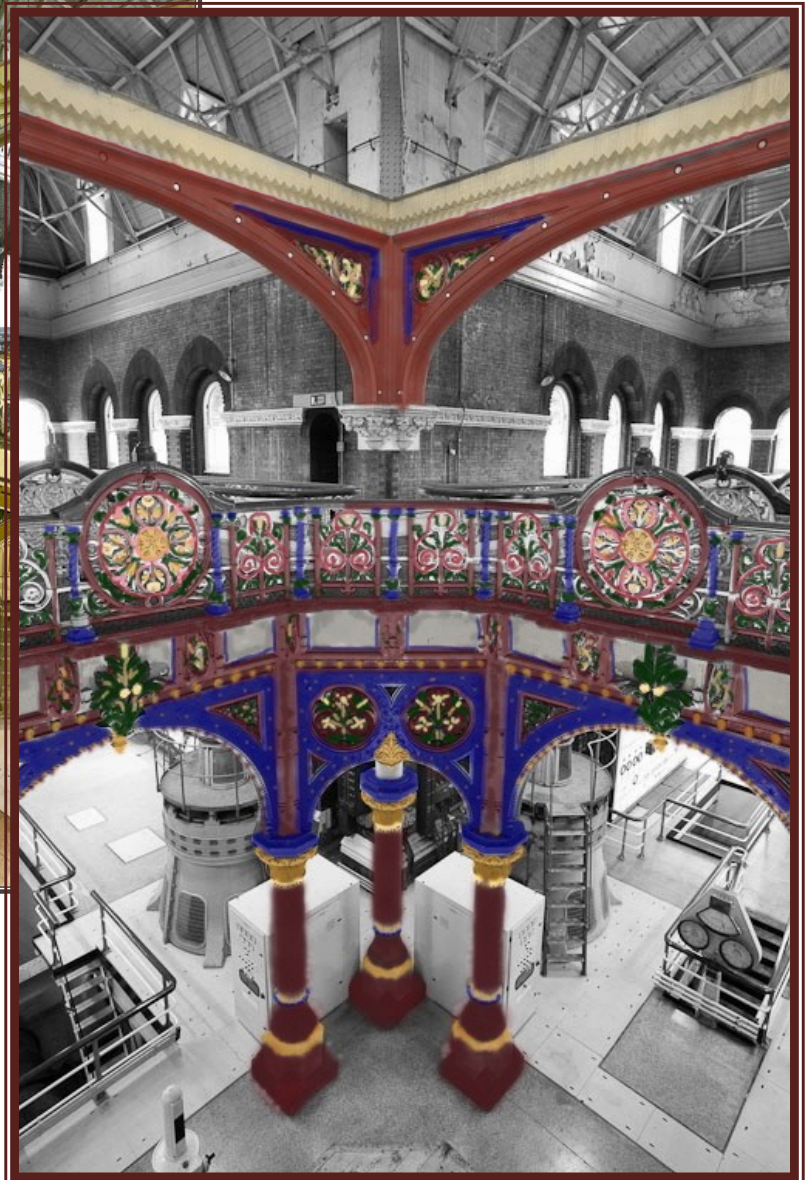
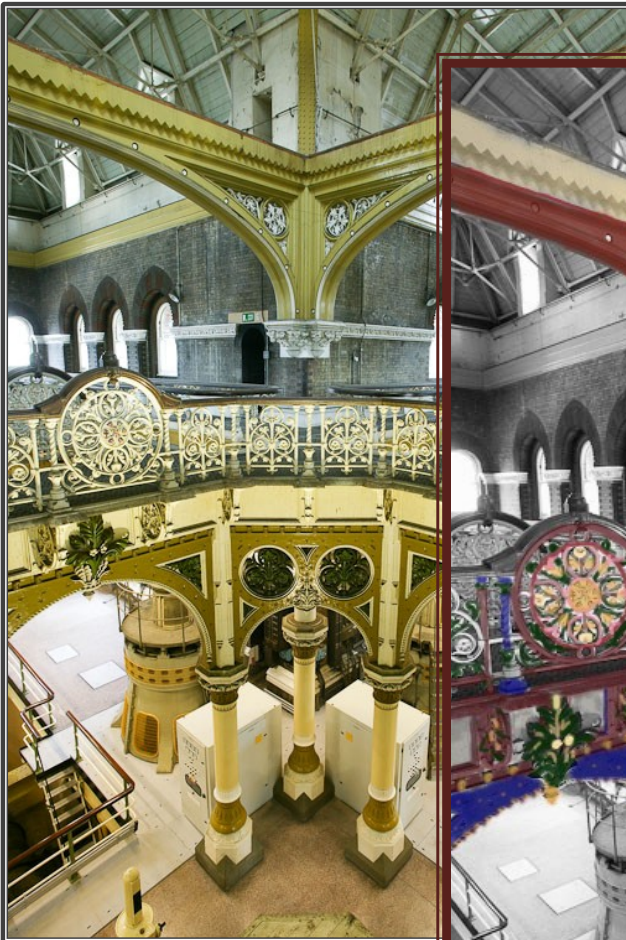




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Historic Interiors Research and Conservation

ABBEY MILLS PUMPING STATION

Research to determine the original 1865-68 Decoration



March 2012

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Abstract

Public Access

- This project offers an opportunity to raise the profile of Abbey Mills, create an exhibition about the project and increase visitor numbers.

Findings

- Research revealed that **the original 1866-68 scheme was extremely sophisticated**, designed to emphasise and enhance the complex three-dimensional design of the cast iron-work. The polychrome decoration was evidently part of the original design concept. The painted scheme was well executed, and evidently carried out by skilled craftsmen who carefully adjusted the colours to ensure that the scheme was well balanced. **The shading and modelling of the naturalistic foliage and the interplay of gold leaf, glazes gold leaf and yellow paint is extremely sophisticated.** The painted decoration of the interior of Abbey Mills was evidently **as ornate as that applied to the cast-iron work at Crossness Pumping Station.**
- This original lead-based oil paint scheme appears to have been recreated once, before being over-painted in a much simpler light coloured scheme. After WWII the interior was repainted three or four times in modern alkyd-resin based paints.

Original 1865-1868 Scheme

- Digital reconstructions of the original scheme, included in this report, blocks out the placement of the colours. **The digital recreations should not be used for colour matching.**

Recreation of the 1865-1868

- It should be possible to **recreate a section of the original scheme using modern paint systems.** On site trials would need to be carried out on site to establish and refine - with reference to the mounted cross-sections - the original colour palette, the use of glazes and modelling.

Surface Preparation

- The moulded detailing is obscured by the thick layers of paint layers. **The removal of the paint layers should be considered - in those areas to be redecorated.** Various options for paint stripping may be considered;

Sharing Research Findings

- The results of this research could be used to create an exhibition focussing on the interior decoration within Abbey Mills Pumping Station. It is also suggested that the innovative restoration project may be worthy of consideration for a conservation ward.

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APPENDIX I Cross-section List/Sample Location

Archive: All digital images and documents are copied to CD disc. Samples, cross-section blocks to be retained in the archive of Helen Hughes – Historic Interiors Research & Conservation. Archive is viewable by appointment.
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Research Brief

Research was required to establish the exact appearance of the original decoration. There was photographic evidence to suggest that the original schemes was ornately painted and gilded. A black and white photograph taken in the 1930s indicates the complex polychrome and gilded decoration in existence at that time.

History & Context

Abbey Mills Pumping Station was built between 1865-1868 to the designs of Joseph Bazalgette and Charles Driver. It has been hailed as the '*Cathedral of Sewerage*'. It is a Grade II* listed building, and although the beam engines have been removed it still functions as an operational station. It is located on the Greenway – the pedestrian track which runs through the Olympic site. As part of the preparations for the 2012 Olympics, Thames Water is planning to improve its visitor facilities and recreate a section of the original internal painted decoration of the highly flamboyant Italian Gothic Style cast ironwork arcading.

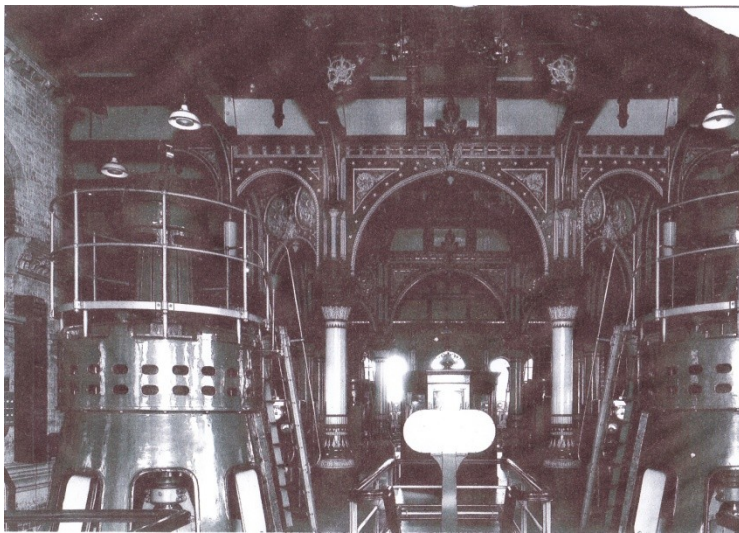


Figure 1 Abbey Mills interiors c.1930

Crossness Pumping Station (Grade I)

Abbey Mills has a twin – Crossness Pumping Station (Grade I) – located in south London which was abandoned during the 1950s and is now run as a historic site. During the 1980s sections of the ornate polychrome decoration of the interior of Crossness were recreated. The two pumping stations exhibit the same level of architectural intricacy and the research presented in this report has established that the original internal decoration of Abbey Mills mirrors that replicated at Crossness, in its richness and complexity.





Figure 2 Abbey Mills Pumping Station 2012



Figure 3 Crossness Pumping Station c.1980

The recreation of the Crossness interiors was carried out in the 1980s. Whether this recreation is based on the last extant scheme visible or the original decorative scheme needs to be established.



Figure 6 Crossness Pumping Station - Detail of Capital

Reconstruction of Capital of column – NB Estimate 40 -50 areas differentially decorated



Figure 7 Crossness Pumping Station - General view of un-restored areas

Crossness – Recreation of the original decoration



Figure 4 Crossness - Capital Before & After Redecoration



Figure 5 Crossness - Redecoration of upper panel

Preliminary On-site Investigation – October 2011

A preliminary site visit was made on 10th October 2011. The existing decorative scheme applied to the cast ironwork is in a modern alkyd resin paint (in shades of khaki, deep green and cream). It is in a good state of repair, and was probably applied within the last five years. It was noted that the moulded detailing was obscured by the accumulated paint layers



A set of paint samples (40 samples) were removed from the base and shaft of one of the columns. These samples were mounted in resin and ground to expose a cross-section of the surviving paint layers. These paint layers were examined under high magnification (x50 – x500) using normal and ultra-violet illumination.

Examination of the paint samples revealed that the ironwork had been decorated about eight times – 3 or 4 times in post WWII alkyd resin paints – and 3 times in earlier traditional oil-based paints. The paintwork had been partially stripped in areas at lower level, prior to the application of post WWII schemes – but in most areas the full stratigraphy of the historic paint layers have been retained. It was therefore possible to establish the original decoration of cast-iron work. It was estimated that the research would require the removal and examination of about 600 samples to establish the detailing of the original scheme.



Initial Observations

Close up examination of the detailing of the cast iron work revealed the highly quality and complexity of the scheme. Although differing in design and detailing from the Crossness scheme – which is based on a series of intricate lattice panels – the cast-iron work of Abbey Mills was obviously the product of a carefully planned scheme for the entire building. Foliate elements, leaves, flowers and snaking tendrils are playfully integrated with architectural elements.



This blending of nature and formal architectural elements is continued on other of the elements of the interior and exterior – the applied metal-work on the main door, the window tracery and the decorative cornices.



Sampling Strategy

For the purposes of collecting paint samples and the presentation of findings the cast-iron work was divided into 4 main areas. Samples were removed from each decorative element which may have been picked out in different colours.

