice
- 05 north wall, cornice 06 – north wall, upper wall
- 07 north wall, window surround
- 08 north wall, window surround
- 09 north wall, window surround
- *10 North wall, dado,*
- 11 North wall, dado
- 12 North wall, dado
- 13 North wall, window, shutter recess
- 14 north wall, skirting, centre moulding



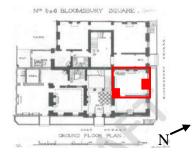








15 – south wall, east end, dado, upper
16 – south wall, east end, dado, centre
17 – south wall, east, dado, lower beading
18 – south wall, east end, skirting,
19 – south wall, east end, below dado,
20 – south wall, east end, door surround
21 – south wall, east end, wall, upper
22 – south wall, east end, cornice, lower
23 – south wall, east end, cornice, egg & dart
24 – south wall, east end, picture rail



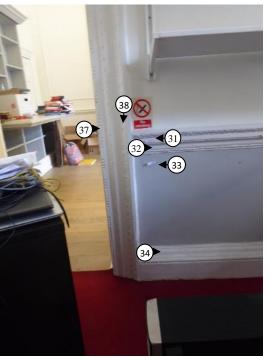
3.3.2 Front Office



Sample locations:

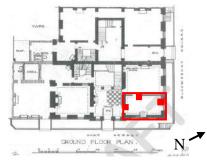
- 26 north wall, window surround, flat
- 27 north wall, window surround, egg & dart
- 28 north wall, dado, lower moulding
- 29 north wall, below dado
- 30 north wall, skirting, centre moulding
- 31 -west wall, dado, centre moulding
- 32 –west, dado, lower
- 33 –west, below dado
- 34 –west, skirting, centre
- 35 south wall, door surround, inner beading
- 36 south wall, door surround, outer enrichment
- 37 south wall, door surround, inner beading
- 38 south wall, door surround, outer enrichment

Note: High level access was not possible from the ladder provided on the day of sampling due to the number of items in the office.

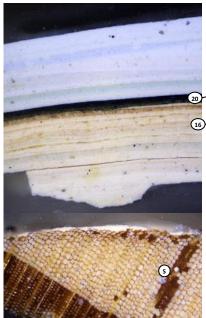


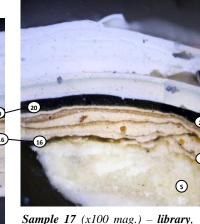


Nº 5 5 6 BLOOMSBURY SQUARE . Gen

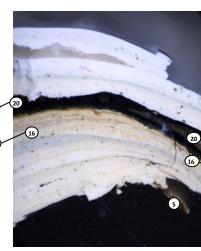


3.4 Photomicrographs

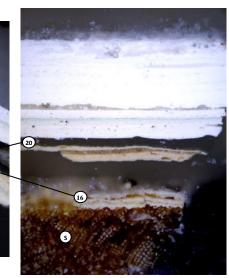




Sample 17 (x100 mag.) – *library*, south (partition) wall, dado rail, centre. Similar to samples 16 & 18.



Sample 14 (x100 mag.) – library, north wall, skirting, centre moulding



Sample 18 (x100 mag.) – *library*, south wall, skirting

Sample 12 (x100 mag.) – library, north wall, dado rail, lower band. Also representative of samples 10 and 11

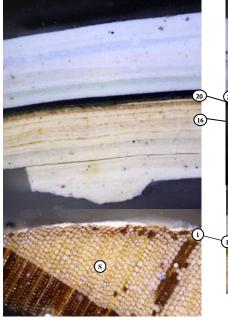
Initial observations:

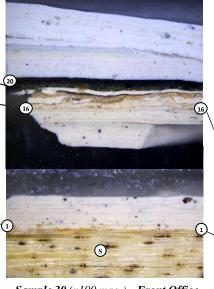
- Scheme 16 is the first scheme found upon the partition wall and has been labelled to show it within the strata of the original walls, sample 12 and 14.
- To demonstrate the correlation between paint schemes of different samples, Scheme 20, a dark, black paint scheme has been labelled across all schemes.
- Sample 20 also marks the change from the use of lead-based oil paint to zinc oil then synthetic resin-based paints of the 20th century and onwards. There are a greater number of later decorative schemes to the samples from the partition wall samples, with only 4/5 schemes of lead seen to the partition wall compared to 19/20 schemes to the exterior walls.

