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Condition survey and estimate for the treatment of the wooden doors and floors
The Town Hall
Manchester

Manchester Town Hall
April 2004

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1. Introduction

On the instruction of Thomas Barnes and Sons plc (design and building contractors), Hirst Conservation were commissioned to undertake a survey detailing the present condition of the wooden doors leading to six rooms in the old Town Hall, Manchester. The doors inspected led to the Banqueting Hall, Lord Mayor's Parlour, Reception Room, Tower Room, small Anti-Room, and Conference Room. A specification for recommended treatment could then be given, along with budget costs.

In the Banqueting Hall and Lord Mayor's Parlour, attempts have been made to strip the varnishes from the wooden parquet floors. It is presumed that an industrial sander was used, leading to the stripping of the upper surface and original finishes of the wood. Advice was sought from Hirst Conservation to recommend the most suitable method of resurfacing these stripped areas to reintegrate them with the existing varnished areas. An estimate for this is given, along with recommendations for an alternative method of treating the floors that would greatly improve their appearance within conservation parameters.

Samples were taken from the wooden floors and doors and submitted for analysis to identify the historic finishes. The results of this analysis will be provided as a separate report. [1]

The inspection was undertaken by Alison Thornton and Ian Dawson of Hirst Conservation in April 2004.

[1] Samples submitted to the University of Northumbria for analysis, results pending.

2 Condition Survey

2.1 Description

The **doors** leading to the main rooms of Manchester old Town Hall share many similarities, including their design and material, the 'restorative' treatments that they have received in the past, and the damages to which they have been subjected. As such, their general condition in this part of the Town Hall can be summarised (item 2.2), with specific irregularities given for the doors leading to each of the named rooms (item 2.3).

The **wooden floors** are visible in the Banqueting Hall, Lord Mayor's Parlour, Reception Room, small Anti-Room, and Conference Room. As with the doors, the floors are made of similar material, and appear to have been subjected to similar treatments in the past. They consequently share a similar present condition.

2.2 General Condition Survey

2.2.1 Doors

The doors are made of oak and have two flat recessed upper panels, and four carved recessed lower panels.

- The doors were most probably French polished originally. However, they have also been coated with (at least) one further layer of varnish, which has been may be a polyurethane material (results of analysis pending). This layer is aesthetically unsympathetic with the original intention of the doors, and with the adjacent wooden panelling on the walls of the rooms. It has a glossy appearance and is dark. It is interesting to note that the lower parts of the doors are darker than the upper parts. It is possible that the lower parts, which have been continually abraded by mechanical impacts, have received further coatings, such as waxes, as quick fixes to 'improve' their appearance.

- All of the doors, apart from that in the small Anti-Room, open into the room, meaning that the exterior side has acted as the through traffic side, and has been exposed to the most severe and sustained mechanical impacts: Catering trolleys have caused horizontal gouges at lower level, and general harsh impacts have caused numerous dents and losses in the wood. On several of the doors, the inner facing edge that holds the fire resistant strip to floor level has been chipped away, leaving the area jagged and worn.

- Over time, continual use of the brass handles has led to them becoming loose in the door. Often, a piece of plywood has been crudely attached to create a solid base for the handle: defunct screw holes around the handle have been filled.

- Brass hooks have been used to hold the doors open. These are attached to the wood panelling to either side of the doors, with the catch to hold the hook on the door itself. When not in use to hold the door open, the hooks hang against the wood panelling, resulting in light semi-circular gouges in the wood.

- The escutcheons are missing from around the keyholes on the majority of the doors.

2.2.2 Floors

The floors are made of oak and contain some sections of parquetry.

- The Banqueting Hall, Lord Mayor's Parlour and Reception Room have varnished timber floors with fixed central carpets, sealed around the edges with a rubber strip. The small Anti-Room, Conference Room and Tower Room are fully carpeted and no timber is visible.

- The original coating is still extant in the Grand hall (photograph 19, appendix 1), and in a strip running alongside the (too small) carpet in the Lord Mayor's Parlour (photograph 12 appendix 1).

