

ANDREA KIRKHAM CONSERVATION LTD

Conservator of Wall Paintings and Polychrome Decoration

No 25 (The Alma) and No 26 Kings Head St Harwich, Essex



Harwich Architectural Survey: Paint Report

May 2020

25 (The Alma) & 26 Kings Head St, Harwich

Paint Report (Harwich Architectural Survey Project)

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1: INTRODUCTION AND SCOPE

This report has been carried out as part of the Harwich Architectural Survey, a Lottery Funded project. Following the first architectural visit with Nick May (owner), Brenda and Elphin Watkin, Richard Oxborrow and team members, it was apparent that substantial fragments of early painted decoration survive on the first floor of No 25, the ground floor of No 26 and *ex-situ* timbers in the attic of the south crosswing. A red and white scheme survives on the room face of a stair partition, first floor (not before the C18th). A separate condition report has also been provided for the ground floor schemes in No 26 (August 2019).

The purpose of the sampling was two-fold:

- 1) to identify the pigments and materials
- 2) to sequence the schemes if possible, enhancing the buildings report already provided by David and Barbara Martin

Some rooms retain large areas of C16th and C17th painted decoration. In others, the evidence is fragmentary and paint analysis is essential to assess the schemes and the way colour is being used. Paint analysis not only identifies the pigments employed, it almost invariably reveals a more complex sequence of schemes than is immediately visible. Much of the evidence suggests the presence of plain schemes,¹ a type of decoration once common but is typically neglected and often destroyed during building work. The ground floor of No 26 retains a well-preserved section of imitation panelling carried on lath and plaster, C17th (?second quarter).

Paint samples were taken by Andrea Kirkham and sent to Catherine Hassall for analysis.

2: BUILDING DEVELOPMENT: BRIEF OVERVIEW OF THE HALL RANGE AND SOUTH CROSSWING

The building is described in detail by David and Barbara Martin. Selected short notes are taken from their report to provide context. The focus is the King's Head St frontage which consists of a hall range (No 25) and north (No 24) and south (No 26) crosswings. The construction of the south crosswing in the closing years of the C15th marks a rise in the fortunes of the building's owner.² The hall is a later insertion (The Alma) on the same footprint as the medieval hall.³

The new late C15th south crosswing (No 26) at the low end of the hall consists of two bays, heated by a chimney against its eastern (rear) wall with some form of narrow stair range/turret occupying the area between the chimney and rear doorway of the hall.⁴ The chamber was open to the roof. It is suggested that the ground floor two-bay room did not

¹ A type of scheme which is often one colour on the timbers with white infill panels. There are many variations in colour use and typology.

² D&B Martin, 24, 25 (The Alma), 26 King's Head St, Harwich, Essex: An Archaeological Interpretive Survey (2019), p. 2. The north crosswing is in separate occupation and the earliest surviving part of the building, much altered and unlisted.

³ Martin, p. 6

⁴ Martin, p. 9

function as a service end but served a mercantile use. The doorway in the north wall provided access into the hall.⁵

In the early C16th, the hall range was rebuilt with a front jetty and oriel windows. The range consists of a ground floor hall and a hall chamber with a ceiling. The roof space was not used.⁶ The crossbeams and tie beams of the three trusses are elaborately moulded. The joists of the hall chamber were designed to carry a flush plaster ceiling.⁷ A two flue chimney was inserted to heat the new hall and hall chamber. The 'porch' at the southern end was constructed perhaps at the same time as the hall or a little later (early/mid C16th).

3: SUMMARY DESCRIPTION AND RESULTS OF THE ANALYSIS

Paint samples were taken from the early C16th first floor hall chamber of No 25 (The Alma), the hall chamber now subdivided into a landing and bedrooms (Nos 1&3). Samples were taken from the ground and first floors and the attic of No 26 (south crosswing). Painted imitation panelling was recently discovered during stripping out on the ground floor. Fragments exist in the front gable and a red and white scheme on the first floor is a rare survival (not before the C18th).

3.1: Hall chamber (The Alma) [Plates 30-36]

It has already been noted that the hall chamber is now subdivided into a landing and bedrooms. Samples were taken from the moulded ceiling beams, above the window and a post in the bedrooms No 1 & No 3 and the landing. Despite stripping enough remnants remain to indicate colour use over time. Green is abundant (though battered) and fragments also survive for later layers. Samples from the Alma are labeled A1-A6. Sample A6 is from a vertical timber, the post, in bedroom 3. A1 is above the window in room 1 and the rest are associated with the ceiling.

It is never straightforward dating schemes that are so fragmentary. While green is found in early C16th contexts, especially in high status buildings, contextual evidence from research across a range of vernacular buildings indicates that a late C16th or C17th date is more likely. This theory is borne out by paint analysis which suggests that the first green paint was applied to stained dark wood, not light new oak. A possible date for the first green might be late C16th given the status of the room and building. A green paint exists in the parlour chamber of 14 St Austin's Lane, perhaps about the same date.

The most detailed sequence of schemes came from the ceiling beams which was probably green timbers with white plaster. There is no information available for studs and the treatment of the wall timbers is largely unknown, at present. Paint on the posts in rooms 1 & 3 indicate that at least some wall timbers were painted to coordinate with the ceiling. Unfortunately, the level of paint stripping means that the layer structure does not survive equally in all areas.

⁵ Martin, p. 13

⁶ Martin, p. 18

⁷ Martin, p. 26

The next two schemes consist of remnants of black and a reddish brown on top of a lime plaster. These have only been found on the ceiling beams and it is assumed that these are the remnants of plain schemes based on evidence from other sites in Essex and Suffolk. Given the sequence of layers, the black and the reddish-brown are almost certainly C17th, followed by a series of C18th off whites. Black is also seen at 13 St Austin's Lane and at Christopher Jones' House (visual analysis only).

One point to note is that the brown found on the landing ceiling is different to that in the bedroom and it is tempting to suggest that the hallchamber may have been divided into a landing/passage and a main room (The earlier black was found in both spaces), perhaps second half of the C17th/c.1700 ?