Key

- (1) Number of scheme(s)
- Links decorative scheme
- **Pb** Lead-based oil paint scheme(s)
- (Zn) Zinc-based oil paint scheme(s)
- S Substrate

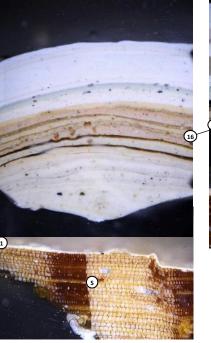
Record of Architectural Paint Research, Pushkin House, Bloomsbury Square





Sample 12 (x100 mag.) – library, north wall, dado rail, lower band. Also representative of samples 10 and 11.

Sample 30 (x100 mag.) – Front Office. North wall, wall below dado, flat.



Sample 36 (x100 mag.) – Front Office. South wall, door architrave. Also representative of samples 35, 37 and 38.

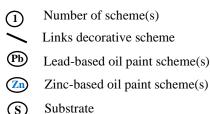
Initial observations:

- Scheme 16 is the first scheme found upon the partition wall and has been labelled to show it within the strata of the original walls, samples 12 & 36.
- To demonstrate the correlation between paint schemes of different samples, Scheme 20, a dark, black paint scheme has been labelled across all schemes.

Key

Sample 34 (*x100 mag.*) – *Front Office*. *West wall, skirting, moulding. Similar*

in stratigraphy to sample 32.



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3.5 Table of Stratigraphy

3.5.1 Library

Sample	1-4	5	6	7-8	9	10-12	11	13	14	15,16	17	18	19	20	21	22, 24	23	25
Room	Library	Library	Library	Library	Library	Library	Library	Library	Library	Library	Library	Library	Library	Library	Library	Library	Library	Library
Elevatio	North	North	North	North	North	North	North	North	North	South	South	South	South	South	South	South	South	South
n	wall	wall	wall	wall	wall	wall	wall	wall	wall	Wall,	Wall,	Wall,	Wall,	Wall,	Wall,	Wall,	Wall,	Wall,
										East Side	East Side	East Side	East Side	East Side	East Side	East Side	East Side	East Side
Location	Cornice	Cornice	Wall	Window	Window	Dado rail	Dado rail	Window	Skirting	Dado	Dado	Skirting	Wall	Door	Wall	Cornice	Cornice	Picture
				Surroun	Surroun					Rail	Rail			Architra				Rail
				d	d			a	~					ve				
Element	Flat and	Reed	Frieze	Fillet/Eg	Outer	Upper	Mid	Shutter	Centre	Upper	Lower	Mouldin	Below	Flat	Frieze	Lower	Egg &	
	Mouldin	Mouldin		g & Dart Mouldin	Flat	and Lower	Band	Recess	Mouldin	and Centre	Beading	g	Dado			Reed and Upper	Dart	
	gs	g		g		Lower			g	Centre						Cyma		
Substrat	Plaster	Timber	Missing	Timber	Timber	Timber	Missing	Missing	Timber	Plaster	Plaster	Timber	Plaster	Plaster	Missing	Plaster	Plaster	Timber
e	1 motor	1111001	Substrate	1111001	1111001	1111001	Substrate	Substrate	1111001	1 100001	1 100001		1 100001	1 100001	Substrate	1 100001	1 100001	1111001
Scheme 1																		
(1744)																		
Scheme 2																		
6.1							-											
Scheme 3	Pale			Pale		Pale	Pale	Pale	Pale									
Scheme 4	Cream			Cream		Cream	Cream	Cream	Cream									
Scheme 4																		
Scheme 5																		
Scheme 6-																		
8																		
Scheme 9				Cream		Cream	Cream	Cream	Cream									
						Cream	Cream	Cream	Cream									
Scheme 10				Pale														
C.1				Cream		Pale	Pale	Pale	Pale									
Scheme 11				Oil		Cream	Cream	Cream	Cream									
Scheme 12							Pale											
Senenie 12				Cream		Cream	Stone	Cream	Cream									
Scheme 13				- ·		- ·												
				Turquoise		Turquoise	Turquoise	Turquoise	Turquoise									
Scheme 14				Buff		Buff	Buff	Buff	Buff									
				Bull		Bull		Bull										
Scheme 15		Cream		Pink (red		Pink (red	Pale	Pink (red	Pink (red	Cream	Cream	Cream	Cream	Cream			Cream	
		distemper		lead)		lead)	Green	lead)	lead)			Cream					distemper	
Scheme 16		White		Light		Light				Dark	Dark		Dark	Dark			White	
C.1				Brown		Brown				brown	brown		brown	brown	-			
Scheme 17		Yellow					Brown			Brown	Brown	Brown		Brown			Yellow	
Scheme 18	Pale	distemper		Light		Light	Light		Light	Light	Light		Red	Light	-		distemper White	
Scheme 18	Cream			Brown		Brown	Brown		Brown	Brown	Brown			Brown			distemper	
Scheme 19							DIOWII				DIOWII						anstemper	
	Cream			Brown		Brown			Brown	Brown		Brown	Red	Brown				

