

*Madeleine  
Katkov*

*Christoph  
Oldenbourg*

*Conservation of  
Wallpaintings, Gildings & Polychrome.*

**Rochester Cathedral**

**Quire Leopards**

Report on the Conservation  
19.01.93 - 12.03.93

## Rochester Cathedral

### Report on the Conservation of the Quire Leopards 19.01. - 12.03.1993

#### Summary

The cleaning of the Victorian stencilled decoration on the walls and pulpitum of the quire has been undertaken as part of a series of conservation projects ongoing in the Cathedral. The scheme is largely a Victorian reconstruction of an earlier mediaeval decoration, some of which is exposed.

The decoration was very dirty and its varnish and retouchings had discoloured. The aim of the conservation programme was to clean the paintings in order to remove disfiguring former interventions and to tie the scheme in with the mediaeval original and the recently renovated surroundings.

During the cleaning all necessary repairs, consolidation and retouching were carried out. A final protective varnish was applied at the end of the project.

## Description

The paintings cover the entire length of the quire and pulpitum from the quire stalls up to the sill of the blind arcading. They show a repeating pattern of leopards and fleur de lys, with the bottom border a decorative band of strapwork and the top a series of heraldic shields. The major part of what is now visible is a Victorian reconstruction.

There is mediaeval decoration on the wooden (oak?) boards of the pulpitum (except for two planks on the northern side abutting the gate, which are a 1874 replacement). It extends at full height some 80 centimetres onto the ashlar of the north and south walls. There also survives a narrow strip of mediaeval decoration - circa 30 centimetres high - above the quire stalls, the full length of the wall on the south side and some 4.5 metres on the north wall. ( see sketch )

## Painting Techniques

### 1. The 1340 Scheme

The lime preparation for the mediaeval scheme on the pulpitum appears particularly gritty. It is possible that a proteinaceous addition was included in the mix.

The mediaeval scheme is basically executed in oil and various textures of different elements of the design may have been enhanced with additions to the medium such as size, egg or resin ( 'mixed technique' ).

The decoration was mapped out using plumb and snapping lines and the outlines incised using a compass. The sequence of painting is as follows: the blue and red backgrounds were blocked in, followed by the green and orange outlines. The spaces between the elements were painted white, correcting any inaccuracies. This was followed by oil gilding the lions and fleur de lys. A toning layer was applied. A raised decoration was applied to the lions possibly using stand oil.

### 2. The 1874 Scheme

An oil scheme was stencilled over a white background. The lions and fleur de lys were oil gilt. A toned soft resin layer was applied to the surface followed by the black detailing on the lions.

Where the two schemes meet, the 14th century colours - including the white backgrounds - were overpainted to match the muted reconstruction. This overpaint had discoloured and no longer matched the earlier scheme.

A final coating of the same toned soft resin varnish was applied all over as a protection and unifying element.

### Condition before Intervention

#### 1. The 1340 Scheme

##### a) The Ashlar Walls

There was evidence of past paintloss on the stone. Large areas were retouched. A strip of 1.5 metres at the east end of the north wall appear to have been severely damp damaged at some time in the past (see sketch and photograph 18).

The scheme was dirty but sound, with no further recent losses.

##### b) The Pulpitum

The original decoration on the pulpitum boards was, apart from being filthy, in a very fragile condition. Unlike the two reconstructed boards, the back of the mediaeval planks is unpainted. They therefore have bowed considerably and shrinkage of the wood had caused extensive flaking and loss of the paintlayer, sometimes including all the preparation layers. Large areas had been re-touched, the retouching mostly matching the 1874 reconstruction.

More recently emergency fixing had been carried out, apparently with a synthetic consolidant.

#### 2. The 1874 Reconstruction

The condition of the Victorian reconstruction was dirty but sound.

##### a. On the Walls

There was evidence of previous interventions, including cleaning, paint fixing, retouching and revarnishing.

In addition the large area of cleaning tests, recently carried out for the purpose of tendering, had been taken to considerably differing levels.

##### b. On the Pulpitum Boards

The condition of the Victorian reconstruction was dirty but sound.

### Findings during Conservation Treatment

1. Numerous past interventions were evident. It would appear that the Victorian scheme was cleaned and revarnished, possibly twice. Retouching / overpainting had been carried out at various times with different materials, much of it with little attempt to colourmatch. Also there was an emergency paint fixing campaign, most notably on the pulpitum, but also in isolated areas on the north and south walls. This must have been some time after the war as polyvinylacetate appears to have been employed. ( see photograph no.7 )

2. The previous cleaning had been considerably more thorough on the north side (which is better lit) than on the south side. The varnish removal was taken much further here, removing grime and dust deposits and abrading the paint to some extent: The red backgrounds to the leopards were repainted at least once, or possibly twice, unless the earlier evidence represents a pentimento. ( see photographs no. 8 and 9 )

3. The south side in contrast is in the shade and receives direct sunlight only in the early morning. The cleaning on this side had been much more cursory, many of the dark dust deposits were varnished over, and were thus fixed to the wall. The retouching of the white bands between the decorative elements on the south side was much more heavy handed in consequence ( see photographs 12 and 13 ) .