Location 1 – Upper Arches



Sample Locations: Nos. 425 - 462

Location 2 – Balustrade & Metal Floor



Sample Locations: Nos. 501 - 595

Location 3 – Main Arcade Upper



Sample Locations: Nos. 201- 256 Nos. 300-350 Nos. 379-395 Nos. 400-425

Location 4 – Columns



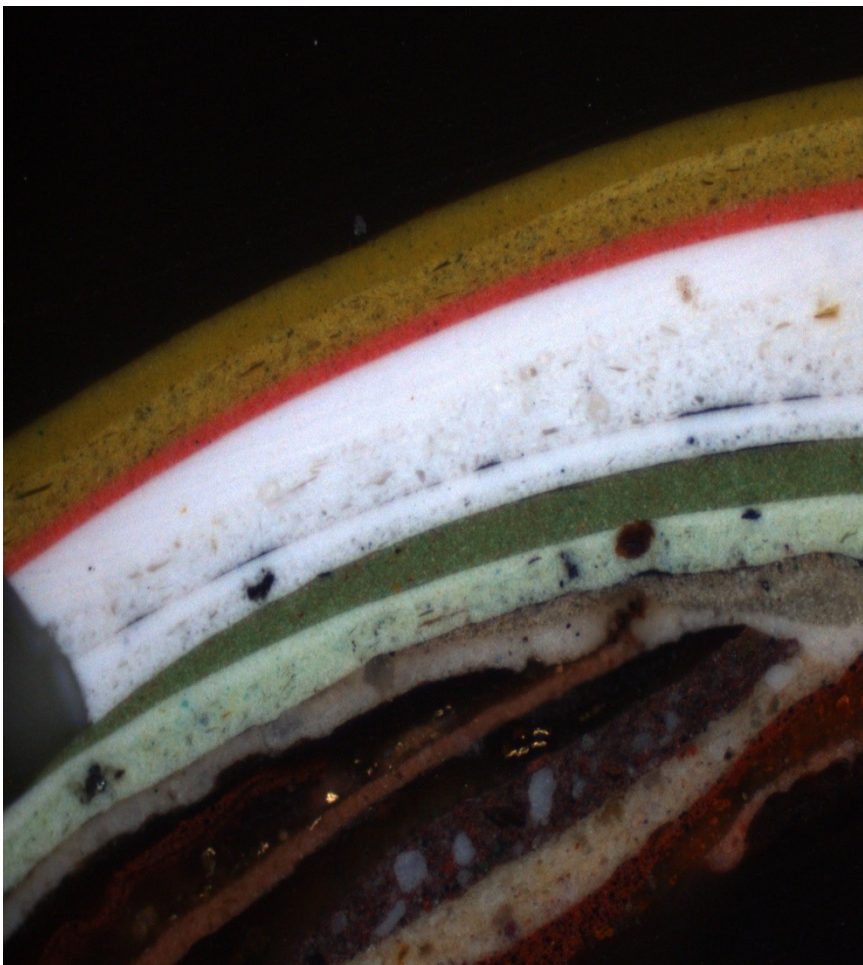
Sample Locations: Nos. 1-36 Nos. 350- 358 Nos. 364-378

Identification of the Original 1865-68 Scheme

Examination of samples revealed that the ornate cast-iron arcading had been repainted seven times. The three/four most recent schemes are alkyd-resin based c. late 1950s - when in the UK alkyd-resin paints replaced traditional lead-based paint systems.

There are three lead-based decorations which pre-date WWII

Edge of Recess – Sample 20



Ref AM/5/20

Sample Location

Original Decoration of edge of recess: Dark red with picking out in white and maroon - varnished

3/4 Post 1950 Schemes

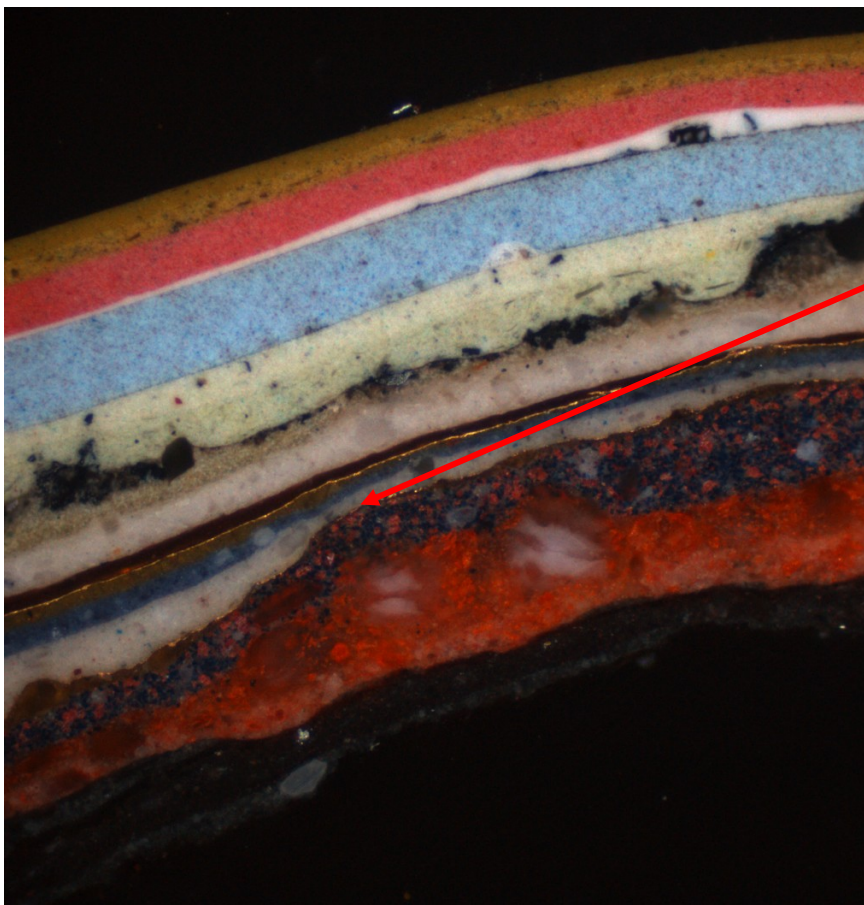
3 Pre WWII Schemes

Sample Location

Location 3 – Sample 217
Centre of Star Recess –
Arcade frame

Establishing the Original 1865-68 Decoration

The original scheme included a complex system series of undercoats and multilayered top coats. Areas which had been decorated with **gold leaf** provided an important marker of the top layer of the original decoration. It was established that the original top coats were applied directly over the distinctive red-lead undercoat.



Gold Leaf of 1865-1868 Scheme

Original 1865-1868 Scheme

Ref AM/54/217

Sample Location

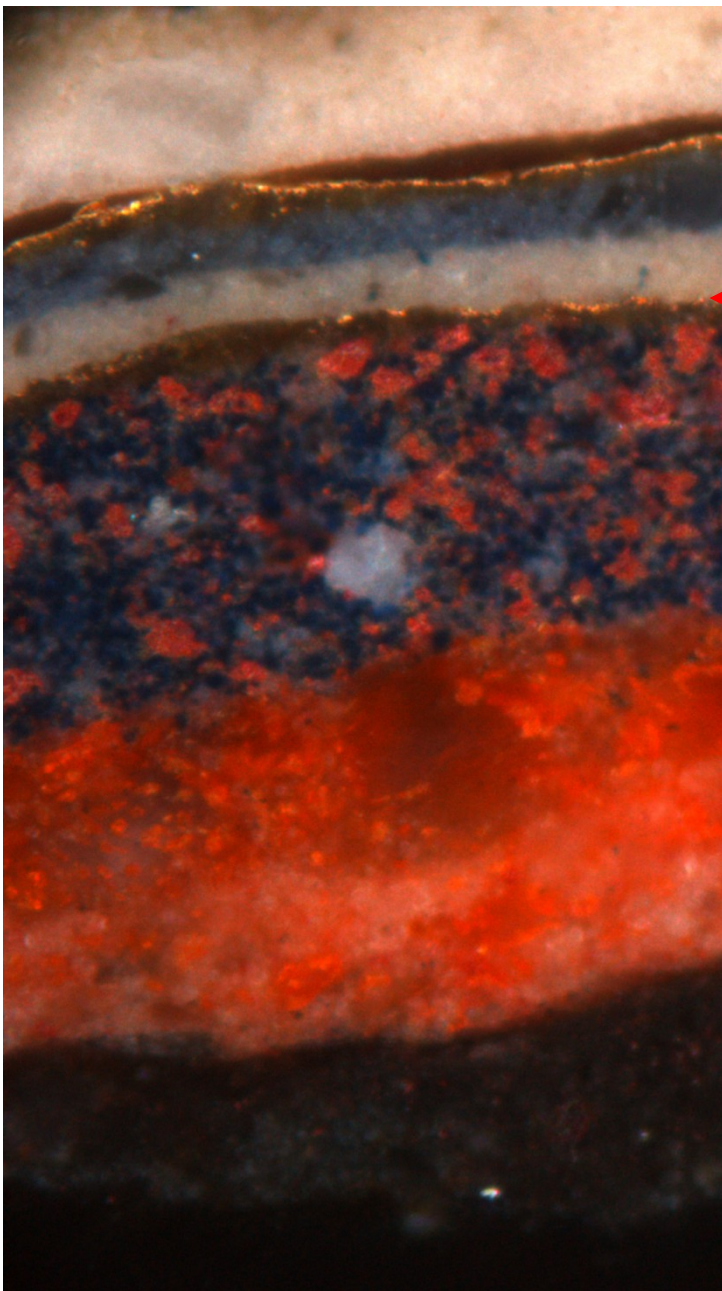
*Location 3 – Sample 217 Centre of Star
Recess – Arcade frame*

The Original 1865-68 Decoration

Photo-shop reconstruction of a detail of the the original scheme



Gold- leaf (star recess) on Blue



Second Decoration (Repeat of the original scheme)

1ST SCHEME

Gold Leaf & Blue Background

Red-lead Undercoat

Pale pink undercoat

Dark Grey Primer

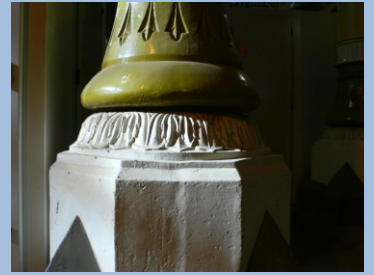
Ref. AM/4/13

Original Decoration of Moulding : Gold Paint - varnished

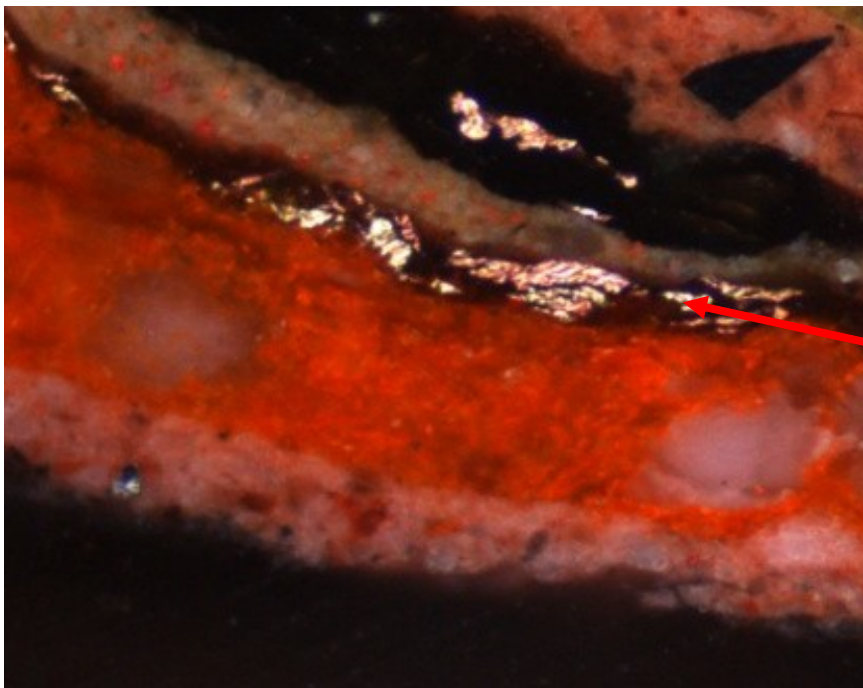
Original 1865-68 Decoration

Other elements had been decorated using **gold paint** which had been embellished with a tinted glaze.