- Unfortunately, the floors in the remaining rooms have been coated with a modern varnish (polyurethane ?) resulting in an aesthetically displeasing surface, which is too dark and too glossy, with an uneven 'treacle-like' finish. The recent replacement of the carpet in the Lord Mayor's Parlour revealed that the unpleasant additional varnishes had been applied *around* then carpet only, with the original finish being present *beneath* the carpet. It is not known whether this selective application of varnish was carried out in all of the rooms to be considered: knowledge of this would have implications for the treatment of the floors, as discussed in section 3.2.

- Hirst Conservation were requested to make recommendations for the resurfacing of the floors in those areas of the Banqueting Hall and Lord Mayor's Parlour that have been sanded bare. These are given in section 3.2.

2.3 Specific observations regarding the condition of the doors and floors

2.3.1 Banqueting Hall

Features of the room to be considered are the wooden doors leading from the corridor, and an area of sanded floor.

The points mentioned in section 2.2 apply to the doors and floor in this room, with the following additional items:

Doors

- The carved wooden bases at either side of the doors are in a fragile state. That on the right has sections missing, whilst other sections are loose, whilst that on the left has many of its component parts missing (see photograph 7, appendix 1).

- Skirting to the panelling left of the doors to the inside of the room is missing.

- On the left hand door (viewed from the inside) there is a flame retardant strip, a foot of which is missing from the lower part next to the floor. This should be replaced for Health and Safety reasons. In this same area, there is a housing where there used to be a bolt: so much timber loss has occurred in this area that the bolt has been lost, resulting in a disfiguring appearance (photograph 3, appendix 1).

- An inserted piece of wood around the new hinge appears lighter than the surrounding wood. The hinges are adequate.

- The hooks have put a strain on the wooden panelling, causing the latter to become loose, with movement in the region of 0.5cm.

Floor

- The coatings have been removed from a small section of the floor using an industrial sander. The work was stopped, however, due to the damage being inflicted on the floor through use of such an abrasive technique (photograph 1, appendix 1).

- Previous test have been made to establish the most appropriate coating to apply to the exposed timber to integrate the area with the rest of the floor as it presently appears. None of the tests produced an appropriate finish (photograph 2, appendix 1).

2.3.2 The Lord Mayor's Parlour

Features of the room to be considered are the wooden doors leading from the corridor, an area of sanded floor, and a strip of oak floor with its original finish alongside the carpet.

The points mentioned in item 2.2 apply to the doors and floor in this room, with the following additional items:

Doors

- The internal faces of the doors are not as severely abraded as the exterior faces. In general, the doors in this room are in better condition than those in the Banqueting Hall

- The coating on the panelling is quite glossy and thick and appears to be a polyurethane.

Floor

- The coatings have been removed from a small section of the floor using an industrial sander. The work was stopped, however, due to the damage being inflicted on the floor through use of such an abrasive technique.

- The stripped area of the floor resembles that in the Banqueting Hall.

- There are loose areas of parquet floor which will require lifting and re-adhering. At present the glue on these pieces is very inflexible. The floor appears, at present, to be secured by the overlying varnish layers, therefore the extent of loose parquet cannot be quantified.

- The new carpet, made to replace an old carpet at the centre of the room, is too small by approximately 10 cm, so that a strip of oak floor with its original coating is revealed. This would have been covered and protected by the old carpet, around which the darkened polyurethane varnish was applied. A strip of latex glue from the old carpet exists along this strip (see photograph 12)

2.3.3 Reception Room

Features of the room to be considered are the wooden doors leading from the corridor.

The points mentioned in item 2.2 apply to the doors and floor in this room, with the following additional items:

Doors

- The internal surfaces of the door in this room are acceptable. The door is constantly wedged open, due to the left hook being broken. The through traffic side of the door is therefore the most damaged.

- The escutcheon around the keyhole is present and could be used as a template to recreate this detail where it is missing from the other doors (photograph 14, appendix 1).

Floor

- Has the same inappropriate appearance as that described in Section 2.2 (photograph 17, 18, appendix 1).

2.3.4 Tower Room

Features of the room to be considered are the wooden doors leading from the corridor.