4. The date of the Victorian reconstruction was found written just below two of the corbels on the south side: A.F. 1874. ( see photograph 2 )

5. In the narrow strip of the 1340's scheme - which extends on the south side along the entire length of the wall - two 16th century graffiti were found ( see photographs 14 and 15 ).

6. Evidence of an earlier painted scheme was found under the 1340's paint on pulpitum. No earlier paint was observed under the 1874 scheme, on either the pulpitum or the ashlar.

#### Conservation Treatment

From the above it is clear that the different elements of the decoration are sensitive to cleaning to a differing degree: the black detailing over the gilding of the leopards was the most fragile and required the most delicate handling ; the most soluble colour was the red, which had been repainted at least once. The resistance to solvents was approximately equal in the green and blue areas; the most stable colours were the beige and white bands.

1. The Cleaning

a) 'Vulpex' spirit soap was used for the cleaning. Three different strengths were employed by adding 1%, 1.7% and 2.5% ammonia. The ammonia was household ammonia with a w/w concentration of 15%. The solvent action of the mix was mellowed with the addition of 33% ordinary tap water; water was also used judiciously for removing soap residues.

b) The strength, composition and method of application of these basic mixes had to be constantly re-evaluated and modified during work, most often on the south side and particularly on the pulpitum. ( Occasional blooming of varnish residue after the initial clean had to be removed with a 1% ammonia solution which was blotted off. )

c) The colour on the 19th century timber on the pulpitum was particularly difficult to clean: the resins in the wood had leached through, fixing paint, varnish and dirt. This had to be cleaned with a 60 : 40 mix of ammonia : acetone, rinsed and blotted as appropriate.

d) After the initial cleaning, the excess consolidant from the previous emergency fixing showed up dramatically on the pulpitum. (see photograph 7) . After numerous tests this fixative responded only to 'Nitromors' paint stripper and its removal proved to be particularly painstaking. ( 'Green Label' water washable paintstripper was employed for its useful handling properties; it is supplied as a gel. )

2. Consolidation

a) Plaster losses and cracks on the ashlar were filled with a fine lime and marbleflour mortar.

b) Surface losses on the pulpitum were filled using gesso with the addition of plaster of Paris and a drop of linseed oil.

c) The fixing of flaking paint had to be carried out with an acrylic emulsion 'Primal AC33' because the previous emergency fixing had been carried out with a synthetic adhesive. The use of an emulsion avoided the introduction of a solvent solution on already delicate 19th century colours, and allowed for gentle pressing with heat where necessary.

### 3. Final Presentation

The retouching was carried out after an insulating varnish layer of 8% 'Paraloid B72' in xylene was applied. 'Maimeri' varnish colours were employed, which were thinned with a 7% solution of 'Paraloid B72' in xylene. This produced a very satisfactory texture and gloss similar to the original, and remains easily distinguishable by ultra-violet light.

The tendering cleaning tests, some of which were very large, all had to be tied in.

'Paraloid B72' was chosen as the final protective varnish. Tests were carried out to establish the best concentration. 7% in xylene was chosen and sprayed on. Like the retouching this is reversible.

Katkov / Oldenbourg, April 1993.

### Acknowledgements

I am grateful for the expertise and dedication of Rita Radovanovich, Tom Organ, Douglas Carpenter, Louise Bradshaw and Jane Spooner.

Addenda:

List of Materials:

Cleaning:

'Vulpex Spirit Soap'  
ammonia  
acetone  
'Nitromors' paint stripper  
water

Consolidation:

fine lime mortar  
gesso plus gypsum  
'Primal AC33'

Presentation:

'Maireri Varnish Paints'  
'Paraloid B72'

Sketch of Quire

List of Photographs:

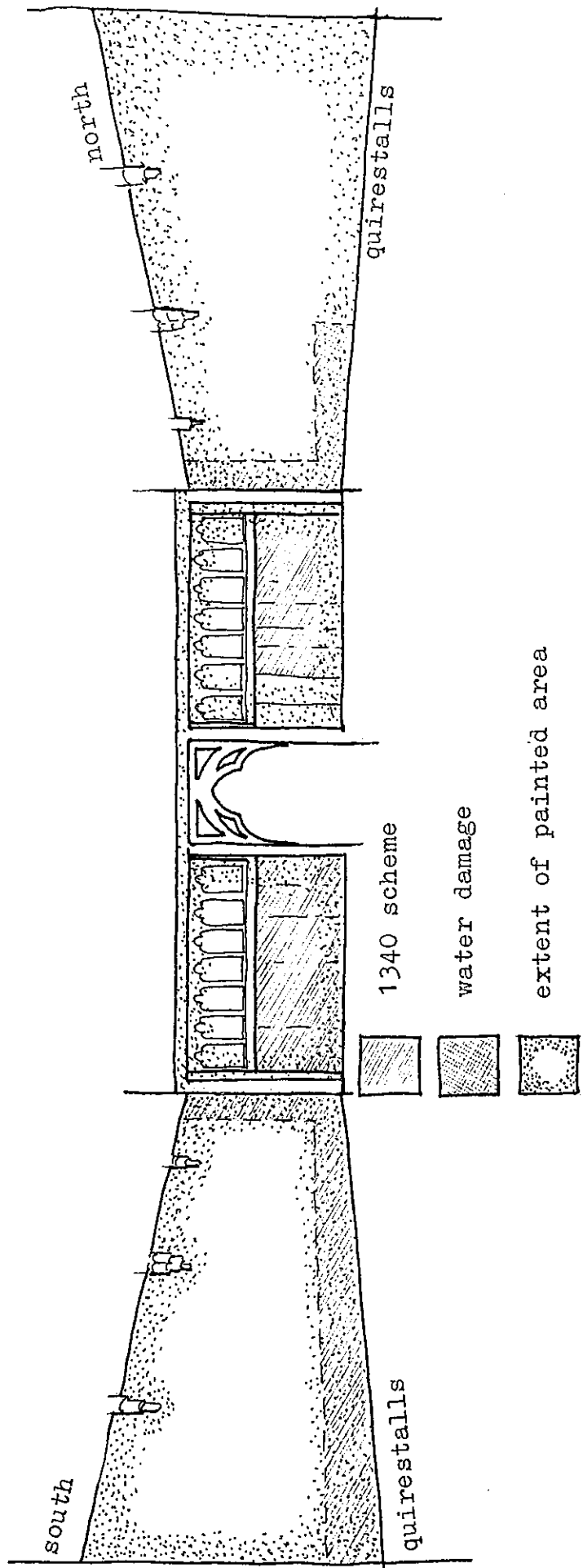
1. overall of site
2. date of Victorian reconstruction (detail)
3. overlap of 19th century gilding (detail)
4. cleaning in progress
5. cleaning in progress (detail)
6. cleaning in progress ( " )
7. 'remains' of emergency fixing (detail)
8. proof of repainting in red area ( " )
9. proof of repainting in white area ( " )
10. part of the cleaning tests area
11. cleaning test Plowden & Smith
12. detail of area before retouching
13. same area after retouching
14. close up of graffiti 1530 - 1590
15. close up of graffiti 1593
16. N-side of pulpitum after cleaning and before retouching
17. ditto after retouching and varnishing
18. West end of N-wall after cleaning and before retouching
19. ditto after retouching and varnishing



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hand sketch - not to scale



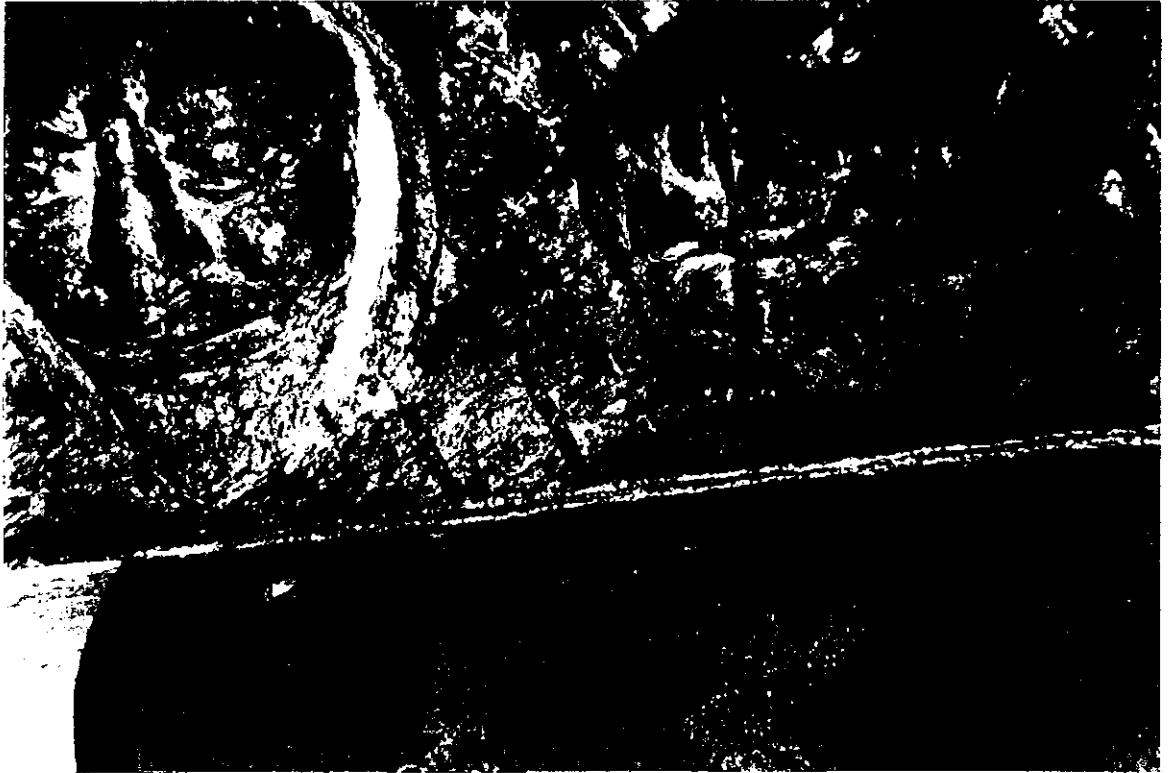
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1. overall of site