A return to colour occurs in the early C19th with a sequence of blues and greens. French Ultramarine blue is a new pigment in the C19th and must have been applied after 1828. Patrick Baty suggests that the pigment came into greater use by the middle of the C19th.⁸ The use of blue from the second quarter of the C19th can also be seen at 13 St Austin's Lane in the ground floor living room.

3.2: No 26: Southern crosswing

Ground floor front room, north wall.

- 3.2.1: Ground floor: 'Florets' [Plates 15-17]

It is thought that there are remains of yellow on the western side of the blocked doorway in the eastern bay of the north wall. Unfortunately, the paint analysis did not pick up any yellow, so it may prove to have been an optical effect. Forthcoming conservation work will allow another inspection. The red florets were a pigment mixture and were a brighter red originally.

- 3.2.2: Ground floor: Blue scheme [Plates 18-21]

Remains of blue on the headbeam overlapped onto the hair plaster of the former lath and plaster ceiling (probably C17th?). How the rest of the wall was treated is unknown at this stage, it is unevenly and roughly applied but clearly extended the full length of the wall, across both bays. The analysis indicates an organic blue – probably indigo, typical for this type of scheme in the C17th. Was this scheme seen with some form of textile wallcovering?

- 3.2.3: Ground floor: Imitation panelling scheme [Plates 2-13]

There is one section of C17th imitation panelling at the western end of the north wall (approx 55" w x 59" h). The painting respects the position of the jetty which was later underbuilt. The scheme is carried on a lath and hair plaster support. The surface has a granular textured finish. The back of fragments of plaster can be seen at the western end of the north wall, indicating that the other side of the wall was lath and plastered. At the right

⁸ P Baty, *The Anatomy of Colour* (Thames & Hudson, 2017), p. 114.

side of the imitation panelling, the upper three quarters of lath butt against the side of the stud. The lower ones overlap onto the stud.

The scheme consists of three tiers of panels, each consisting of 3 complete panels + 1 incomplete panel wide. The stiles are yellow/buff with panels in a bold, vigorous grained effect with yellow/buff and dark purplish brown using red and yellow iron oxides.

The arrangement of the scheme is curious and seems to have been part of a decorative ensemble, perhaps with fixed seating/real panelling? The top edge of the painted plaster stops about 21½" down from the head beam. This was always intended so painted plaster abutted some form of fixed furnishing such as frieze paneling. Unpainted plaster at the right (+/- 7½" wide) and along the bottom (+/- 16" high from the sill) suggests that the imitation panelling might have been part of a mixed media decorative ensemble (?). It seems very unlikely that the white areas would have been visible. It is hoped that this can all be clarified during conservation work when more detailed analysis of the decorative scheme can be carried out.

- 3.2.4: Ground floor: Later schemes [Plates 37-38]

Only one sample was taken from the later build at the east end which shows a sequence of whites, a yellow distemper and a later blue. The yellow distemper housepaint is seen in Suffolk and Essex vernacular houses, +/- c.1800. The blue pigment is Prussian blue so it could be a little earlier in the C19th than the blues elsewhere in Harwich.

- 3.2.5: First floor red and white scheme [Plates 24-29]

This scheme is an unusual survival that cannot predate the installation of the stairs in the C18th. It is predominantly white with red borders – not unlike the plain schemes of an earlier period. The red also frames a window that allowed borrowed light for the stairs. The partition is constructed of horizontal boards nailed to thin section timbers. The flush face is onto the stairwell, apparently unpainted and the reverse side facing into the room is painted. It is worth documenting this scheme in more detail before being protected behind a false lining.

- 3.2.5: Ex-situ painted timbers in the front gable of the attic [Plates 22-23]

Three paint samples were taken from *ex-situ* timbers in the front gable. These are probably remnants of plain schemes. While these paint schemes are impossible to date with certainty, they are most likely to be late C16th and early C17th on contextual grounds.

Because they are out of context they are also difficult to interpret. The earliest scheme is a light yellow (assumed plain scheme), followed by black (assumed plain scheme) in two samples and then the red. These were later covered with limewashes.

4: CONCLUSION

25 & 26 Kings Head St retains a rich sequence of painted decoration (some of which is fragmentary). Even though some of the evidence is fragmentary, it tells a story of changing taste and fashion. It should be remembered that this is a survey of surviving areas of painted decoration – some rooms have not been investigated because of access). The earliest surviving painted decoration is probably the green scheme in the hallchamber of No 25. The florets in No 26 are difficult to date – it is assumed that they are C16th (there is no context available). Then there is a rich sequence of decoration from the C17th onwards, including the imitation panelling scheme. All should be retained.

Dr Andrea Kirkham ACR

24th May 2020



Plate 1

Left: exterior view of the Nos 25 (Alma) and 26 Kings Head St, Harwich. Paintings located on the north wall of the ground floor room

Plate 2

Below: view of the north wall with the remains of at least 3 decorative schemes from C16th and C17th.

(Photos © A Kirkham 2019)