Gold Paint on base of column



SAMPLE LOCATION



Second Decoration
(Repeat of the original scheme)

Gold Paint & Glaze

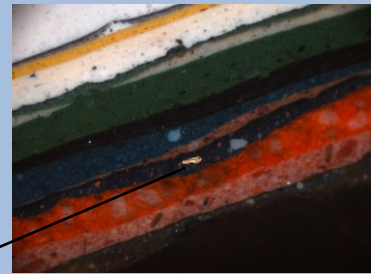
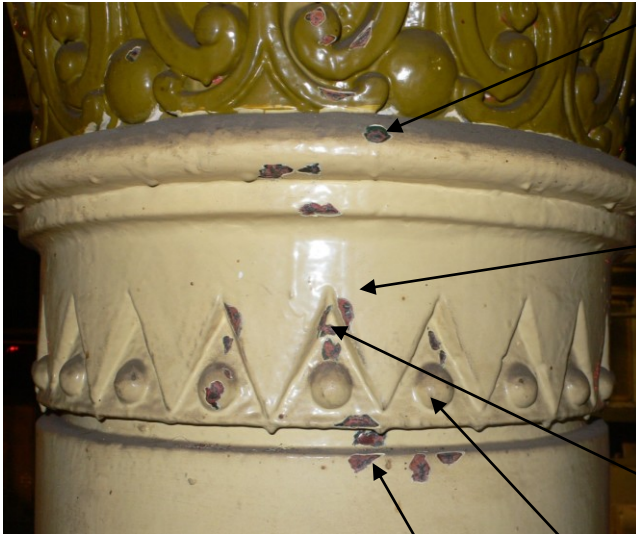
Red-lead Undercoat

Pale pink undercoat

Dark Grey Primer

Top of Column Shaft

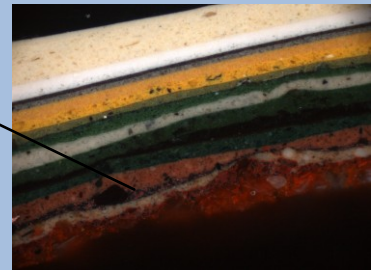
Paint samples were examined under high magnification and the original decoration was Identified.



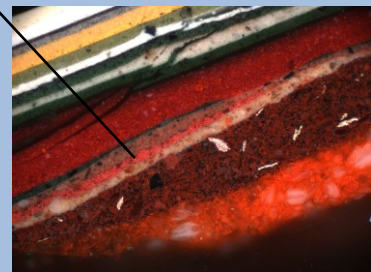
Top Moulding – Dark Blue



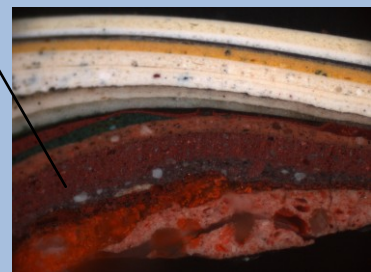
Main Body - Peach



V Shaped Recess – Blue

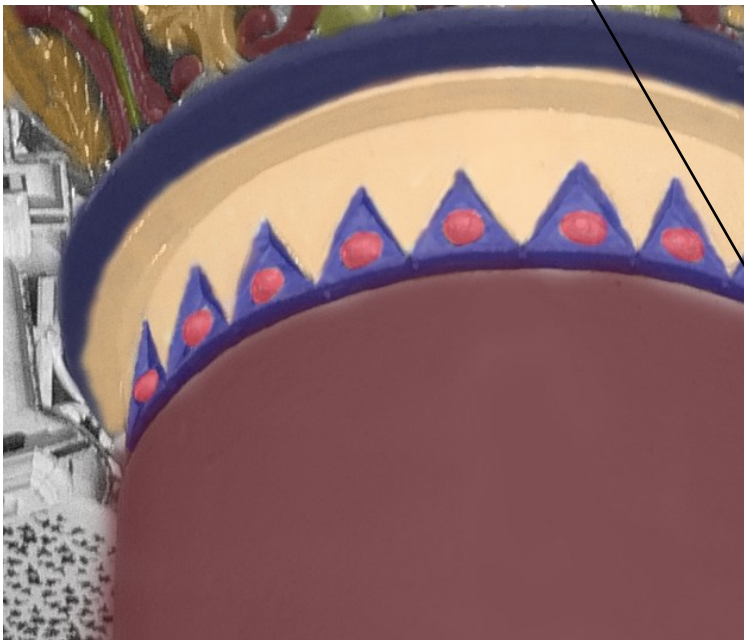


Balls - Pink



Column Shaft – Maroon – adjusted to Dull Red

An approximate of the colour was replicated using Photoshop to provide an impression of the original decoration.



Digital Recreation of Original Scheme – Location 4 - Column

This digital reconstruction blocks out the main body colours – **Yellow** areas denote areas painted in gold paint and glazed. The application of glazes would have created a much more sophisticated scheme.

Capital of Column



ILLUSTRATION NOT TO BE USED FOR COLOUR MATCHING

Location 4 - Base of Column

This digital reconstruction blocks out the main body colours – **Yellow** areas denote areas painted in gold paint and glazed. The application of glazes would have created a much more sophisticated scheme.



Comparison of Abbey Mills Decoration and Crossness Decoration

The tinted glazes on the gold paint and the naturalistic modelling of flowers and foliage is absent from the digital recreation of the Abbey Mills Scheme. This would be recreated an experienced specialist decorator. **The Abbey Mills scheme would then match the quality of the Crossness scheme.**



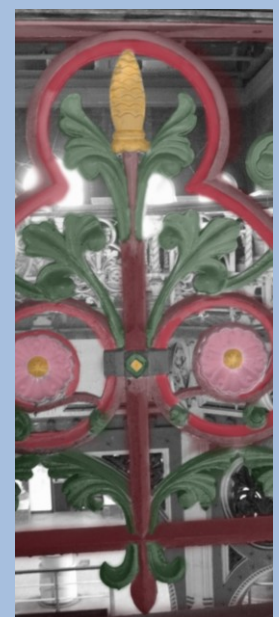
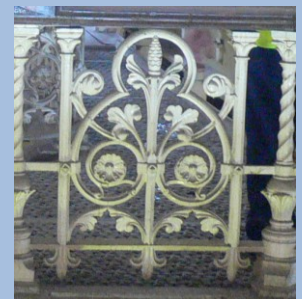
Analysis of the Original 1856-68 Scheme

Close examination of the cast-iron work reveals the quality of the three-dimensional design. It forms part of a carefully co-ordinated scheme which has been applied to all of the decorative elements of building. The scheme is based on the playful integration of nature and architecture. The detailing of the spandrels of the ground floor arcading, upper arches and ornate balustrade are decorated with architectural elements playfully intertwined with foliage and tendrils. The panels of the balustrade, for example, architectural elements sprout leaves and flowers. The original polychrome and gilded decoration enhances the scheme and was obviously an important aspect of the original design concept – in fact without the painted decoration the design intention is illegible.

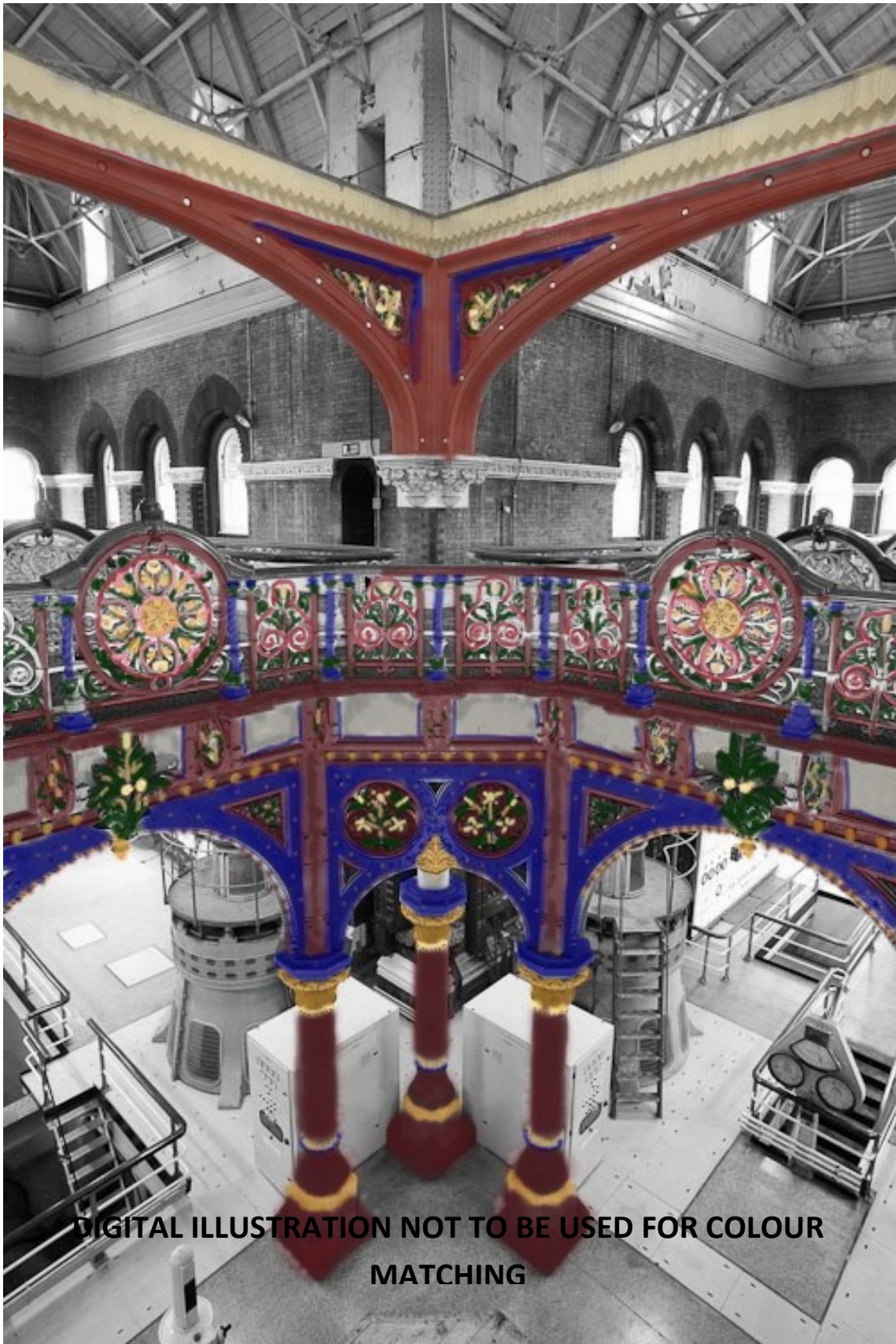
The architectural framework is decorated in a very well thought out scheme. The original scheme is based on an interplay of two main colours, the main colour is **MAROON** and the secondary colour is **BLUE**. The maroon colour is relieved with shades of **PEACH, PINK** and **DULL PINK**. The secondary colour **BLUE** applied to the main frame of the arcade is intergrated into the scheme by the use of **DARK BLUE** applied to smaller mouldings and architectural details. The colours were carefully formulated using a limited range of pigments to create a harmonious scheme. The **MAROON** is modified to a darker shade on the colour shafts to give these elements more strength - and slightly lightened to a **RED-BROWN** for the decoration of the upper arches. The darker colours dominate the lower levels with the peach and pink being used as highlights – while the light peach and pinks dominate the upper arches.

Selected elements were decorated with **GOLD PAINT** - much cheaper but less durable than **GOLD LEAF** – embellished with glazes to give a more lustrous appearance. Gold leaf was applied to specific elements to give maximum impact – on the faces of the central pendants, the star recesses on the arcade, and the detailing of the balustrading.

A great deal of effort was expended on the naturalistic modelling in shades of **GREEN** and subtle shading and glazing of the foliage and flowers. The digital reconstructions of the original scheme can only give a very general idea of the original scheme. The exact tonal relationship of the 11 colours needs to be established in trials. The modelling of the foliage and flowers can be recreated by careful reference to the cross-section samples and application of trials to the architectural elements.