Rochester Cathedral  
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2. date of Victorian reconstruction



3. overlap of 19th century gilding

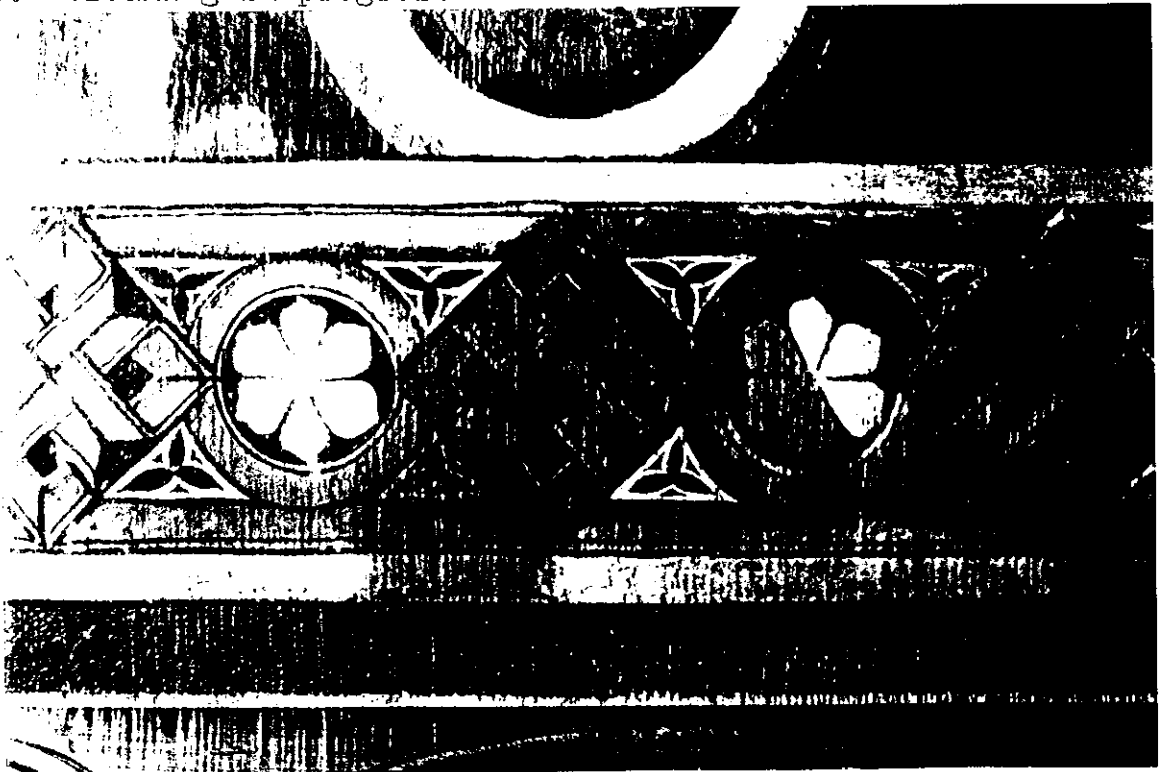


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4. cleaning in progress

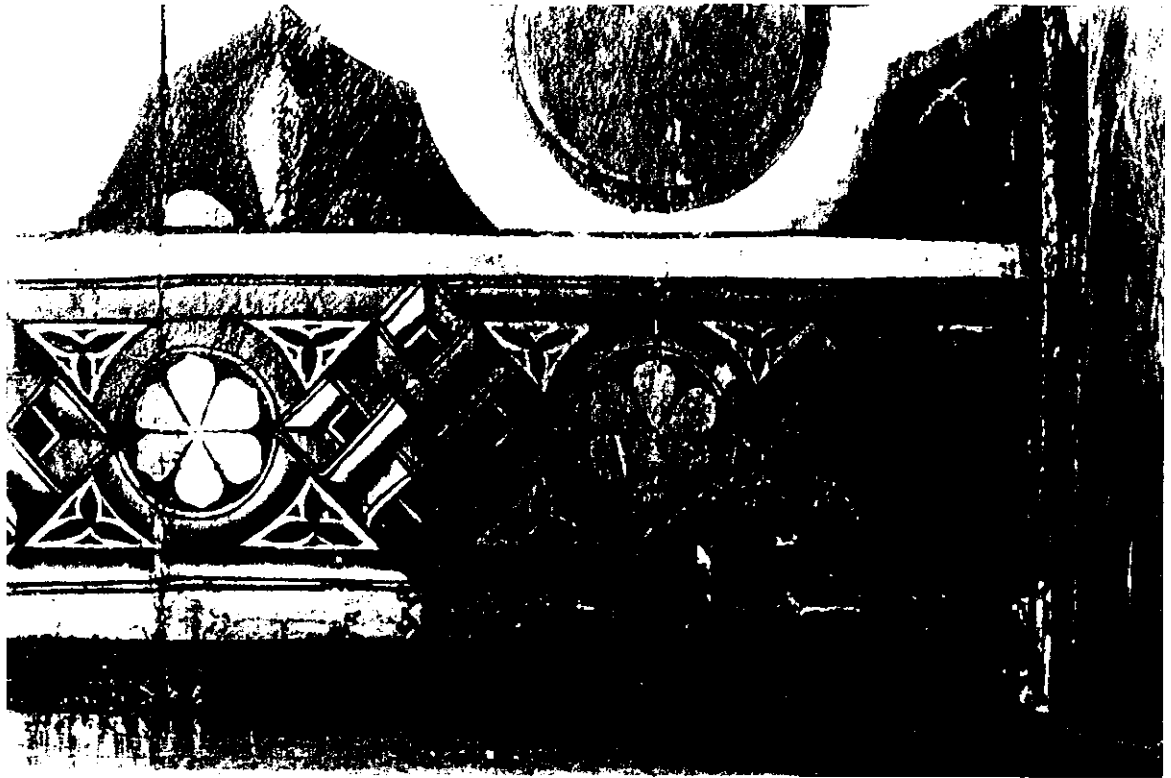