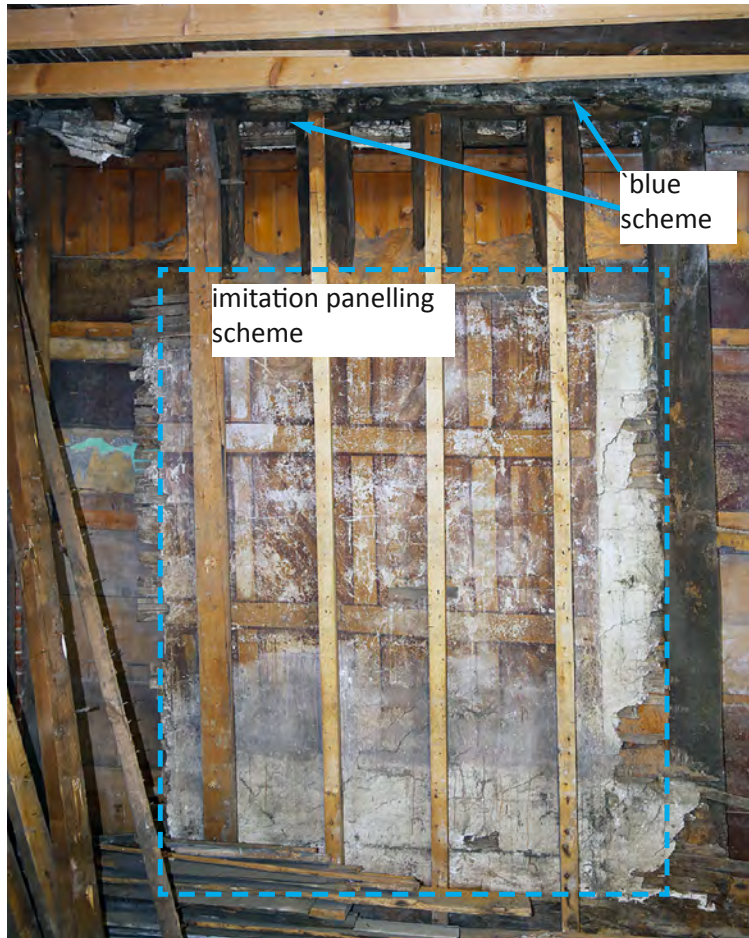


Plate 3

Left: view of the imitation panelling

Plate 4

Top right: detail of the top edge of the painted plaster

Plate 5

Bottom right: detail showing the texture of the unpainted section of plaster

(All photos © Kirkham 2019)



Plate 6

Below: detail of the imitation panelling showing the surface texture and paint losses

Plate 7

Right: detail of the imitation panelling scheme

(Photos © Kirkham 2019)

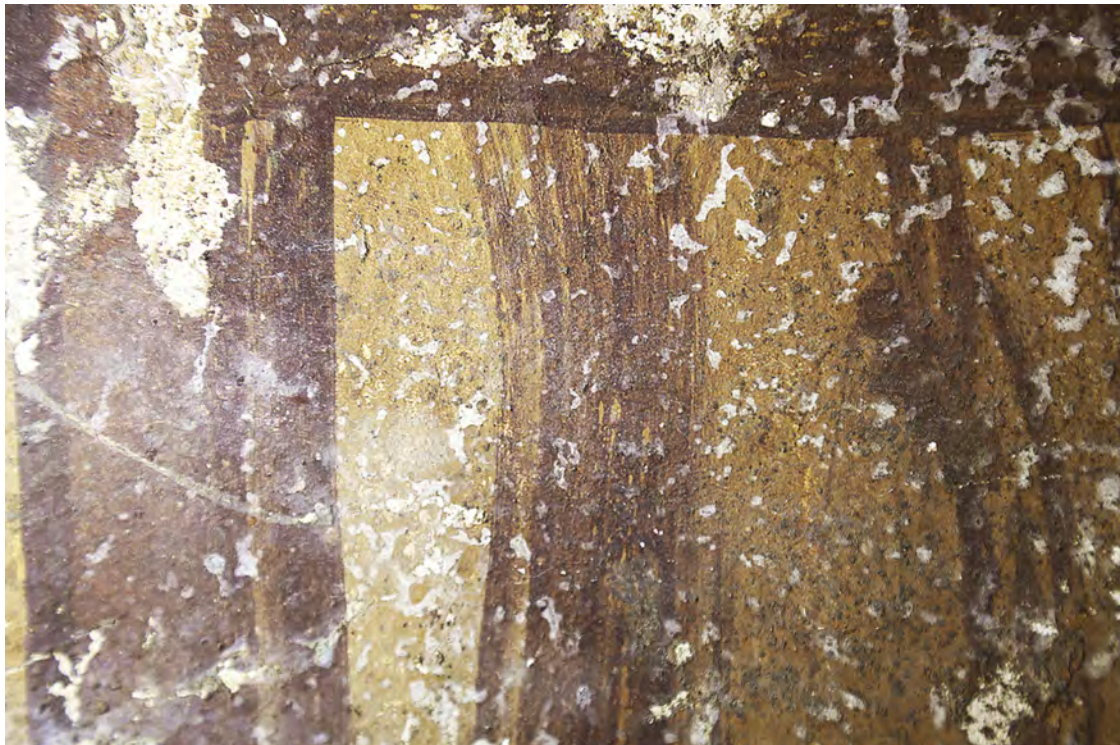




Plate 8

Left: detail top left corner (towards window)

Plate 9

*Above: view of the top tier, right side panels, showing the unpainted plaster at the right
(All photos © Kirkham 2019)*



Plate 10

Far left: view of the painting, note the laths at the right edge: upper ones abut the side of the stud; the lower ones overlap onto the timber

Plate 11

Left: detail of the lath and plaster in the upper right corner

(All photos © Kirkham 2019)



Plate 12

Left: view of the top edge of the imitation panelling scheme showing the damaged top right corner

Plate 13

Bottom left: view showing the unpainted plaster along the bottom of the scheme and bottom of scheme obscured by a whitish 'veil'
(All photos © Kirkham 2019)



Plate 14

Left: scratched marks on the unpainted area of plaster at the right of the panelling scheme
(Photo © Kirkham 2019)



Plate 15

Far left: view of the blocked door with small red florets on the doorframe

Plate 16

Left: detail showing of possible yellow and small red florets

Plate 17

*Above: nail, perhaps a fixing for a textile
(All photos © Kikrham 2019)*



Plate 18

Left: detail above the panelling scheme showing the remains of blue paint

Plate 19

Bottom left: view of the beam at the eastern end of the north wall. There are remains of the 'blue' scheme with what appears to be paint overlapping onto the ceiling plaster (All photos © Kirkham 2019)





Plate 20

Left: beam with 'blue' paint

Plate 21

Below: beam with 'blue' paint associated with a lath and plaster ceiling

(All photos © Kirkham 2019)





No 26, South Crosswing, Attic

Plate 22

Left: detail of a painted stud showing the paint layers

Plate 23

*Above: view of the front gable, attic, south crosswing showing the location of two *ex-situ* painted timbers*

(All photos © A Kirkham 2020)



No 26, South Crosswing, first floor

Plate 24

Left: view of the C18th stairs with horizontal boarding on the partition. The other side is painted.