The points mentioned in item 2.2 apply to the doors and floor in this room, with the following additional items:

Doors

- The door has been quite recently glazed in the two upper recesses with toughened glass.
- The interior of the door is not so marked as the exterior due to the door being held open and continuously abraded due to mechanical impacts.
- The internal surface of the door near to the handles is marked with finger grease.
- The hooks are attached to stone either side of the doors, causing abrasion to this material.
- An area close to the centre of the door contains a matte rectangle, which is thought to be adhesive residue from a removed health and safety label.
- The fire resistant strip is missing to a height of approximately 12 cm on the lower part of the door.

Floor

- This room is presently used for storage and is completely carpeted.

2.3.5 Small Anti-Room

Features of the room to be considered are the wooden doors leading from the corridor.

The points mentioned in item 2.2 apply to the doors and floor in this room, with the following additional items:

Doors:

- The interior side of the door is acceptable, whilst the through traffic side is very damaged.
- A ‘fire door’ sign is adhered to the right door.
- At the mid-centre of both doors, the varnish has previously been stripped and the loss repainted. The repainting has discoloured and appears incongruous with the finish on the majority of the door. There is also a wood infill in this area (photograph 21, appendix 1).
- The ends of the hooks have broken off and the doors are held open with wedges.

Floor:

The room is fully carpeted.

2.3.6 Conference Room

Features of the room to be considered are the wooden doors leading from the corridor.

The points mentioned in item 2.2 apply to the doors and floor in this room, with the following additional items:

Doors

- The doors are glazed so there would be less stripping work.
- In this room the doors are actually hung a different way round, so that the door opens to the outside. It is therefore the interior sides of the doors are heavily gauged and marked.
- It is possible that some of the panelling in this room looks contains its original coating only.

Floor

The room is fully carpeted.

3 Recommended Treatment

4.1 Doors

3.1.1 general

As detailed in the Condition survey, the internal and external faces of the doors differ in condition due to the level of exposure they have had to mechanical damage. Consequently, it is recommended that the through traffic (damaged) faces of the doors are treated differently from the inner (less damaged) facing doors. The exception to this are the doors in the Conference Room where the inner faces are more damaged than the outer.

In general, it is desirable to remove the polyurethane varnish. A lighter finish lies beneath the present very dark finish, and is visible in areas where the shiny varnish is lost. This lighter finish is more aesthetically pleasing and matches the appearance of the panelling around the room.

The more damaged faces of the doors (through traffic side):

The outer faces of the doors do not lie beside panelling. They can therefore be treated independently.

- Following tests to ascertain the feasibility, remove the later varnish using dry scraping method or chemicals where required, leaving the original coating intact if and where possible. It is likely that the original coating is a French polish. It is possible that a layer of wax exists between the layers, which might explain the apparent ease with which the polyurethane varnish can be removed. Areas of loss could be touched in, individually.

- Horizontal gouges in the lower parts of the door, caused by the mechanical impacts from the catering trolley etc., should be accepted, as it is likely that any fillings (using, for example, wax) made in these areas would be knocked out by future mechanical impacts.

- Aesthetics dictate that a protective brass plaque *cannot* be fitted to these areas of the door to provide protection.

The less damaged faces of the doors (usually the inner face):

The inner face often lies adjacent to wooden panelling, the latter of which is in a superior condition to the doors (although it is thought to also be coated with polyurethane varnish).

- Small damaged areas could be coloured in individually.

Points applicable to both sides of the door, and to the panelling where stated:

- Small, 'one-off' losses should be filled and re-touched. Repairs to be made with modelled wood sections or waxed then integrated.

- With regard to the panelling, there are some knocks and abrasions from the doors that need to be sealed and coloured in, as well as damage from the hook that holds the door. The hooks should be removed, and the damaged areas filled (if required) and retouched.

- The missing flame retardant strip from the inside of the door should be replaced and the wood built up around it.

- Holes around the handle can be filled and coloured in.

- Make missing escutcheons using the extant one in the Reception Room as a template.

- French polish doors as required.