Scheme 20	Distempe r x2					Dark Green		Dark Green	Dark Green	Dark Green	Dark Green	Mid Red		Distempe			
Scheme 21	White distemper	White distemper				Black		Black	Black	Black	Black	Red		r & Paper			Dark Brown
Repair								Black									
Scheme 22	Pale	Pale		Pale	Brown	Cream	Cream		Cream	Cream	Cream	Red	Cream	Cream	Cream	Cream	Cream
Scheme 23	Cream	Cream	Cream	Cream	Oil on Cream	Pale Cream	Cream	Cream			Cream	Cream	Cream	Off-white	Off-white	Off-white	Pale Cream
Scheme 24						Pale Blue		Pale Blue	Pale Blue		Pale Blue	Pale Blue	Pale Blue				
Scheme 25			Paper			Pale Green		Pale Green	Cream	Cream	Pale Green	Pale Green	Pale Green	Paper	Paper		Pale Green
Scheme 26			White	White	White	White		White	White	White	White	White		White	White	White	
Scheme 27				Pale Blue	Pale Blue	Pale Blue				Pale Blue	Pale Blue		Pale Blue				White
Scheme 28	White	White	Pale Blue													-	Pale Blue
Scheme 29	White White				Blue	Blue		White	White	White	White		White	White	White	White	Blue
Scheme 30			Grey Blue	White	White	White		white	white	white	white		willte	w nite	white	White	White
Scheme 31 (Current)			White		white											white	

3.5.2 Front Office

Sample	26	27	28	29	30	31	32	33	34	35 - 38
Room	Front Office	Front Office	Front Office	Front Office	Front Office	Front Office	Front Office	Front Office	Front Office	Front Office
Elevation	North Wall	North Wall	North Wall	North Wall	North Wall	West Wall	West Wall	West Wall	West Wall	South Wall
Location	Window surround	Window surround	Dado rail	Wall Below Dado	Skirting	Dado rail	Dado rail	Wall Below Dado	Skirting	Door Architrave
Element	Flat	Egg & Dart	Lower Moulding	Flat	Centre Moulding	Centre Moulding	Lower Band	Flat	Centre Moulding	
Substrate	Timber	Timber	Timber	Timber	Timber	Timber	Timber	Missing	Timber	Timber
Scheme 1										
(1744) Scheme 2 Scheme 3		Oil on Pale Cream								
Scheme 4 Scheme 5					Pale Cream					Pale Cream
Scheme 5		Pale Cream								
Scheme 6										
Scheme 7		Pale Cream								
Scheme 8		Pale Stone			Pale Stone					
Scheme 9 Scheme 10		Pale Cream			Pale Cream					Pale Cream
Scheme 11 Scheme	Pale Cream	Fale Creatin			Fale Clean					Pale Stone
12 Scheme		Dala Diya Craan			Dala Diva Craan					Dala Stone
13	Pale Blue Green	Pale Blue Green			Pale Blue Green					Pale Stone
Scheme 14	Buff	Buff								Buff
Scheme 15	Cream	Cream		Cream	Cream		Cream		Cream	Cream
Scheme										
16 Scheme 17	Light Brown	Light Brown		Light Brown	Light Brown	Light Brown	Light Brown		Light Brown	Light Brown
Scheme 18				Red				Red		
18 Repair				Thin Oil	Brown over cream	Cream	Cream	Thin Oil over cream	Cream	Cream
Scheme 19	Brown	Brown	Missing Layers	Red	Red			Red		
Scheme 20	BIOWII	DIOWII		Thin Oil	Dark Green	Dark Green				Brown
Scheme 21			Black	Red	Black	Black	Black		Black	