Plate 25

*Above: view towards the stair and the room containing the painted partition
(All photos © A Kirkham 2020)*



No 26, South Crosswing, first floor

Plate 26

Above: detail to the left of the partition. Remains of the C18th scheme survive under later layers

Plate 27

*Right: the painted partition which is mostly white with red borders
(All photos © A Kirkham (2020))*





No 26, South Crosswing, first floor

Plate 28

Above: detail of the boarded partition showing the red borders. There is some overlap of a later red in the top right corner

Plate 29

Right: detail of the border by the window. Later white layers are flaking off
(All photos © A Kirkham 2020)





**No 25 (The Alma)
Room 1**

Green is clearly visible on timbers that have been less stripped. There is green from different periods of decoration. The earliest green is probably late C16th.

Plate 30

Left: detail of the post to the left of the blocked window (off photo)

Plate 31

Top right: view of the front wall

Plate 32

Bottom right: detail of the green above the window
(All photos © A Kirkham 2020)





No 25 (The Alma)
Room 1

Plate 33
Above: detail of the moulded ceiling beam

Plate 34
Right: view of the moulded ceiling beam
(All photos © A Kirkham 2020)





No 25 (The Alma)
Landing and Room 3

Plate 35

Above: detail of a ceiling beam now located on the landing

Plate 36

Right: detail of the post in room 3, showing traces of paint
(All photos © A Kirkham 2020)

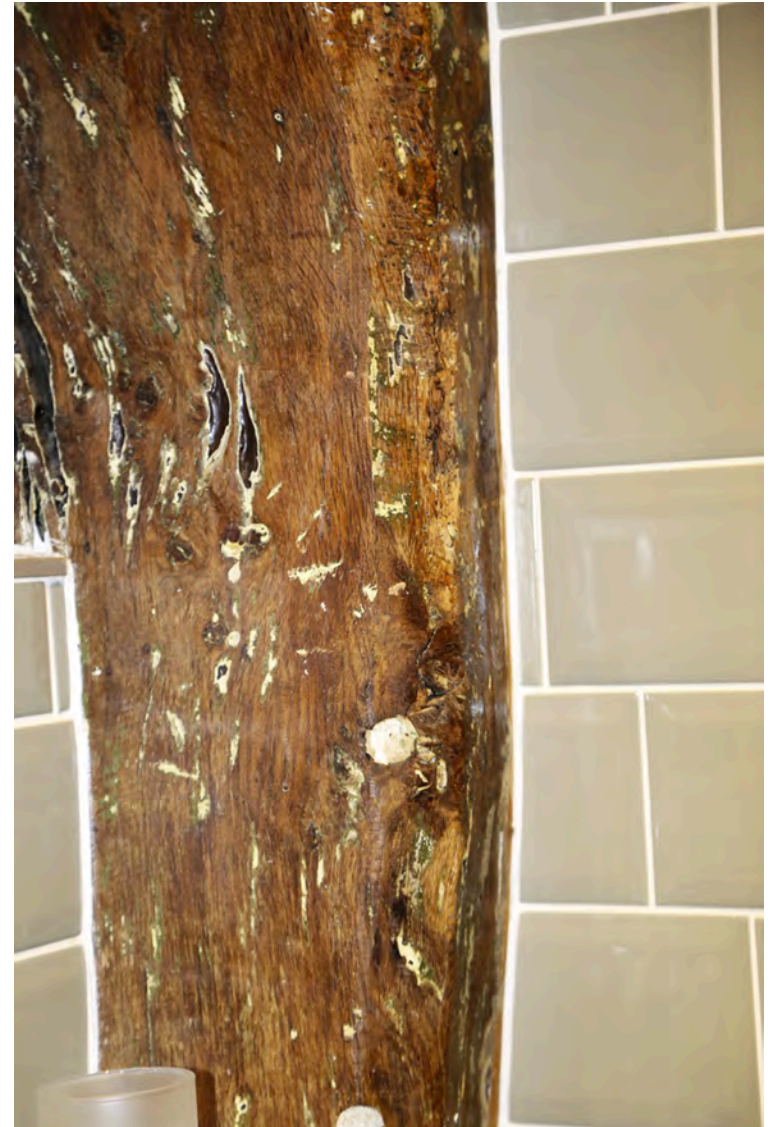




Plate 37

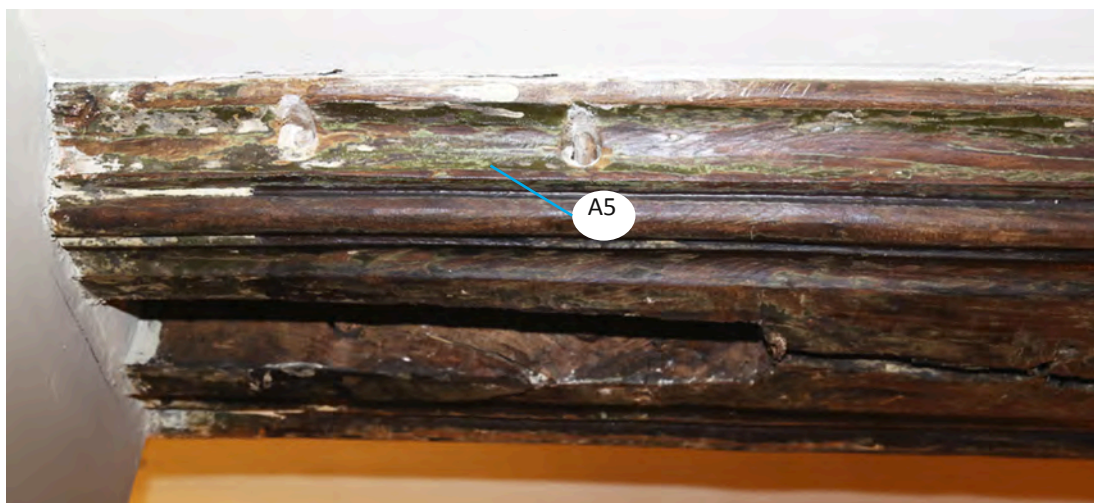
Left: detail, ground floor No 26, behind the stair, showing later yellow and blue schemes