Digital Recreation of the Original 1886-85 Scheme



**DIGITAL ILLUSTRATION NOT TO BE USED FOR COLOUR
MATCHING**

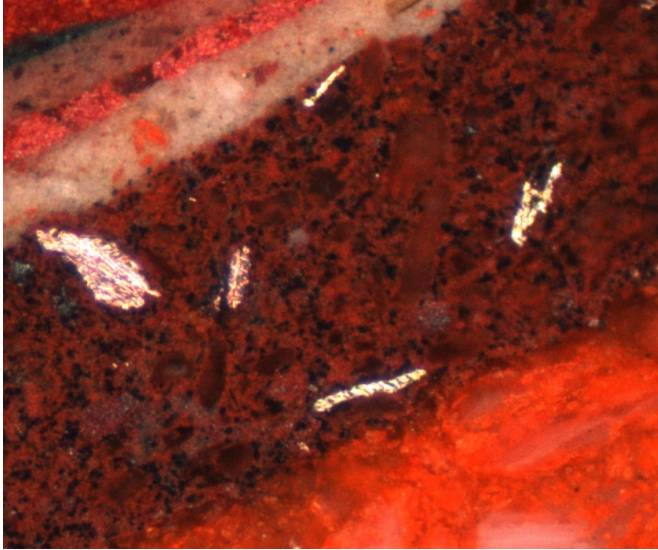
Discussion of Colour Palette

The investigation of the painted decoration revealed sophisticated application use of a fairly restricted, but carefully selected colour palette of **13 body colours** ; green, red and black glazes; and gold paint and gold leaf. The foliage and flowers have been subtly modelled with coloured glazes and shading. Some of the leaves have been painted using mixed greens.

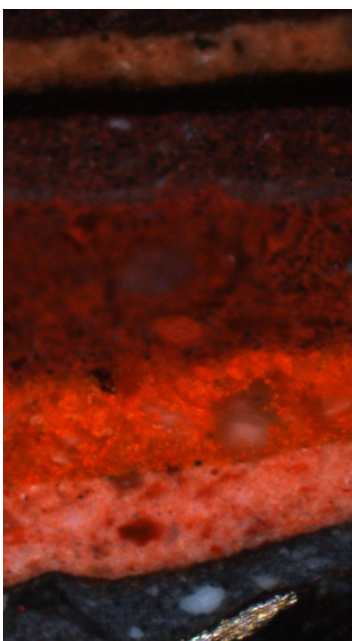
Main Colour	1. MAROON
Related Shades	2. PEACH
	3. RED-BROWN
	4. PINK
	5. DULL PINK (Pink-blue)
	6. BLUE
Main Contrasting Colour	7. DARK BLUE
Detailing	8. DARK GREEN – Leaves and tendrils
Foliage	9. MIXED GREEN – leaves
	10. LIGHT BROWN – STEMS
	DARK BLUE
	11. CREAM – Petals
	12. YELLOW – Centre of Flowers
Foliage Glazes	Green
	Red
	Black
Highlights	GOLD LEAF
	GOLD PAINTwith glazes
	13. BLACK
Recesses	

1. MAROON

Maroon is the main colour of the scheme and was applied to the main framework of the cast ironwork. It was applied directly over the red-lead undercoat. It is composed of a red pigment mixed with blue-black or black pigment.



The maroon colour was applied to the column shafts but the original colour of the shafts was adjusted to a slightly darker colour shade to give the columns more weight. At some date the column shafts were varnished.



Adjusted Maroon
– Darker

Maroon colour
applied to main
framework

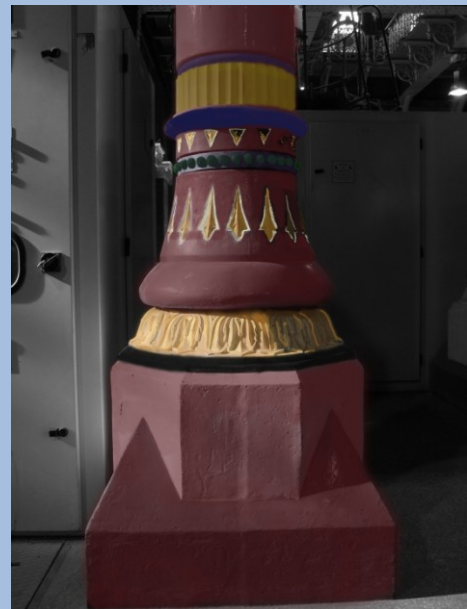


Figure 8 Base & Shaft of Column

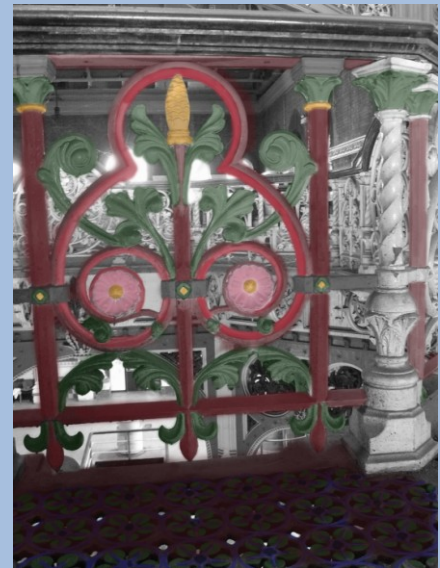


Figure 9 Main frame of 1st Floor Balustrade



Figure 10 Column Shafts - Darker Maroon

2. PEACH

The peach colour is a mix of pink pigment and white lead. It was applied to smaller mouldings on the architectural frame to provide variety.

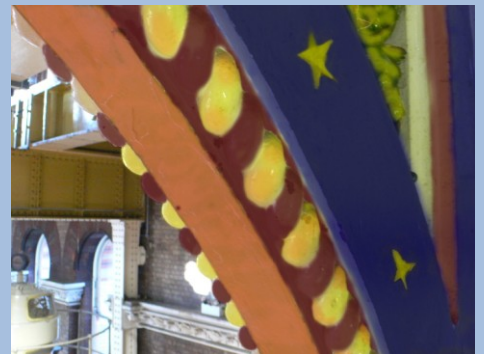
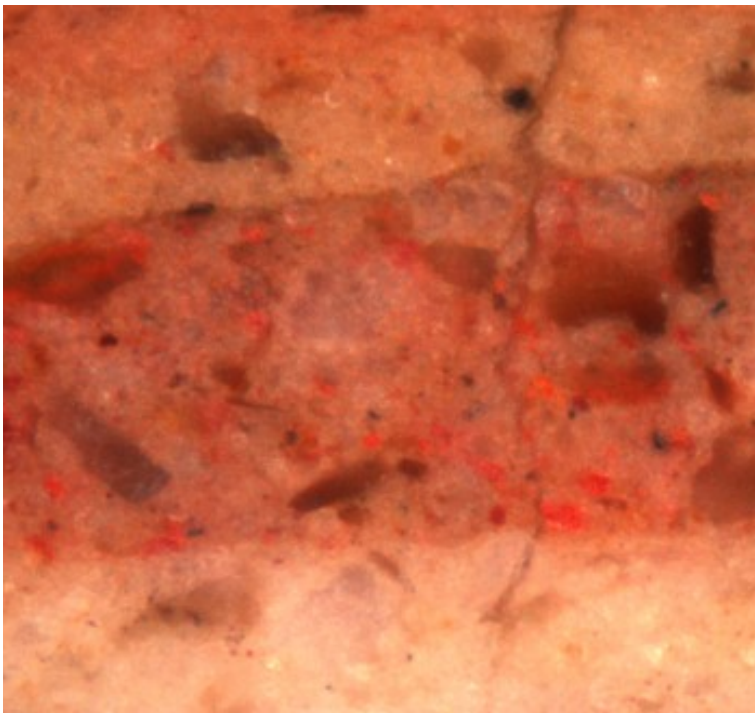


Figure 11 Underside face of main arch

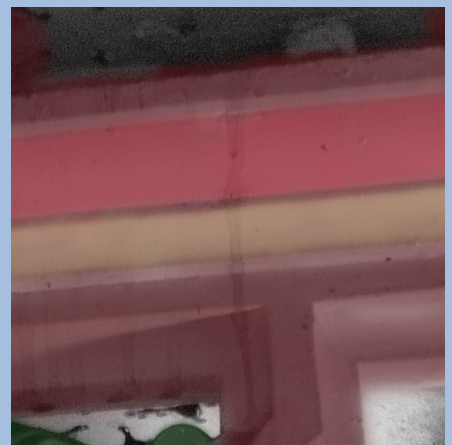


Figure 12 Detail of upper mouldings

3. RED-BROWN

This red-brown is a lighter shade of the maroon colour. It was applied to the frame work of the upper first floor arches.

This adjustment of the maroon to a lighter shade of brown was probably made to lift the colour at upper levels .

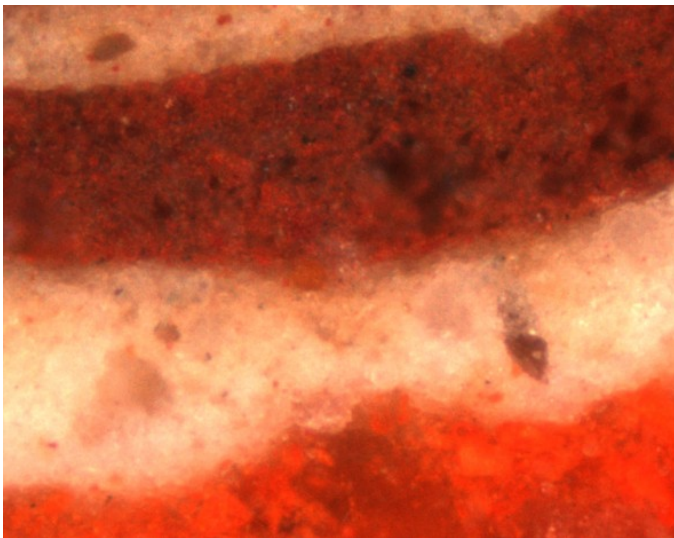


Figure 13 Body colour of upper arch

4. PINK

The distinctive pink is used for picking out of detailing and to highlight details and back ground mouldings.