5. cleaning in progress

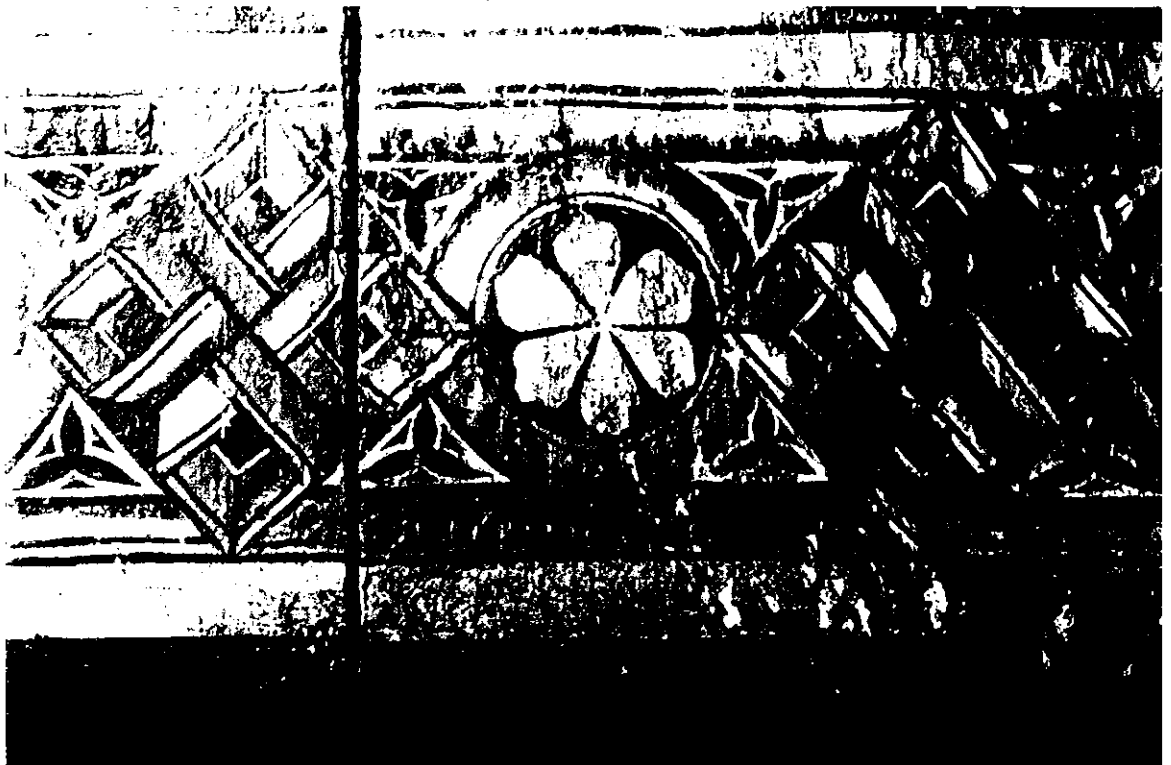


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6. cleaning in progress



7. 'remains' of emergency fixing after first clean

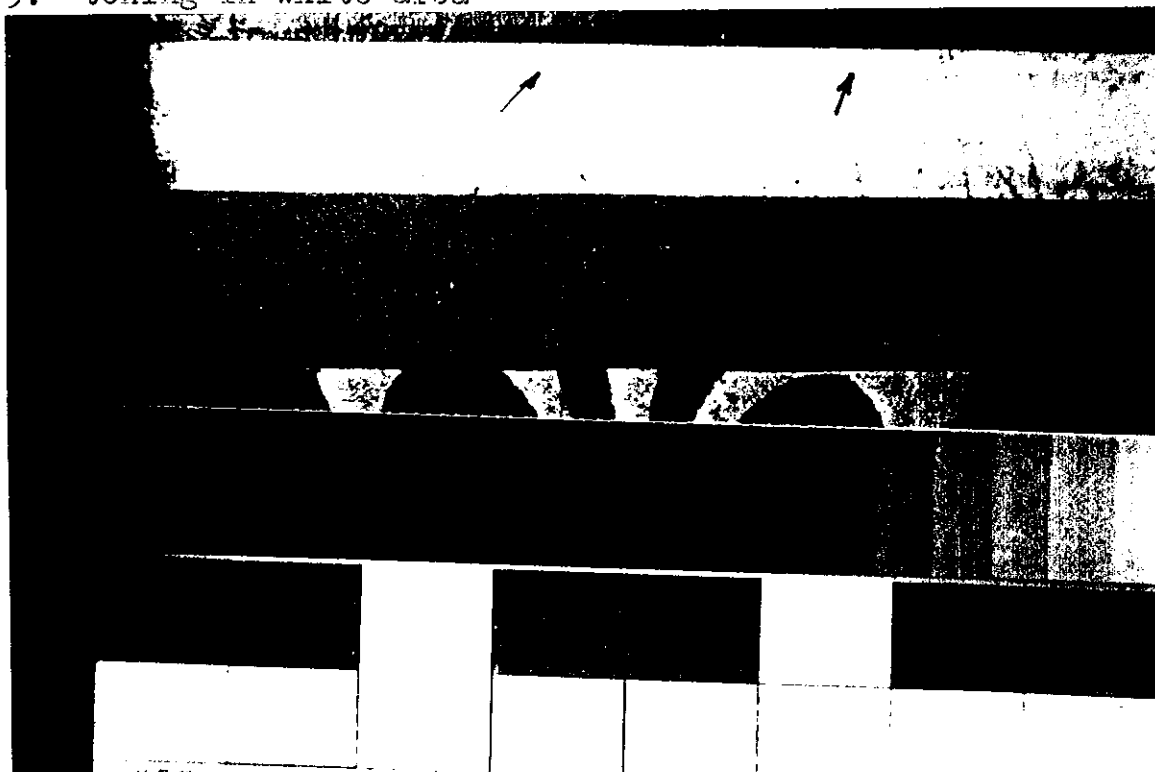


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8. overlap of red repaint



9. toning in white area



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10. section of area of cleaning tests (before conservation)



11. Plowden & Smith cleaning test



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12. detail before retouching