Plate 38

*Above: detail of the same area
(All photos © A Kirkham 2020)*



Samples A1-A4 from room, No 25 (The Alma)



Sample A5: Landing, No 25 (The Alma)



Sample A6: Post, room 3, No 25 (The Alma)



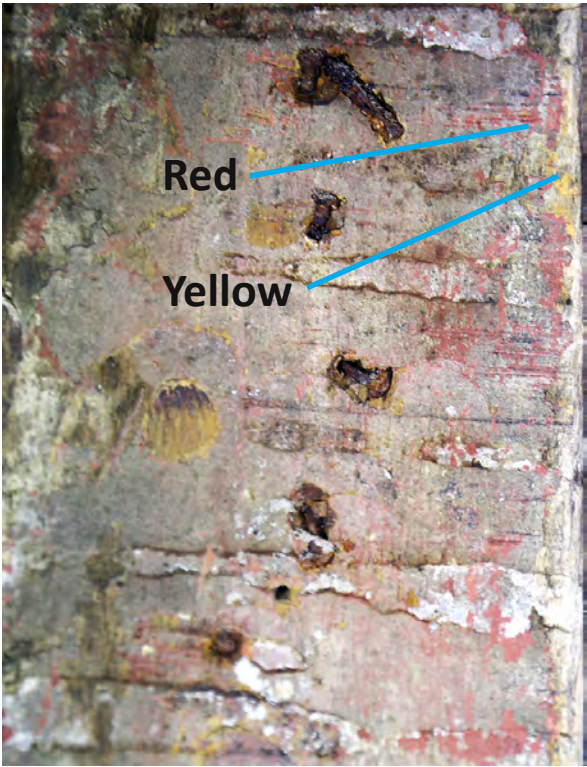
Samples N1-N12 from the ground floor, north wall of No 26



Samples N12b-N15 from the ground floor, north wall No 26

Sample N16, north wall, behind the stairs, ground floor No 26







25 & 26 KINGS HEAD STREET

Harwich, Essex

Paint samples taken by Andrea Kirkham

25, Kings Head St

- A1 room 1 – green to left of window
- A2-4 room 1 – ceiling beam
- A5 landing ceiling beam
- A6 room 2 – green on post

26, Kings Head St

- N1-5 imitation panelling
- N6 exposed stud above panelling
- N7-8 beam above panelling – ‘blue’
- N9-12 door frame
- N12b beam above ‘blue’
- N13-15 rightmost stud
- N16 blue over yellow
- N17-19 attic – ex situ timber
- N20-21 first floor – staircase partition

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

25 KING’S HEAD STREET - THE ALMA

The timber in this building may have originally been unpainted, because the surface of the wood is stained and dark [A1, p.5].

Between the wood and the green oil paint, which was found in all six of the samples, is a calcium carbonate layer which is likely to have been a limewash. In Sample A5 [p.6] taken from the Landing, we can see that the limewash under the green has a surface coating of dirt.

Green paint scheme

The green is a copper green based on verdigris and lead white. It was built up in three layers with paler green layers as undercoats [see A5, p.6]. In the topmost layer, as well as verdigris particles, there is some copper green that has been dissolved, as well as some iron oxide yellow and this layer must have acted as a glaze.

In A2 [p.5] we can see thick surface dirt, and the green is likely to have been in place a long time.

Later paint schemes in Room 1

In Samples A2 and A3 the green was followed by a layer of lime plaster so repairs may have been carried out to the ceiling. When the samples were taken this layer was seen as a buff colour.

The later sequence of at least thirteen lots of house paint were only present in Samples 2 & 4

- 1 Following the layer of plaster the beam was painted a reddish brown. The paint was applied in two layers: a dark brown based on pure umber, followed by a reddish brown mixed from red/brown iron oxide and a small amount of lead white [see detail p.6].
- 2-7 Six lots of cream, or buff-coloured, oil paint all based on lead white and varying amounts of iron oxide and carbon black.
- 8 A pale blue tinted with a few particles of French ultramarine blue must have been applied after 1828 [see detail p.6].
- 9-11 Three pale green schemes, two of which contain some chrome yellow
- 12-13 Two more blue schemes, the first tinted with ultramarine, the second with Prussian blue.

The paints all contain lead white and so pre-date the Second World War.

Later paint schemes on the Landing beam [A5]

The green was followed by a coat of plaster and then the beam was painted first black and then dark brown. The brown was not the same as the red/brown used in Room 1.

Later paint schemes on the post in Room 3 [A6]

The fragments in this sample just show limewash over the green.

26 KING'S HEAD STREET

Imitation panelling [N1-N4]

A white limewash ground built up in several thin layers was applied to the plaster.

A yellow ground based on ochres was applied in quite a thick layer, and then the panelling was depicted with shades of brown brushed thinly over the top [p.7].

No lead white was involved in the mixtures and the medium could have been aqueous.

Sample N4 came from an area with white over the background colour. The fragments showed a thin layer of limewash over the yellow. [The cross-section was not photographed].

Sample N6 was taken from the stud above the panelling. The cross-sections shows a crust of black dirt over loose grey/black dirt layers. Some lumps of yellow ochre are caught up in the dirt, but no layer of paint [p.8].

Blue paint on beam above panelling [N7, N8 & N12b]

The three samples all showed the same two layers: a buff-coloured limewash tinted with ochre and some charcoal black, followed by a blue limewash tinted with an organic blue pigment [p.8].