It is composed of the pink-red pigment added to the Blue. The use of the same pigments to create the colour palette would create a unity within the scheme

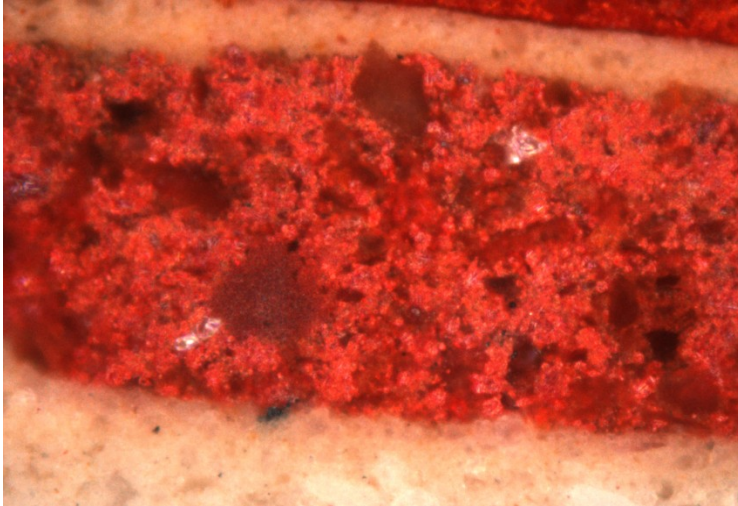


Figure 14 Pink on upper moulding



Figure 15 Pink picking out of balls on column capital

DULL PINK

A less intense shade of dull-pink was applied to the framework of the first floor balustrading

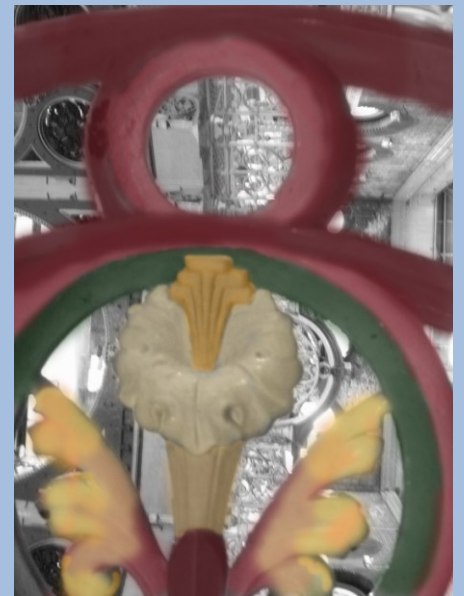
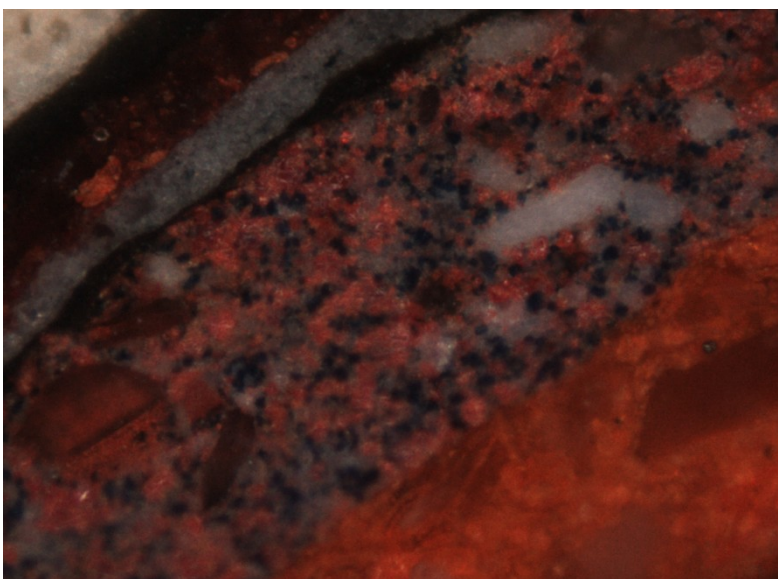


Figure 16 Dull- Pink on 1st Floor balustrade (detail)

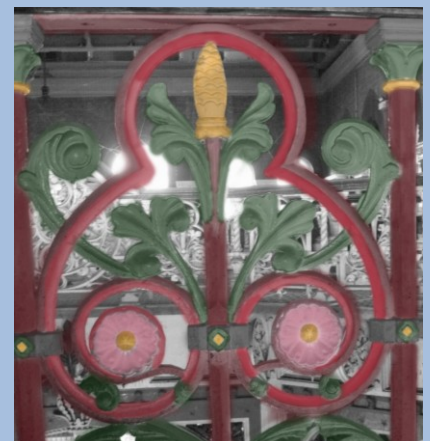


Figure 17 Dull Pink and Pink on 1st Floor Balustrade

5. BLUE

The blue is a mixture of a blue pigment and an distinctive pink-red coloured pigment. The blue (with a purplish cast) is used on the main frame of the acrating and for the picking out other details in other areas.

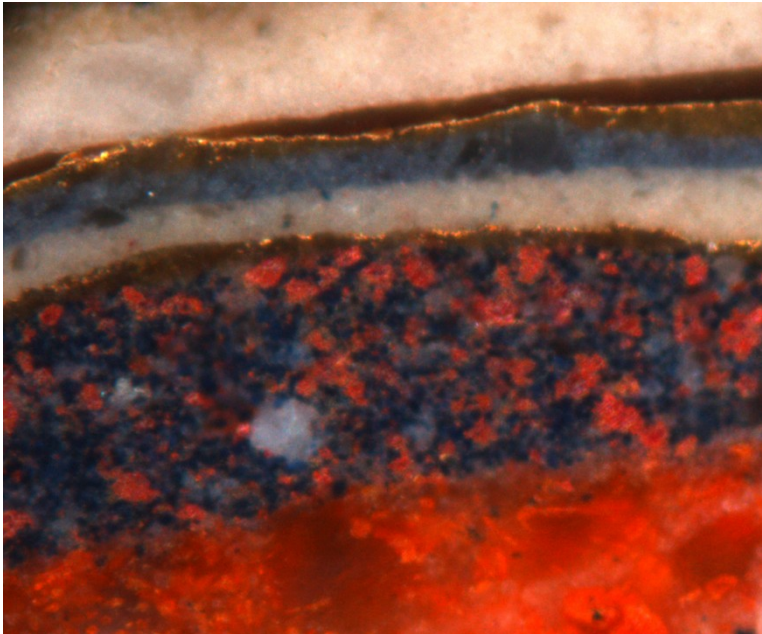


Figure 18 Blue on bed of arcade arch



Figure 19 Dark blue picking out of moulding and recesses

6. DARK BLUE

The dark blue applied to details of the mouldings is a mixture of blue in white

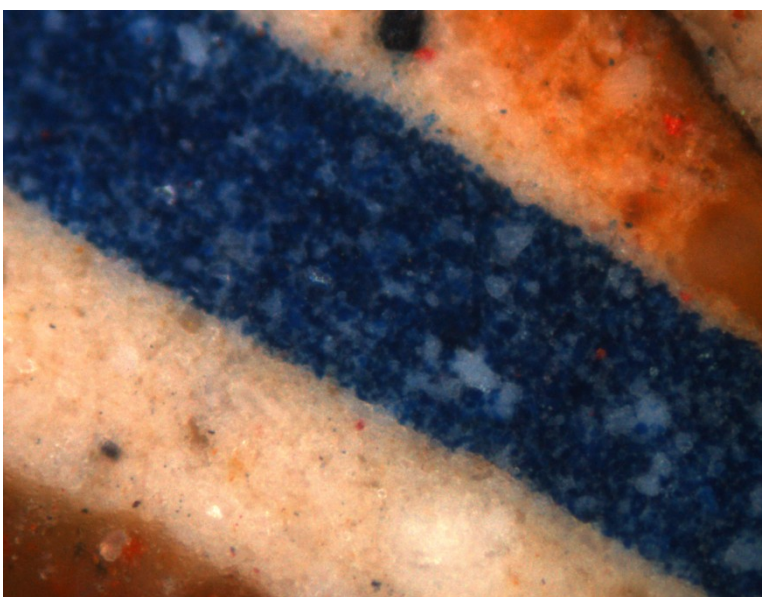


Figure 20 Dark blue on column of 1st Floor balustrade

MAROON, DARK BLUE, DARK GREEN & BLACK

The cast-iron floor is decorated in the maroon colour with the detailing picked out in dark green, dark blue and black.

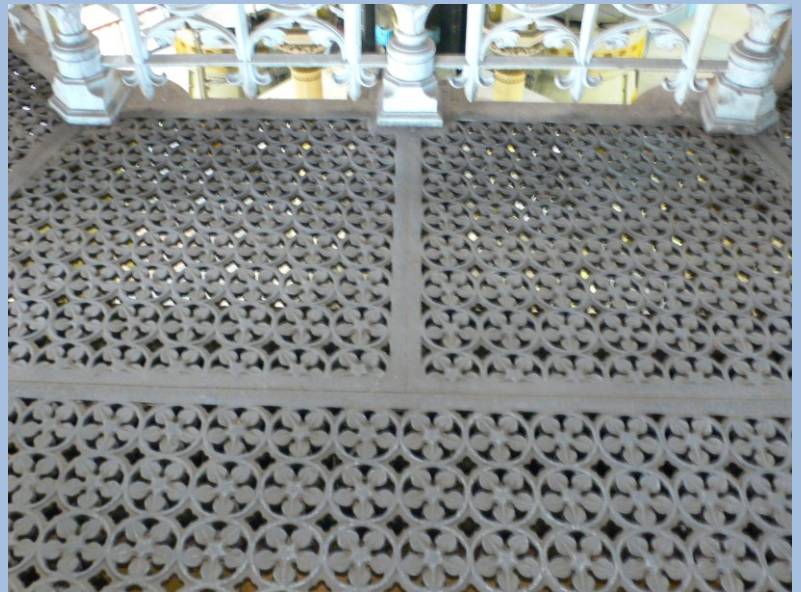


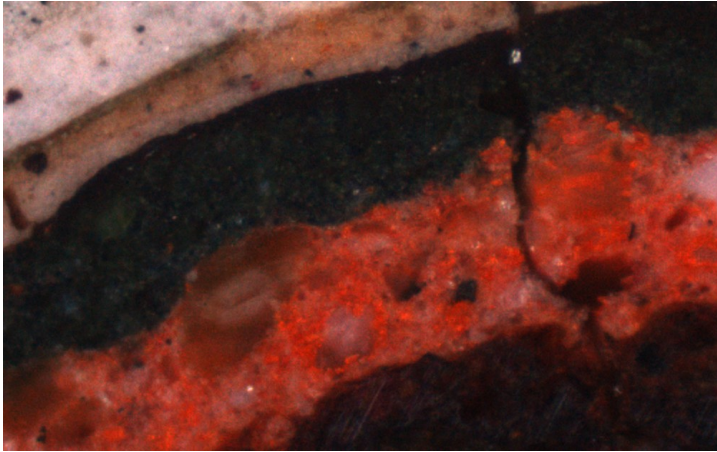
Figure 21 Cast-iron floor - 2012



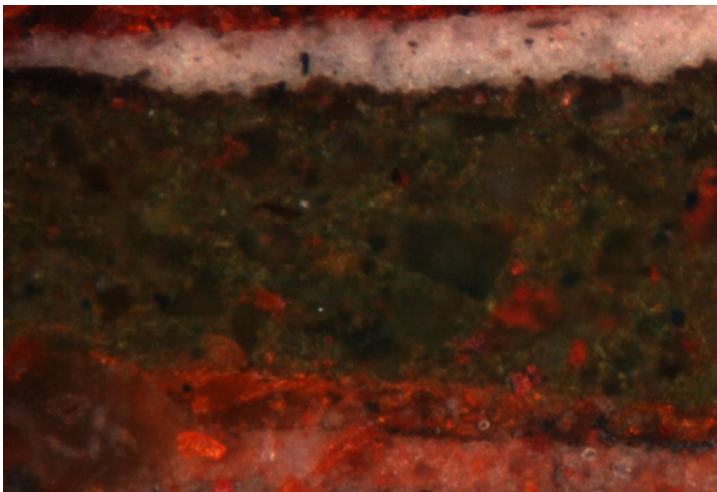
Figure 22 Original decoration of cast-iron floor - Maroon, dark green, dark blue and black

8. **DARK GREEN**

A range of greens was applied to the leaves of the decorative elements



9. **LIGHT GREEN**



MIXED GREEN

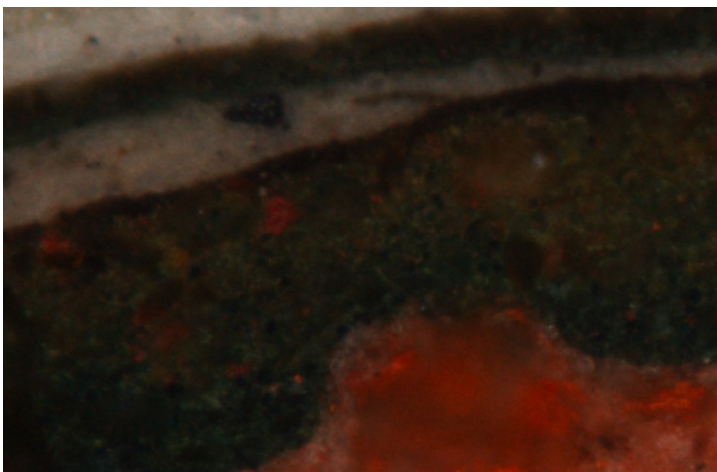


Figure 23 Green foliage of central arch - use of mixed greens and shading

BLUE BLACK

Some of the edges of the leaves are shaded in a deep blue-black

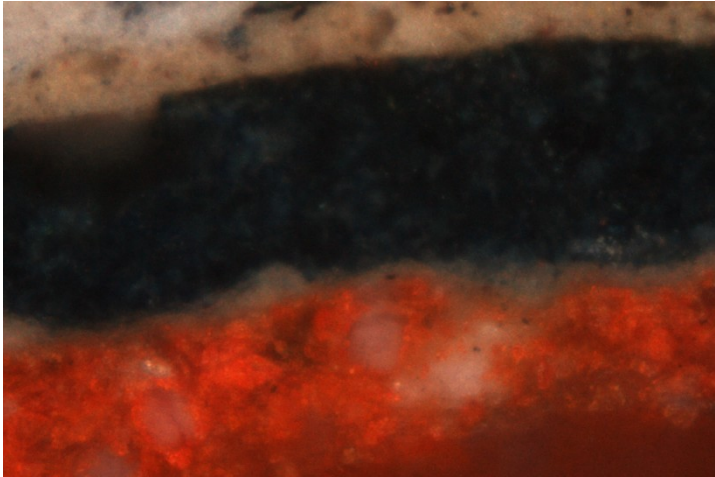


Figure 24 - deep blue glaze Foliage on upper spandrel

SAGE GREEN – WITH GOLD FLECKS

The small leaves on the capital of the columns are painted in a light sage green which has been mixed with gold paint.