3.1.2 Banqueting Hall

- Loose or missing sections of the base of the architrave should be dismantled, and new parts carved where necessary. The base of the door is severely damaged, and will require significant intervention to repair. This area of the door will have to be taken apart and new parts carved from oak. The component parts then need to be reassembled and stained to match the surrounding.

- Missing skirting to the left of the doors in the Banqueting Hall should be replaced.

- A piece of plywood has been used to make repairs around the door handle, where it has previously been worn or become loose. These can be removed and replaced with oak.

3.1.3 Tower Room

- In the Tower Room, the internal surface of the door near to the handle marked with finger grease etc and requires cleaning using turpentine.

3.1.4 The small Anti-Room

- In the small Anti-Room, the varnish has previously been stripped and repainted. This area may need to be stripped to the bare wood and re-integrated.

3.2 Floor

3.2.1 General

The areas of floor in the Banqueting Hall and Lord Mayor's Parlours, which have been stripped, have been so using quite aggressive methods; a sander was used, taking the top surfaces off.

Investigation on site suggested that there may be a way of removing these very unattractive varnishes without using such aggressive methods, such as dry scraping or chemical removal. Very limited testing indicated that dry scraping revealed a more blonde finish on the oak. (photograph 18, appendix 1). This would have matched the panelling very well and brought the room together. (Illustrated in the grand Hall, where the floor is untreated with the polyurethane varnish, and the appearance of the floor is a lot more sympathetic)

3.2.2 If mechanically sanded areas are to be re-integrated with the existing floor finish:

- Undertake testing to establish the most suitable method of integration and allow agreement with the professional team. Treatment is likely to include sealing the surface of the timber and colouring it with water based stains to match the background colour of the original floor. A modern varnish layer should then be introduced to integrate with the surrounding, existing film.

- In the Lord Mayor's Parlour, where the new carpet has been made it falls short by about 4 inches of the sanded floor and coated floor, a latex glue runs along the edge. This will need to be removed. The floor here will be treated in an identical manner to that in the Banqueting Hall (described above). It should be noted that the missing strip along the carpet retains its original coating. Whilst this area could be integrated to resemble the surrounding, inappropriate varnish, this should be undertaken in a reversible manner to allow removal in the future. A phase of testing, and agreement from the client, should be made before any interventive works.

- Repatination of these areas will be necessary, whether to the existing finish or as part of a restoration process to the whole floor.

3.2.3 Total removal of inappropriate finishes.

A more preferable option for the treatment of the floors may be to restore their original appearance, to restore balance between the panelling and floors.

A phase of testing should be undertaken to establish the methodology and final appearance, and allow agreement from the client. Trial areas of 1 m^2 should establish the most effective method of removal of the later varnishes, to condition of the underling original finishes, and the further requirements for any refinishing. This would allow more accurate costings to be made and allow evaluation of the suitability of this treatment.

It was noted during the site visit that, whilst the panelling is lighter than the floors, the skirting is dark and scuffed though floor cleaning and wear and tear. If removal of the varnish from the floor creates an imbalanced appearance, it is an option to slightly patinate the edges

of the floor where they are to be stripped in order to make the difference between the lighter floor and the marked skirting less obvious.

At the Shunk Building, of Manchester University, a similar approach was taken, and, following removal of varnishes, the floor was resealed using one base coat and four top coats of Bonner-Kemi Traffic Wood Floor seal. This work was undertaken by C.M.T Flooring Ltd who were sub-contractors to Hirst Conservation.

3.2.4 Repairs

Loose areas of parquet floor in the Lord Mayor's Parlour require lifting and re-adhering. At present the glue on these pieces is very inflexible. The process is to remove the old glue and replace it with a modern latex type adhesive.

4 Estimates

The following prices are categorised as costs and estimates, where costs are fixed prices for known quantities of work. Estimates express values of work which are based on current understanding, but which may be subject to change following further testing. The level of intervention is yet to be agreed, and therefore the costs and estimates are broken into units.

All prices are exclusive of VAT, and are based on work on site.