The blue could be indigo, but for certain identification, instrumental organic analysis would have to be carried out.

Doorframe [N9, N10, N11 & N12]

No yellow layer was found in the samples.

The red used for the florets was a mixture of red lake and some red lead particles [p.9].

The fragments were too small and dark to be photographed successfully, but in Sample N10 it was possible to see that there was a thin layer of black over the red

Rightmost stud [N13, N14 & N15]

No coloured layer was found in the samples.

A coating of dirt was present in all of them. In Sample N15 [p.9] the cross-section shows a lump of red lead caught up in the dirt layer, but the surface of the wood has no paint layer on it.

Circa 1800 plaster [N16]

The cross-section made from sample N16 [p.10] shows plaster with white limewashes [or distempers] on the top, followed by a yellow distemper tinted with yellow iron oxide.

The yellow was followed by two lots of buff or cream coloured oil paint based on lead white, and finally by two lots of blue distemper tinted with Prussian blue.

Attic ex situ timbers [N17, N18 & N19]

In all three samples the first layer was a light yellow based on pure yellow iron oxide.

In Samples N17 [p.10] and N19 [p.11] the yellow was followed by a coat of pure carbon black. In Sample N18, in place of the black the cross-section shows two coats of dirt-blackened limewash.

The next coating was a dark red which was present in all three samples. It was applied in two layers: a thick undercoat of red iron oxide, chalk and a few particles of red lead, followed by a thin top coat of solid red iron oxide.

White limewash was found over the red in Samples N17 and N18.

Staircase partition [N20 & N21]

The dark red visible today on the partition is a layer of pure red iron oxide. The density of the layer suggests it could be in an oil medium.

Sample N20 [p.12]. Underneath the dark red are at least ten layers of white limewash. Between two of the earliest of those white limewashes is a thin line of bright red paint. The red was built up in two layers: a pink undercoat of lead white and red ochre, followed by a top coat of pure red ochre. The layers are unusual for house paint and the red may have been a loose paint flake from wall paper.

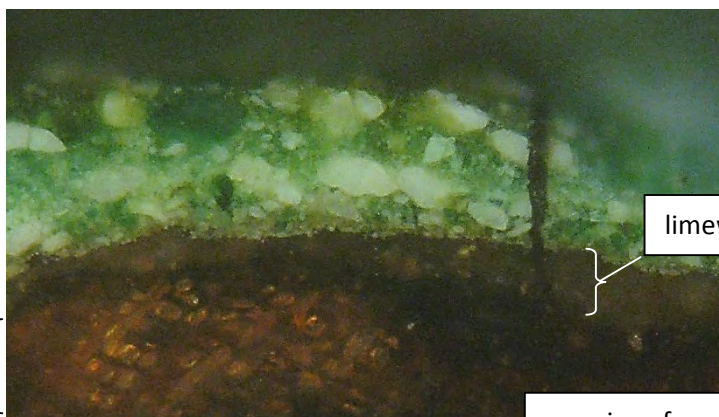
Sample N21 [p.12]. Underneath the dark red the cross-section shows a few of the white limewashes seen in Sample N20, resting on a piece of lining paper.

SAMPLE A1

Room 1 green to left of window

Between the copper green
& the wood is a layer of
limewash, or smear of plaster

wood with blackened
surface



limewash?

SAMPLE A2

Alma - Room 1 ceiling beam
green and buff

black

skim of plaster

copper green



remains of same
red/brown as seen
in A4 below

SAMPLE A4

Room 1 ceiling beam

layers containing
C19th pigments [see p.4]

six buff or cream-
coloured house paints

the red is in two layers so
is not a primer [see next page]