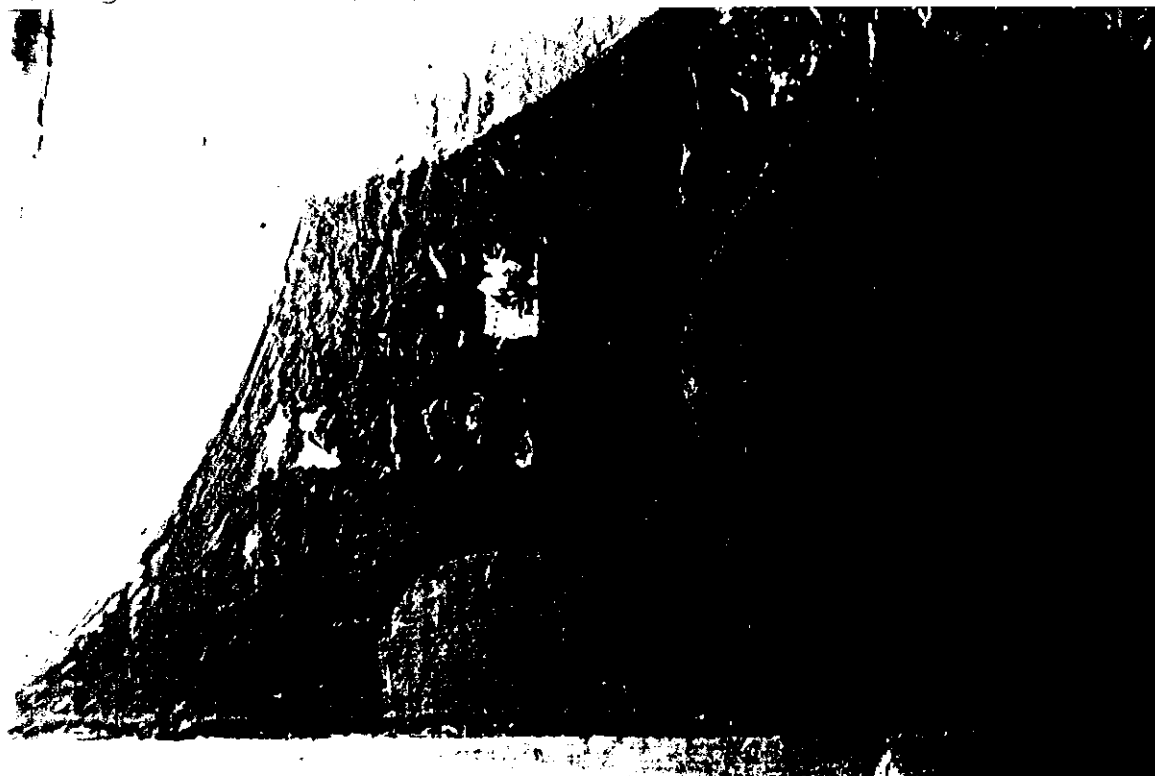
13. same detail after retouching





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14. graffiti: 1530 ; 1590



15. graffiti: 1593



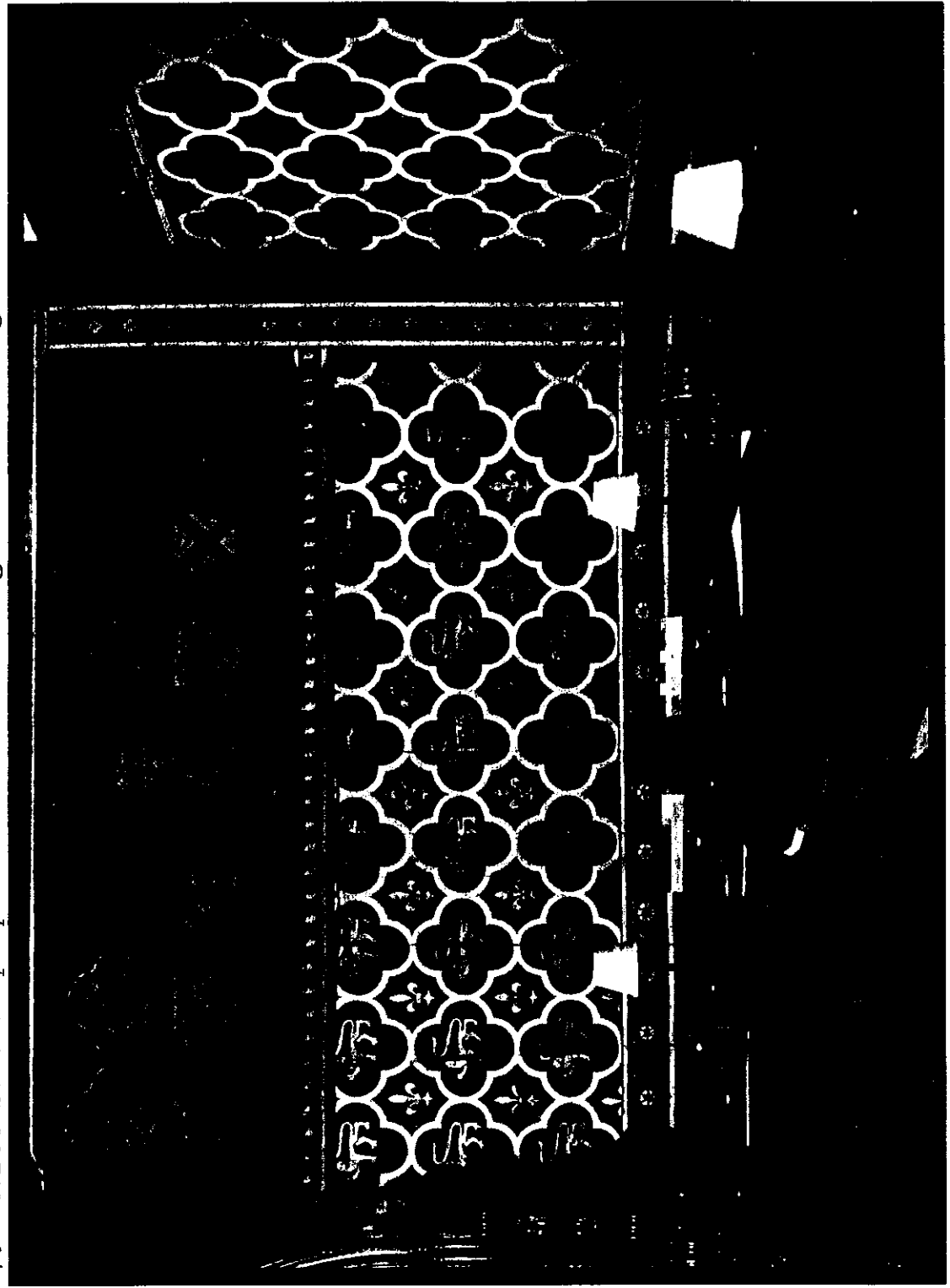
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16. north side of pulpitum after cleaning and before retouching