4.1 Testing	
Prior to any interventive works to the floors or doors, testing will be required to establish the most suitable methodology, create quality control panels, and allow agreement of desired finishes with the client and professional team. The cost allows for site attendance for two conservators, to undertake tests on doors and floors, and the production of a specification for work. Cost	£1,172.00
4.2 Doors	
The more damaged faces of the doors (through traffic side):	
Remove the later varnish using dry scraping method or chemicals where required, leaving the original coating intact if and where possible Estimate (for 1 side of 1 door)	£656.00
French Polish Estimate (for 1 side of 1 door) – this is for a full French polish, which may not be required. To be determined after removal of varnish	£700
Repairs	
Areas of loss could be touched in, individually. Small, 'one-off' losses should be filled and re-touched. Repairs to be made with modelled wood sections or waxed then integrated.	
The hooks should be removed, and the damaged areas filled (if required) and retouched.	
The missing flame retardant strip from the inside of the door should be replaced and the wood built up around it.	
A piece of plywood has been used to make repairs around the door handle, where it has previously been worn or become loose. These can be removed and replaced with oak. To be undertaken on all doors. For all repairs as described above, allow a cost per room of	£1073.00
Make missing escutcheons and brass fittings for handles using the extant one in the Reception Room as a template Estimate (for 1 door)	£80

Banqueting Hall Loose or missing sections of the base of the architrave should be dismantled, and new parts carved where necessary. The base of the door is severely damaged, and will require significant intervention to repair. This area of the door will have to be taken apart and new parts carved from oak. The component parts then need to be reassembled and stained to match the surrounding.	
Missing skirting to the left of the doors in the Banqueting Hall should be replaced. Cost	£700
Tower Room	
In the Tower Room, the internal surface of the door near to the handle marked with finger grease etc and requires cleaning using turpentine. Cost	£23.30
The small Anti-Room	
In the small Anti-Room, the varnish has previously been stripped and repainted. This area may need to be stripped to the bare wood and re-integrated. Cost	£656.00
4.3Floor	
If mechanically sanded areas are to be re-integrated with the existing floor finish:	
Banqueting Hall Lord Mayor's Parlour Estimate	£3,936.00
Total removal of inappropriate finishes.	
(to Banqueting Hall, Lord Mayor's Parlour and Reception Room) (exact areas are unknown due to fixed carpeting, a metre rate is provided) estimate per square meter	£110.00
Allow provisional sum for refinishing (to currently exposed areas of floor) Per room	£2000
Repairs	
Loose areas of parquet floor in the Lord Mayor's Parlour require lifting and re-adhering. At present the glue on these pieces is very inflexible. The process is to remove the old glue and replace it with a modern latex type adhesive Cost per square metre	£350.00

5 Programming

The timing of work will be dependant on the level of intervention required, and the access available to the walls. Assuming that all rooms are available for access, the following will apply:

Testing phase – allow 1 day on site, and 2-3 days office time

Repairs to doors – allow three days per set of doors. This time cannot be condensed; allow a total of eighteen days for repairs.

Repairs to banqueting hall – Allow 2 days

Repairs to Lord Mayor's Parlour floor – allow 4 hours per square metre (this may be longer if numerous small areas of repair are required).

Sourcing of new escutcheons and door handles – To be agreed

Removal of varnish from doors, and integration of areas of damage – allow 4 days per door (to include both sides of one door)

Removal of hooks from panelling and repairs – allow 1 day per room

French polishing of doors – level to be agreed, allow 2 days per one side of one door for a full repolish.

Repatination and integration of previously sanded areas of floor – allow six days for two people (for both floors).

Removal of varnish from floors – allow 3 square metres per day per person, for a team of up to 4 people per room (all rooms may not be undertaken simultaneously – this will be dependant on programme).

Refinishing of floors – to be agreed (following testing), allow 3-5 days per room

The above timings are based on a block of time on site, with no interruptions to programme. Where timing is expressed as days, these are eight hours on site, Monday - Friday. The level of work is yet to be agreed, and it is therefore more appropriate to provide the information in unit timings. The timings will vary with the number of conservators on site. This number can be adjusted to suit working space and programming and so retains some flexibility.