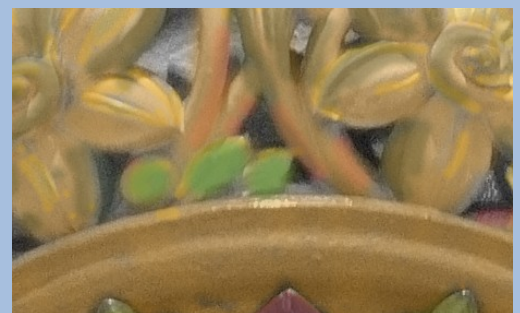
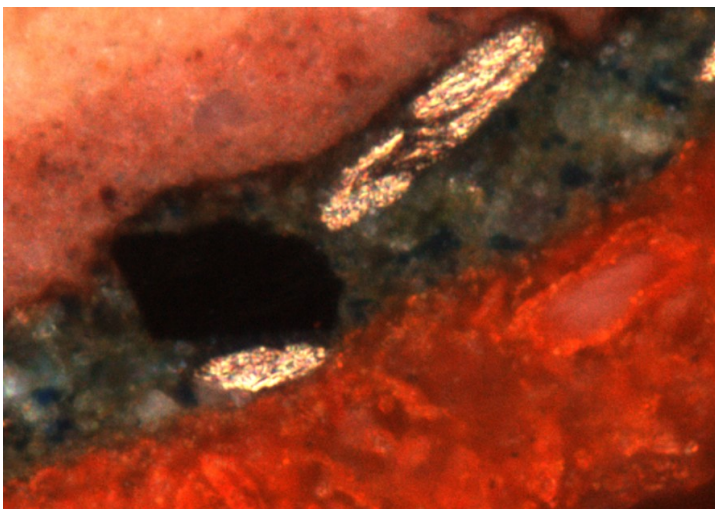
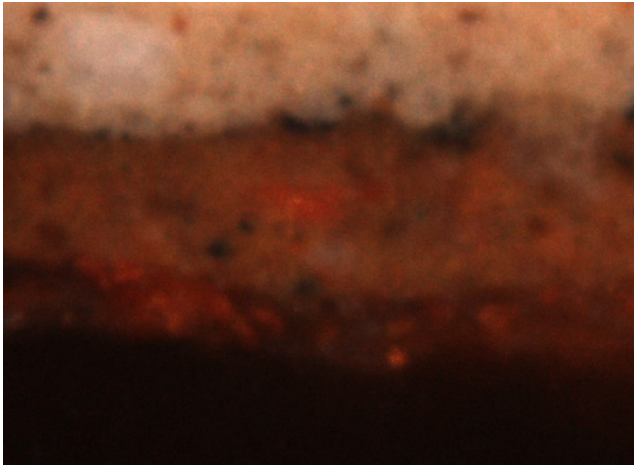


Figure 25 Selected leaves on capital of column painted in sage green

10. LIGHT BROWN - STEMS



11. CREAM - PETALS

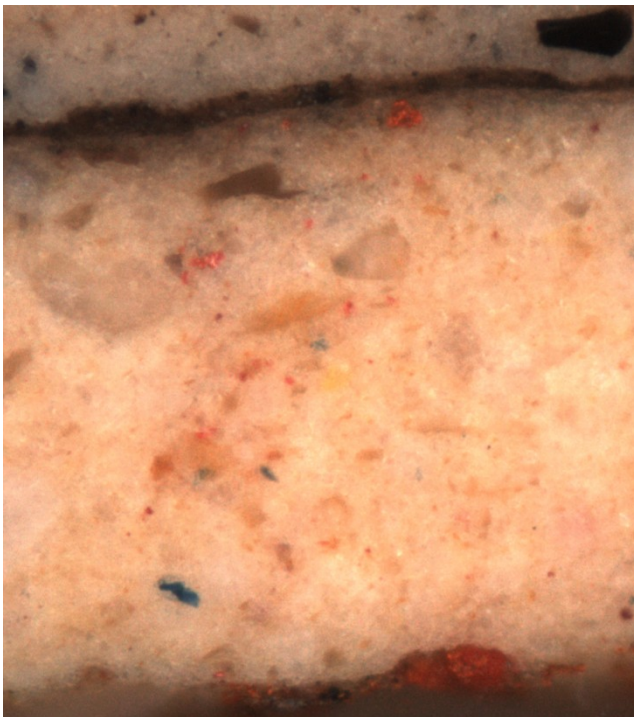


Figure 26 Stems and tendrils -painted in light browns



Figure 27 Petals painted in cream - but heavily glazed with black

GOLD LEAF

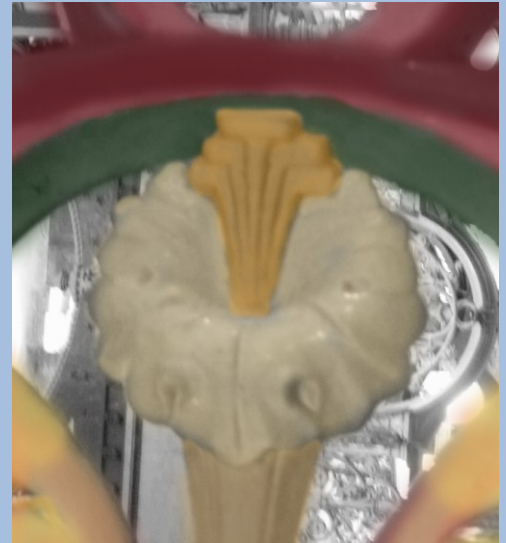
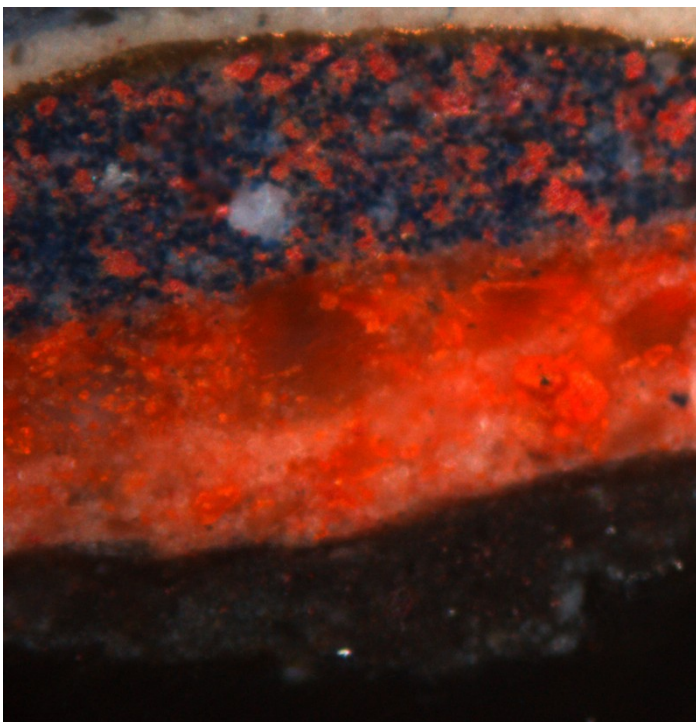
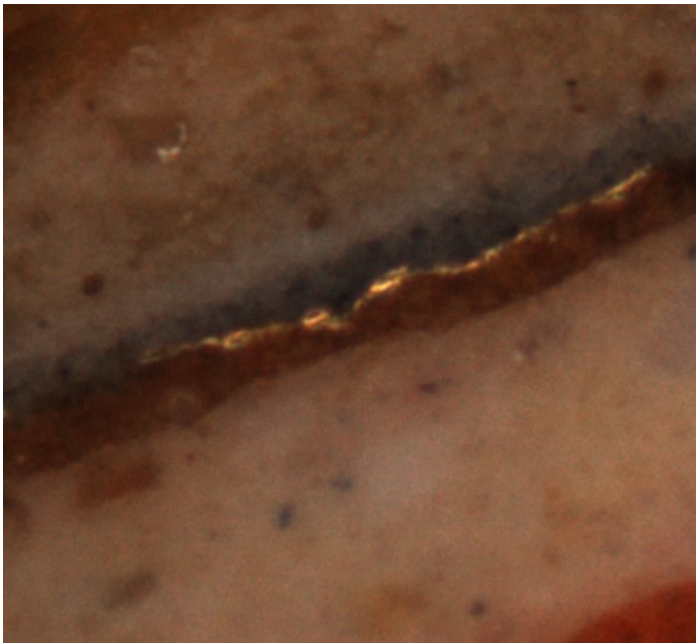


Figure 28 Gold leaf on stamens of flower - 1st Floor Balustrade

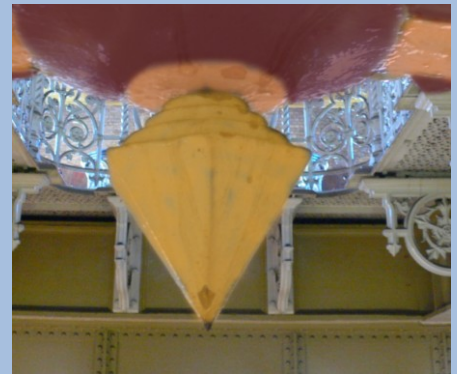
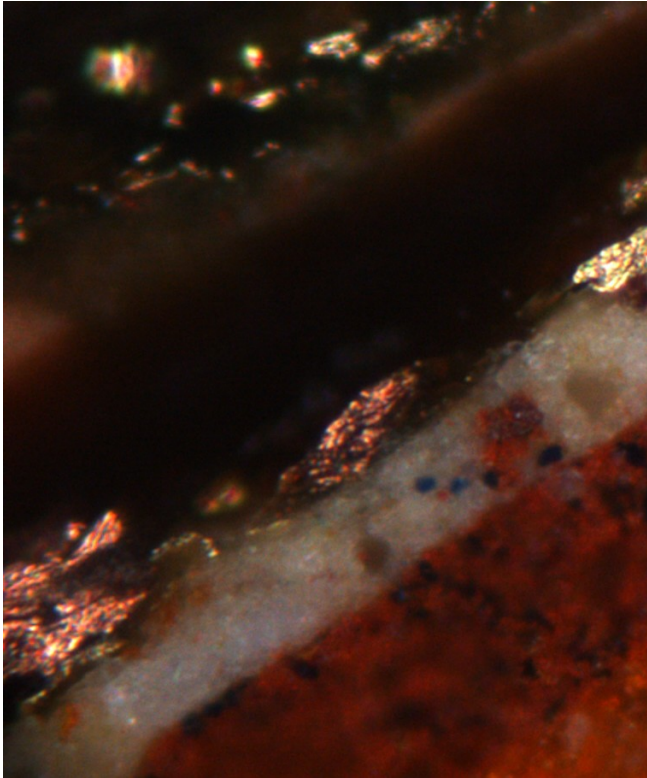


Figure 29 Gold leaf on pendant



Figure 30 Gold leaf applied to star recesses

GOLD PAINT – WITH GLAZES



GOLD PAINT – WITH GLAZES



Figure 31 Gold paint (with glazes) applied to foliate mouldings



Figure 32 Gold paint applied to balls and alternate twists



Figure 33 Gold paint (with glazes) applied to lower moulding and recesses

12. YELLOW – HIGHLIGHTS

Yellow paint – of different shades are used to highlight details – which could have been gilded.