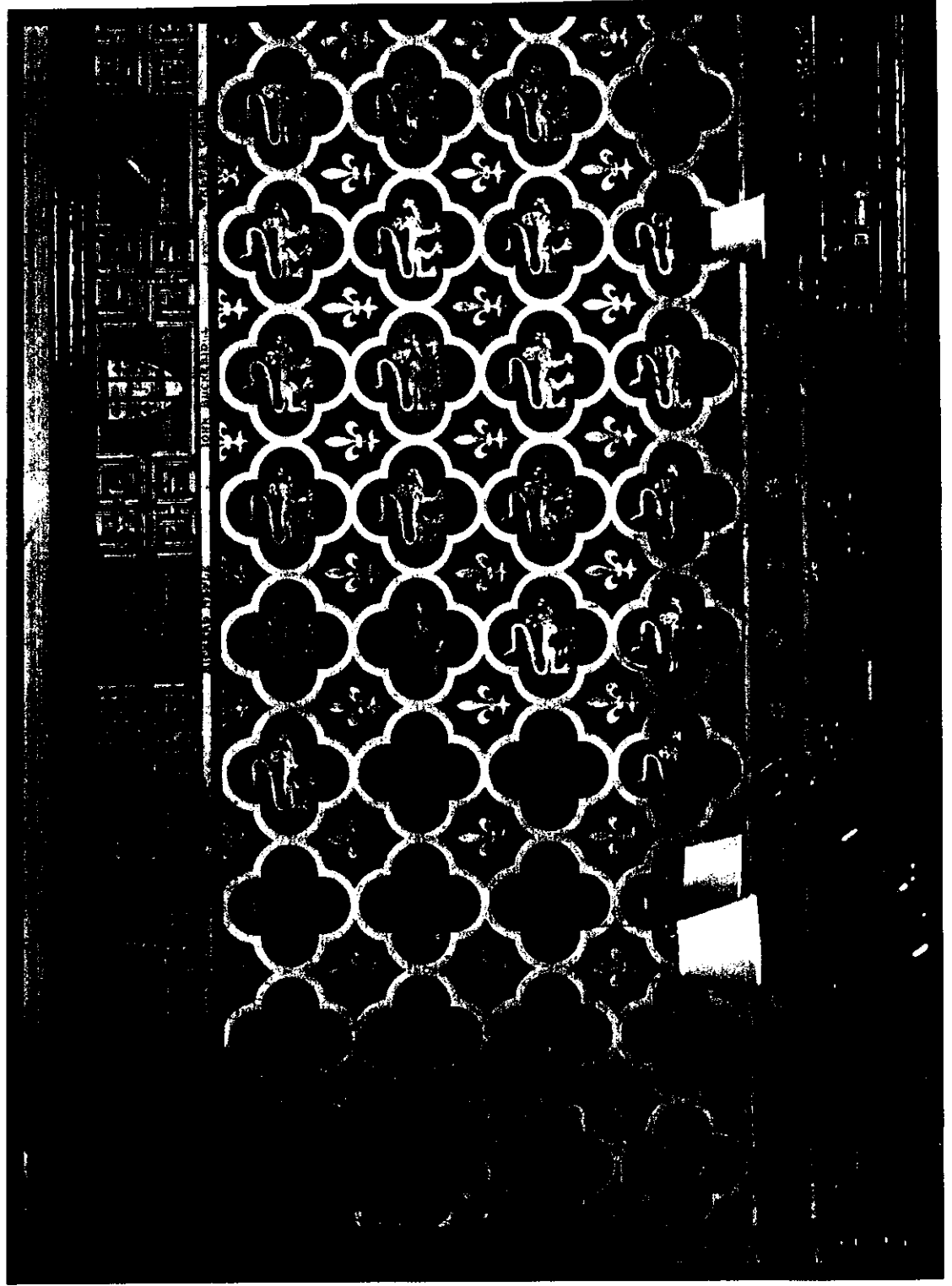
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17. north side of pulpitum after retouching and varnishing



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18. w-end of n-wall after first clean



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19. w-end of n-wall after retouching and varnishing