Detail of red paint

red iron oxide
+ lead white

undercoat of
brown iron oxide



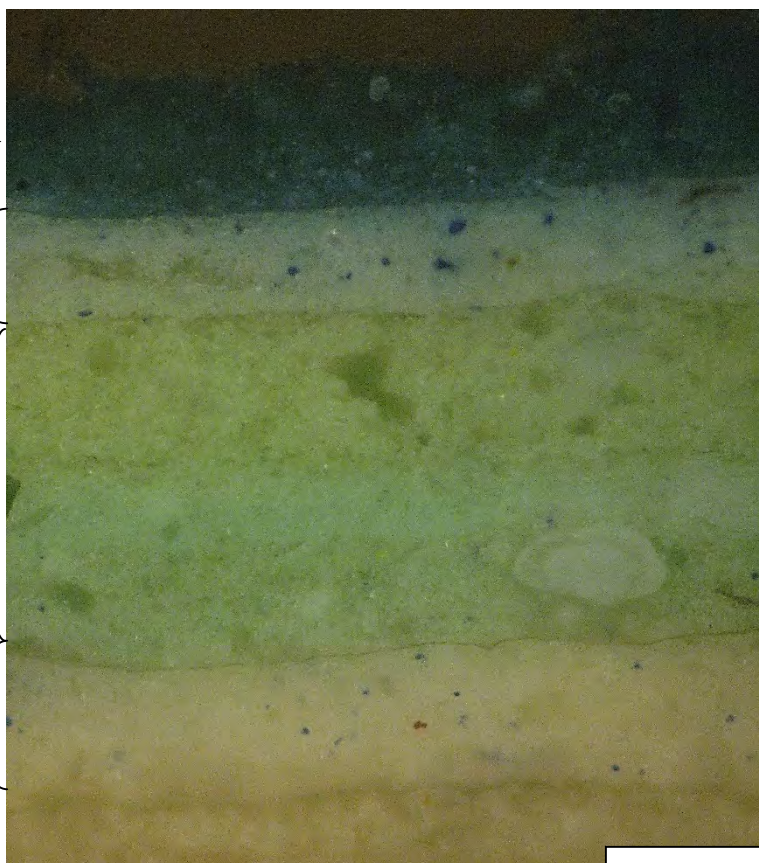
Detail of the C19th layers

Prussian blue

blue contains
ultramarine

greens contain
chrome yellow

pale blue contains
ultramarine



dark brown
over black

SAMPLE A5

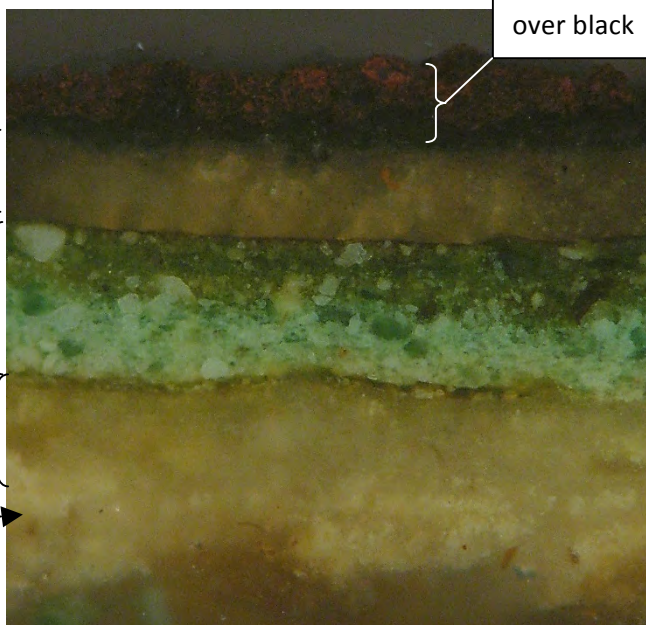
Landing ceiling beam

skim of plaster

copper green

dirt-stained limewash

plaster



SAMPLE A6

Room 3 – post

The copper green layers
found in A1, A2, A3 & A5,
sandwiched between
layers of limewash
[?or plaster]

**SAMPLE N1**

Imitation panelling

The white limewash ground
built up in many thin layers

**SAMPLE N2**

Imitation panelling

With thin layer of dark
brown over the yellow
ground layer

Detail of the yellow

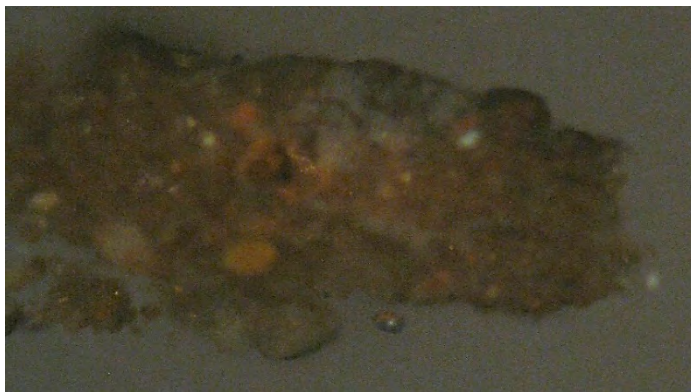
Showing that it is a mix
of red and yellow iron
oxides



SAMPLE N6

Stud above imitation panelling

The layer is mostly dirt
but particles of yellow
iron oxide are caught
up in it.

**SAMPLE N8**

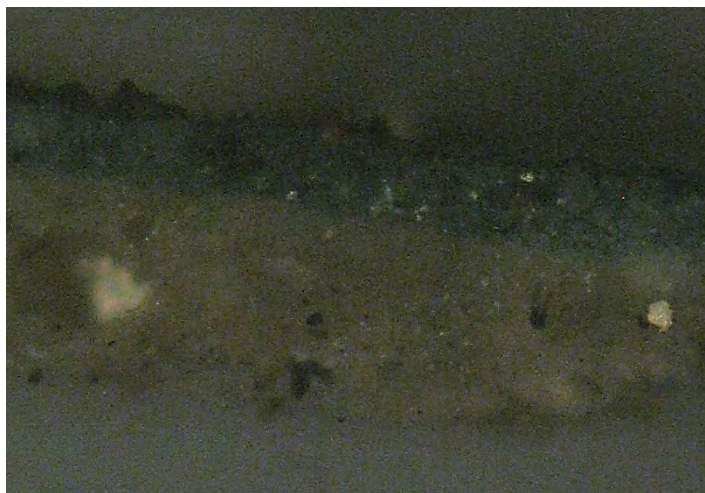
'Blue' on beam above panelling

Note – this blue proved impossible
to photograph clearly

**SAMPLE N12b**

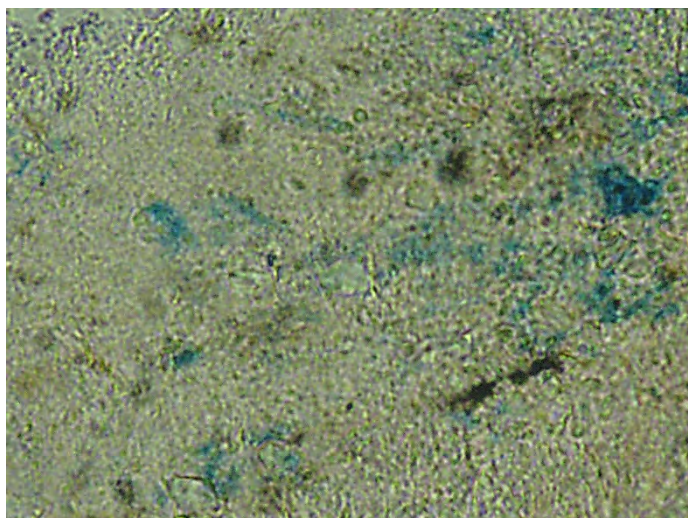
Beam above blue

The same layers as N8 above



Paint dispersion of the blue in plain
polarised light.