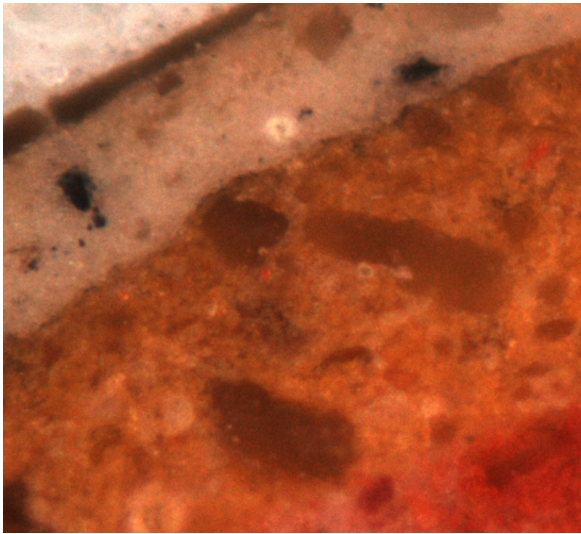


Figure 34 Yellow central flower - upper arcade



Figure 35 Yellow detail - Balls on architectural elements

13. BLACK

Black paint is used sparingly but creates a dramatic effect. It is applied to create depth to recesses, disguise structural elements which are not part of the decorative scheme, and add emphasis. Black is also used to glaze leaves, petals.

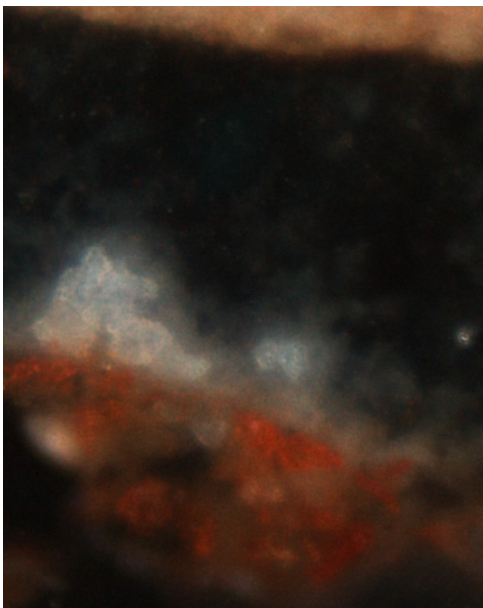


Figure 36 Structural supports- 1st Floor balustrade



Figure 37 Black on background



Figure 38 Black picking out on centre of flower - flooring

Location 1 – Digital Recreation of the Upper Arches



Location 1 – Digital Recreation of the Upper Arches



The main body colour is a modified version of the **MAROON** used at lower levels. **PINK** and **DARK BLUE** have been applied to the mouldings. The foliage and flowers have been painted with **CREAM** and **DARK GREEN** (glazed and modelled).



Location 2 - 1st Floor Balustrade & Metal Flooring



The main border has been painted in **MAROON** with the inner mouldings picked in with **DULL PINK**. The inner mouldings of the four central rings are picked out in **DARK GREEN**. The foliage is painted in **DARK GREEN**. The flowers are painted in **CREAM** and glazed. The stamens of the flowers and the leaves have been gilded.

The central disc has been solidly gilded **GOLD LEAF** – the coats of arms (it is assumed) have been painted in their correct heraldic



DIGITAL RECREATION NOT TO BE USED FOR COLOUR

Location 2 - 1st Floor Balustrade (Detail)



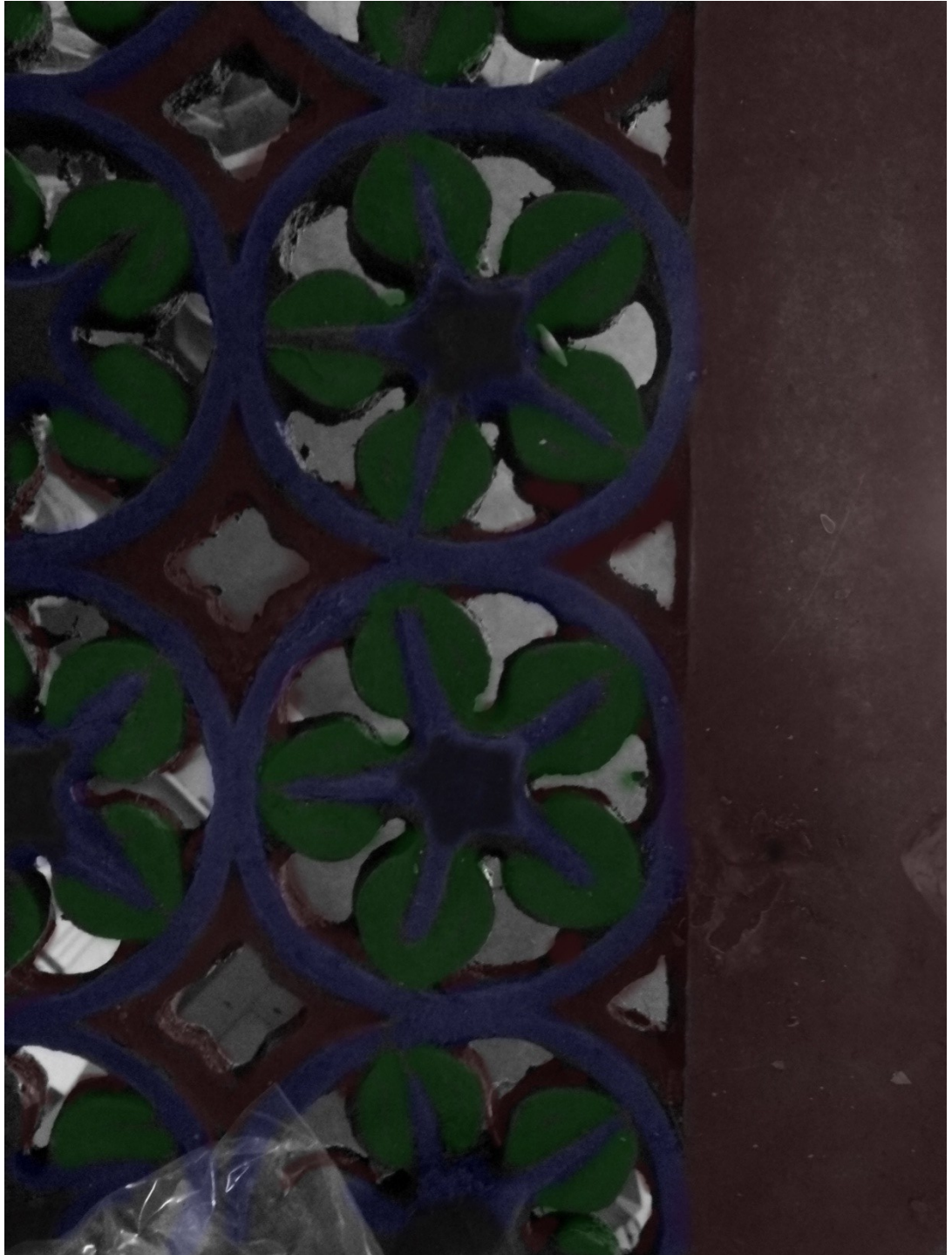
Location 2 - Secondary Panel & Metal Flooring

MAROON has been used for the decoration of the main frame with the inner face of the trefoil arch being picked in with DULL CREAM. The leaves have been painted in DARK GREEN and modelled in glazes and black. The upper flower has been gilded GOLD LEAF. The lower flowers are painted in PINK with the centres picked out in Yellow paint



Location 2 - 1st Floor Metal Flooring (Detail)

The metal floor has been painted in MAROON (dark). The outer rims and central stems of the petals are painted in DARK BLUE. The centre of each flower has been picked out in black.



Location 2 - Main Dividing Pillar

The main frame is painted in **MAROON**. The supporting horizontal bar is painted black – and so disappears from the scheme. The top abacus above each capitals is painted in **DARK BLUE**. The twisted shaft of the central column is also painted in **DARK BLUE**. The base and main mouldings of the central column are picked out in **DARK BLUE** and **GOLD LEAF**. The foliate capitals are painted in **DARKGREEN**. The lower leaves and bolts are also picked out in **DARK GREEN** with the centre of the bolts being painted in **YELLOW** paint.



Location 3 – Main Arcade Upper – Detail of Angle Oculus



The background is painted **BLUE** with the star recesses picked out with **GOLD LEAF** while the triangular recesses are picked out in **GOLD PAINT**. **MAROON** is applied to the inner face of the oculus and central tripartite moulding. The petals, stems and leaves are painted in naturalistic colours – **CREAM, LIGHT BROWN & DARK GREEN** with glazes, shadowing and highlights.

The border of the oculus is painted in an off-white.



DIGITAL RECREATION NOT TO BE USED FOR COLOUR MATCHING

Location 3 – Main Arcade Upper – Detail of Central Pendant



The main framework is painted in **MAROON** with the background of the main bed being painted in **BLUE**. The twisted edge moulding is picked out with **GOLD PAINT**. The small leaf moulding brackets are painted in **GOLD PAINT** with top element glazes in green. The large back ground panels are painted in **CREAM** with mouldings picked out in **BLUE**.

The central foliate moulding is painted in a range of **GREEN** and glazes. The lower pendant is decorated in **MAROON, PEACH, GOLD PAINT & GOLD LEAF**.



**DIGITAL RECREATION NOT TO BE USED
FOR COLOUR MATCHING**

Location 3 – Main Arcade Upper – Detail



The main vertical frame is painted **MAROON** with some mouldings picked out in **PINK**. The mouldings of the triangular recess are picked out in **CREAM** and **MAROON**. The inner foliate relief is painted in **GOLD PAINT**.



DIGITAL RECREATION NOT TO BE USED FOR COLOUR MATCHING

Location 3 – Main Arcade Upper – Spandrel



The moulding is picked out in PINK and **MAROON**. **MAROON** is applied to the central wheel. Raised spots are picked out in Yellow. The leaves, stress and petals are painted in **CREAM, LIGHT BROWN & GREENS** with the application of glazes and shading.



DIGITAL RECREATION NOT TO BE USED FOR COLOUR MATCHING

Location 3 – Main Arcade Upper – Bracket



The main framework is painted **MAROON** with selected elements picked out in **PINK** and **PEACH**. The leaves and petals are painted in **CREAM, LIGHT BROWN & GREENS** glazes and shaded.



Recommendations

Public Access

The main aim of the research project and the proposed recreation of the original scheme is to increase more public interest in Abbey Mills. The research has established that the original scheme was very elaborate and colourful. It has been demonstrated that the public is very interested in the process of archaeological research and the recreation of historic interiors. This project offers an opportunity to raise the profile of Abbey Mills, create an exhibition about the project and increase visitor numbers.

Recreation of the 1865-1868

Although the original scheme was created using traditional lead-based paints tinted with nineteenth-century pigments, it should be possible to **recreate a section of the original scheme using modern paint systems and so avoid health and safety issues surrounding the use of toxic materials**. This process would require close reference to the cross-sections of early paint layers, examination of the original pigmentation, the use of glazes, and shadowing of surface layers. On site trials would need to be carried out on site with an appointed specialist decorator to establish and refine the original colour palette, the use of glazes and modelling. Once the trials have been agreed the redecoration work may proceed

The digital reconstructions of the original scheme, included in this report, simply blocks out the placement of the main colours. The digital reconstructions cannot replicate the correct colour balances of the colours and the naturalistic modelling of the foliage. **The digital recreations should not be used for colour matching.**

Surface Preparation

The moulded detailing is obscured by the thick layers of paint layers. The more recent post WWII decorations contribute about 70% of the accumulated paint build-up. **The removal of the paint layers should be considered - in those areas to be redecorated – before the redecoration is carried out**. These trials and the final removal would be carried out by a specialist with experience of treating cast-iron. Various options for paint stripping may be considered; total removal of all paint layers; the retention of the primers and undercoats; or the retention of the three lead-based schemes and removal of the post WWII alkyd –resin decorations. Care must be taken to ensure the surface is neutralised before new paint is applied.