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Scheme 22	C	Brown	Brown	Off-white	Off-white	Off-white	Off-white		Off-white	G
Scheme 23	Cream	Cream		Cream	Cream	Cream	Cream	Cream	Cream	Cream
Scheme 24		Pale Blue	Pale Blue		Pale Blue	Pale Blue				
Scheme 25	Pale Green	Pale Green								
Scheme 26					White			White		
26 Repair						Grey Blue	Grey Blue			
Scheme 27	Grey Blue			Paper	Grey Blue	Grey Blue				
Scheme 28			White	Blue Green		White		Paper	White	
Scheme 29		White	Buff		White		White	White	Buff over primer	
Scheme 30	White			Paper				Paper	White	White
Scheme 31 (Current)			White	Off-white				Grey Blue		

6. **Recommendations**

6.1 Appropriate Redecoration Strategy

Whilst every effort should be made to retain paint archaeology suitable preparation is required to ensure appropriate bonding of the paint films, given the elevated nature of the facets and any future access limitations.

It is noted that the purpose the research was the ascertain the likely insertion of the partition wall. As there is evidence of lead based oil paints seen to the samples taken from the partition wall, where removal may result in impact to the exterior or interior wall to the entrance hall every effort should be made to protect historic paint films and take suitable precautions to reduce the creation of dust and take appropriate health and safety measures.

6.2 Health and Safety

The large proportion of paint films 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 and appropriate Hot Works permits in place. Any waste material from the use of paint strippers should be disposed of according to lead contaminated waste regulations.

Positive identification of paints with a high lead content: Where original architectural features are still extant, early paint films were

identified as lead oil paints and tested strongly positive for lead. Most of these are encapsulated by later, non-lead paint films though there is localised failing. Those working in close proximity to the ceiling need to follow guidelines for working with lead contaminated waste and wear suitable PPE at all times.

7. Glossary of Terms

Cross-section: a sample, mounted in clear resin, polished to exposure all the paint films for microscopic examination.

Decorative scheme: an intended finished appearance of a space.

Dirt layer: a layer of dust or debris sandwiched between decorative schemes. Often seen in exterior paint samples where paint films were applied before the Clean Air Act (1956) and surfaces were not heavily prepared before the application of the new paint film. Dirt films can also be seen in samples from areas of heavy carbon deposits such as interiors where open fires, gas lighting etc. were employed. Dirt films can be indicative of long periods of time between schemes of decoration.

Oil Paint: Dry, finely-ground pigment which is made into a paste with an oil, such as linseed, poppy or walnut. The paste may then be diluted with more oil and/or a spirit such as turpentine or white spirit.

Lead oil paints: Defined as oil paint with a white lead or red lead filler. The translucency of white lead oil paint increases with age by virtue of saponification of basic lead white with oil, forming lead linoleates. This represents a graceful alteration of the paint, leading to a more yellowed tone with time.

Gilding: an application of gold or metallic leaf applied to a surface as part of a decorative scheme. Oil or water gilding can be used and exterior oil gilding can include double gilding for a more durable finish.

Paint sample: the physical sample of paint. The sample should include all paint films and a small section of substrate where possible.

Paint film: a single application of paint, a number of paint layers make up a decorative scheme.

Paint scheme: a combination of a number of paint layers to form the intended scheme of decoration.

Photomicrograph: an image of a cross-section taken through the microscope.

Primer: a preparatory film applied beneath an undercoat, can be applied as a continual film or as a spot primer where the underlying or existing coatings need additional preparation prior to the application of a new scheme of decoration.

Substrate: the underlying material upon which the paint film has been applied.

Topcoat: the uppermost paint film of an applied decorative scheme. A topcoat can be used to pick out an architectural facet or have a number of paint layers to make up a polychrome or stencilled scheme.

Undercoat: a preparatory paint film(s) applied to a surface prior to the application of a topcoat or varnish film. An undercoat can be built up in several layers.

8. Bibliography

Donald Insall Associates. (2021). Pushkin House, 5a Bloomsbury Square; Pre-Application Historic Building Report. London: -

Appendix I: Archive Information

No archive information was supplied by the client and archival research was not commissioned as part of this analysis. However, as part of on-going architectural paint research to the property any existing research was consulted and has been listed in the Bibliography.

Any additional material was found through an internet search and has been referenced where quoted. Record of Architectural Paint Research, Pushkin House, Bloomsbury Square

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