The blue is an organic blue
and appears as a stain rather
than as particles

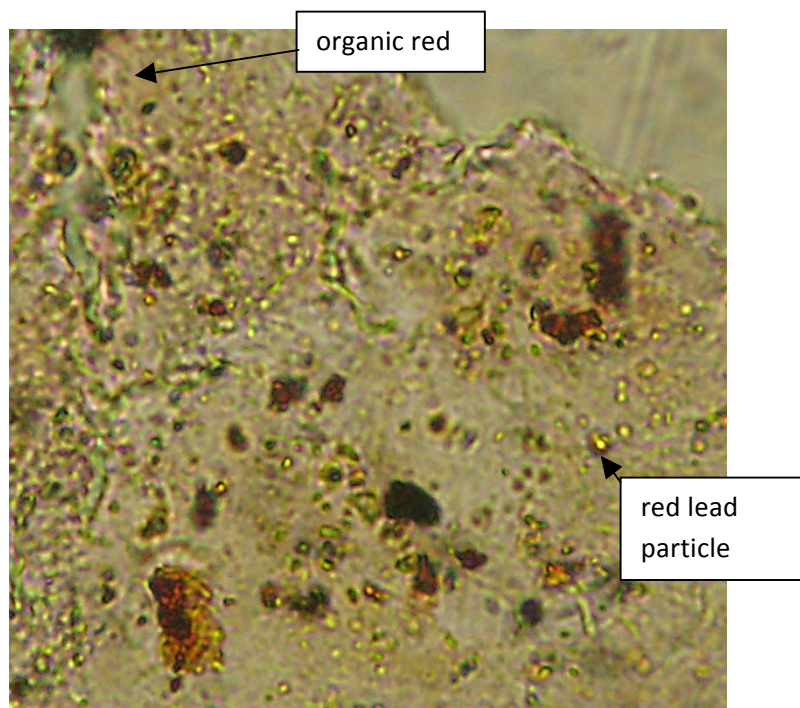


SAMPLE N10

Red floret on door frame

The cross-sections proved impossible to photograph clearly.

The dispersion shows an organic red and particles of red lead

**SAMPLE N15**

Rightmost stud

Fragment (i)

Mostly dirt, but the layer has picked up a lump of red lead

Fragment (ii)

Layers on wood. No red lead present.

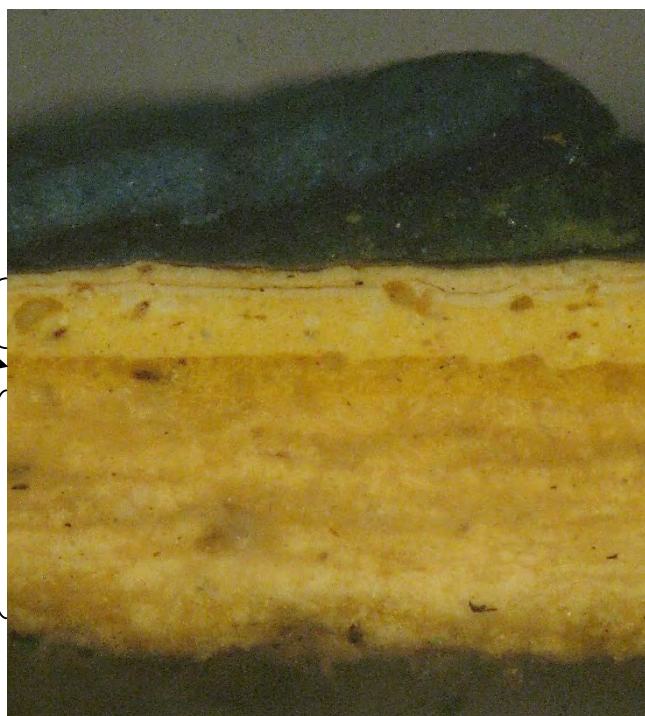


SAMPLE N16

Blue over yellow

2 lots of buff oil paint
yellow ochre [distemper?] layer

white
limewash[es]
over plaster

**SAMPLE N17**

Attic ex situ timber

Fragment (i)

limewash →



The yellow is pure yellow ochre

Detail of the red

Showing that it was applied
in two layers

The top coat is pure red iron
oxide, but the undercoat
also contains a little red lead
and some chalk



N17 Fragment (ii)

A good example of the light yellow layer.



SAMPLE N18

Attic – ex situ timber

No black in this sample, and the red and yellow layers are separated by dirt-filled limewashes



SAMPLE N19

Attic – ex situ timber



SAMPLE N20

First floor – stairs partition

Fragment (i)

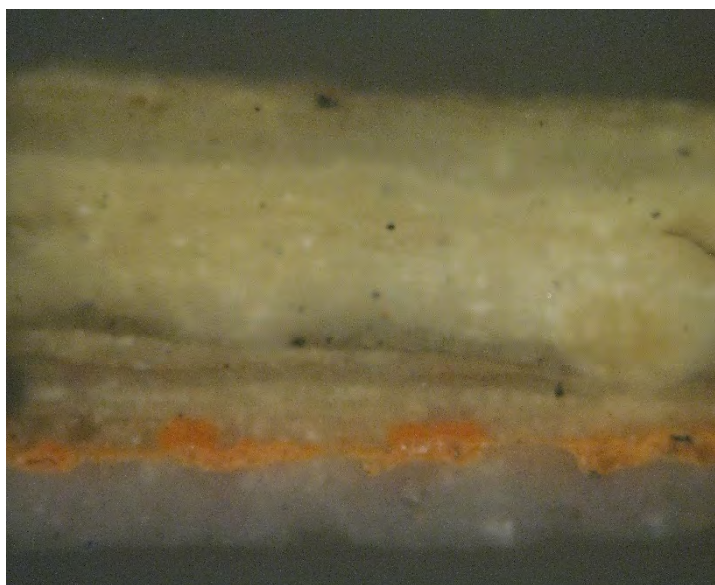
Upper layers

A coat of solid red iron oxide
over layers of white
limewash

Fragment (ii)

lower layers

with layer of bright red
trapped between the earliest
limewashes

Detail of the bright red layer

The undercoat contains lead white
and could be oil paint. The top
coat is pure red iron oxide

**SAMPLE N21**

First floor – stairs partition

The same red as in N20, but over
a piece of lining paper