Sharing Research Findings

The results of this research could be used to create an exhibition focussing on the interior decoration within Abbey Mills Pumping Station. It is suggested that a video record of the research, paint stripping and redecoration is made during the works programme.

There will be a lot of media interest in the project.

It is also suggested that the innovative restoration project may be worthy of consideration for a conservation ward.

APPENDIX I

Cross-section List

Abbey Mills Pumping Station

Cross-section List

AM/1/	1	Base above floor
	2	Top of base
	3	Triangle junction
	4	Top of base (2)
	5	Top edge (3)
AM/2/	6	Side
	7	Top
	8	Side
	9	Base of ornate moulding (2)
AM/3/	10	Base of ornate moulding (3)
	11	Bottom edge of leaf(4)
AM/4/	12	Rib of petal
	13	Top of spine
	14	Neck
	15	Big moulding – bottom
	16	Big moulding – top
	AM/5/	17
18		Moulding with diamond relief (2)
19		Relief within recess
20		Edge of recess
23		Background to spots
24		Raised spots
AM/6/		11
	11*	??
	25	Ground of heart band
	26	Edge of heart recess

AM/7/	27	Inner relief of hearts
	32	Fluting
	36	Shaft

MAIN ARCADE RIGHT SPANDREL – DETAIL 1

AM/8/	220	Leaf relief
	221	Edge of leaf
	222	Edge of leaf inner
	224	Rim
	225	Bkgd to ball band (2)
AM/9/	226	Ball (2)
	227	Stem
	228	Leaf outer
	229	Leaf Inner
	230	Leaf spine
	231	Inner whorl
	232	Centre
	233	Outer leaf lower (2)
AM/10/	234	Stem (2)
	235	Lower
AM/11/	302	Inner rim
	303	Leaf
	304A	Outer of centre flower
	304B	Inner of flower (2)
	305A	Stem
	305B	Stem outer
	300	White (red beneath)
	301	White rim
	302	Rim inner
	303	
	306	Leaf
	307	Horizontal bar
	308	(2)

AM/12/	308A	Stem
	309	Join
	310	Bottom bulb (3)
	311B	Bridge (2)
	312B	
AM/13/	313B	Stem top
	314A	
	314B	
	315	Leaf
	316	Inner whorl
	317	
AM/14	318	Centre whorl (yellow)
	319	Lower leaf
	320	CORNER OF SPANDREL
	321	Edge – flat white border (2)
	322	
	323	White border inner
	324	Foliage top corner (gold) (2)
	325	Middle b. Leaf left
	326	Petal of flower (big bit in bag)
	327	Bottom big stem (2)
AM/16	328	Star and triangle area – flat (2)
	329	Inner top edge of triangle
	330	Background of triangle (2)
	331	Star background (Gold leaf!!) (2)

DETAIL 3 – TOP STRUT ABOVE CAPITALS

AM/17	259	Outer moulding
	260	Moulding (3)
	261A	Moulding leaf
	261B	Inner leaf

	262	Inner right
	263	Moulding right
	264	Main frame
	265	Main frame left
	266	Centre main strut
AM/18/	267	Leaf
	268	Lower
	269	Lower curve
	270	Lower flat
	271	Top (2)
	272	Lower
	273	Lower
	274	Lower
AM/19/	275	
	276	Middle edge – main b.
	276A	Inner
	277	Inner
	278	Inner
	279	Inner
	280	Outer
AM/20	281	Lower horizontal
	281A	Lower
	282	Lower
	283	Lower
	284	Triangle slope
	285	Base
	286	Base
	287	Base side
AM/21/	288	
	289	Top of capital flat
	290	Top moulding of capital

	291	Moulding flat (varnished)	
	292	Moulding – recess –gold powder (4)	
AM/22	293	Moulding – gold	
	294	Moulding recess	
	295	Moulding flat	
	296	Ornate foliate moulding of capital	
	297	Odds and sods of moulding	
AM/23	350	Petal gold	
	350A	Spine of petal	
	350B	Edge of petal	
	351	Stem	
	352	leaf	
	353	Lower stem	
AM/24	353A	Ball at end	
	354	Centre of lotus stem	
	355	Stem	
	356	Petal	
	367?	Leaves bottom	
AM/25	358	Top moulding	CAPITAL LOWER ACANTHUS MOULDING
	359	Moulding lower (2) gold	
	360	Gold leaf of lower flower	
	361	Top of stalk	
	362	Top of stalk	
	363	Ball at bottom	
	364	Rim around acanthus	
AM/26	365	Top of central flower	CAPITAL LOWER ACANTHUS MOULDING
	366	Background	
	367	Leaf middle right	
	368	Lower volute right	
	369	Frame of flower	
	370	Lower leaf right	

AM/27	371	Top roll moulding	TOP OF SHAFT BELOW ACANTHUS
	371A	Under-side of moulding	
	372	Lower flat	
	373	Main body	
	374A	Face	
	374	Inner face of side	

AM/28	375	Ball
	376	Moulding lower
	377	Inner recess (3)
	378	(2)

DETAIL 2 Pendant & Foliage above

AM/29	242	Point of pendant –gold leaf (2)
	243	Moulding lower – gold leaf
	244	Moulding
	245	Top moulding
	246	Under side (2)

AM/30	247	Big face
	248	Bkgd to ball
	249	Ball (3)
	250	Bkgd to twist of arch

AM/31	251	Border (2)
	251AA	Down face of arch (2)

Side Bracket 90 Degrees – 400 – 462

AM/32	400	Top moulding
	401	lower
	402	lower (2)
	403	lower
	404	lower
	405	lower

AM/33	406	Foliage
	407	Vertical bar
	408	Side
	409	Lower
	410	Leaf lower
	411	Bottom
AM/34	412	Spine
	413	
	414	
	415	Stem
	416	Flower outer
AM/35	417	Flower inner
	418	Flower middle
	419	Tendrill
	420	
AM/36	421	
	422	
	423	
	424	
Main Floral Moulding – Centre Arcade		
AM/37	330A	Tip of top leaf
	330B	Spine
	330C	Top leaf lobe right
	331A	Centre main stalk
	331B	Centre main stalk – edge right
	332B	Middle
AM/38	333A	Side Flower right petal
	333B	Side petal
	333C	Side petal
	334	Big petal edge right
	335	Big lower leaf – top edge right
	336	Stalk of little flower right
	337	Big leaf lower right

AM/39	338	Cusp leaf around stalk
	339A	Lower stalk middle
	339B	Lower stalk
	340	Big leaf left lower
	341	Big leaf left – inner whorl
	342	Stalk lower
AM/40	343	Base leaf right inner recess
	344	Base leaf right – middle recess
	345	Lowest leaf –top right
	346	Lowest leaf right – lowest whorl
	347	Top – little oval motif
	348	Side
	349	Inner
	350	Bottom
	351	Background

Upper Crossing – 425 - 436

AM/41	425	Top
	426	Diamond
	427	Underside of diamond
	428	Flat
AM/42	429	Little moulding
	430	Flat
	431	Big flat (2)
	432	
	434	
	435	Flat
AM/43	433**	Inner side of circle (3)
	437	
	438	
	439	
	440	

AM/44	441
	442
	443 (2)
	444 (2)
	445
	446

AM/45	449A (2)
	449B (2)
	449C
	449E
	449F

Detailing of main foliage – central arch

AM/46	379A	White top
	379B	Stalk (2)
	380	Middle element (2)
	381	Volute right
	382	Base (triangle)
	383	Lower rim

AM/47	384A	Volute right – inner
	384B	Moulding below
	385	Moulding lower (2)
	386	Moulding lower
	387	Lower moulding
	388	Gold leaf – background to balls

AM/48	389	Gold leaf – background to balls lower
	390	Ball – gold leaf
	391	Lower flat
	392	Neck
	393	Rim below neck

Foliage left of circle 450 -455

AM/49	450	Edge of leaf
	451	Stem
	452	Leaf
	453	Stem
	454	Tendrill
	455	Frame edge

Three Petal Motif in lower corner of spandrel

AM/50	456	Frame
	457	Top leaf
	458	Stem
	459	Petal side
	460	Edge of petal (2)
	461	Outer centre (2)
	462	Centre

Plaster frieze

AM/51	468	Grapes
	469	Leaf
	470	Background

Top of Arcade Panel – Samples 201 - 256

AM/52	201	Panel bed – top of arcade
	202	Moulding lower – panel frame
	202B	Moulding side – panel frame
	203	Flat
	204A	Edge
	204	Bolt
AM/53	205	Moulding (2)
	206	Moulding
	207	Background – flat
	208 -212	– Little Ewok samples elsewhere
	213	Moulding
	214A	Moulding

	214B	Moulding
	215	Flat of frame – main colour
	216	Star Edge
AM/54	217	Star centre
	218A	Edge of green and white – triangle corner
	219	Edge Moulding of triangle
	220 – 235	Detailing of moulding in centre
AM/55	236	Flat of frame lower – main colour
	237	Edge of star
	238	Centre of star
	239	Edge of face
	239A	Underside
	240	Twist of moulding
	241	Twist of moulding
AM/56	252	Main Foliage motif – centre (2)
	253	Bottom left
	254	Top
	255	Moulding right
	256	Moulding right top

First Floor – Ornate Balustrade

Main Pier

AM/57	501	Top
	502	small moulding
	503	Capital background
	504	Capital foliage top
	505	Capital foliage bottom
	506	Top of shaft moulding
	507	Moulding lower
	508	Shaft – twist
	509	Shaft – twist
AM/58	510	Base of shaft
	511	Base knuckle

	512	Moulding small
	513	Big base
	514	Background to leaves
	515	Leaves
	516	Leaves bottom
	517	Base small moulding
	518	Moulding
	519	Moulding
AM/59	520	Big base
	521	Top of plinth
	522	Diamond curve
	523	side flat
	524	Bottom
	525	Bottom – on floor
	526	Top of slim vertical
	527	Moulding
	528	Background to leaves
	529	Leaf
AM/60	530	Moulding
	531	Shaft
	532	Knuckle
	533	Diamond frame
	534	Inner
	535	Shaft lower
	536	Curved face
	537	Bottom of element
	538	Top rail – beneath wooden rail
	539	Inner whorl
AM/61	540A	Leaves
	541	Arch frame
	542	Inner stem
	543	Whorl leaf

	544	Petal
	545	Centre outer
	546	Centre
	547	Lower stem
	548	Lower leaf
	549	Lower rail
Central Panel		
AM/62	550	Top
	551	Top lower
	552	Circle
	553	Main outer circle
	554	inner
	555	Small circle top
	556	Top stamen
	557	Stamen right
	558	Inner face flower
	559	petal
AM/63	560	Base of flower stripped
	562	Lower leaf centre
	563	Leaf right
	564	Little circle lower
	565	Diagonal flower - top
	566	- leaf middle
	567	Leaf inner
	568	stem
	569	Inner rim
	570	Centre background
AM/64	571	Corner of heraldic badge
	572	Outer rim – main circle
	572A	Background coat of arms
AM/65	573	N/T
	574	Arch rim
	575	Pineapple

	576	Leaf
	577	Neck
	578	Lower moulding
	579	Stem
	580	Leaf
	581	Arch frame
	582	Leaf
	583	Petal outer
	584	Petal inner
AM/66	585	Stem
	586	Whorl
	587	Lower whorl
	588	Bottom stem
	589	Curved moulding
	590	Bottom of centre stem
	591	Lower horizontal
	592	Edge floor
AM/67	593	Rim of grill pattern (2)
	594	Petal (2)
	595	Centre (2)
AM/68	B21	Background to big diamond drum
	B23	Background to spots
	B24	Raised spots
	B29	Moulding beneath fluting
	B30	Rim
AM/69	B31	Edge below fluting
	B32	Fluting
	B34	Moulding above fluting
	B35	Inner recess beneath shaft
	B36	Shaft