

# ornateinteriors

Specialists in Traditional Lime, Heritage and Fibrous Plasterwork

PROJECT: **GREENBANK HOUSE, LIVERPOOL**

# FOREWORD



“Over the last four decades I have had the pleasure to lead a team of dedicated and talented craftsmen, working alongside them on the restoration of some of the most magnificent, historic buildings throughout the country.”

As a project reaches its completion our thoughts are all too often on the next project and not allowing ourselves the time to reflect on what we've just achieved. We decided to produce these project books to remind us of our accomplishments and to showcase the skills of our craftsmen whilst they add their own piece of history to a project for future generations to appreciate.

Some projects are special due to the challenges, some for their complexity, some for their splendour and some due to the project team involved; the client, the architect, the contractors, who work with a pride and enthusiasm comparable to our team. The restoration of Greenbank House was a prime example of all of these.

This project book allows us to tell the story of Greenbank House and the part Ornate Interiors played in regenerating this wonderful building, and giving it a worthwhile purpose, for the University of Liverpool.

A special mention should go to Jim Dodd, Ornate Interiors' Contracts Manager, for meticulously overseeing the project throughout.

**Ronnie Clifford**  
Managing Director



# THE HISTORY OF GREENBANK HOUSE

The original house was built in the early eighteenth century on part of the Toxteth Park estate. In 1788 the house and an estate of 24 acres was leased by the Earl of Sefton to William Rathbone IV, as a country retreat for his young family. The freehold of the property was purchased in 1809, the year of William Rathbone IV's death.

Following the death of William Rathbone IV substantial alterations were made to the building by Hannah Mary, his wife, in accordance with his wishes. These alterations included a 'Strawberry Hill' Gothic style addition (1808-1812), a red sandstone western extension (1868) and a conservatory (1869).





William Rathbone VI records in his memoirs Hannah Mary's notable addition of a fine cast iron screen to the south face of the house to form a veranda and balcony, writing that: her brother or father [Richard or Joseph Reynolds], then of

Colebrook Dale, gave her the iron veranda on the lawn side of it, which was made at their work [Coalbrookdale iron works, Shropshire]. William Rathbone VI A sketch of history during four generations, 1894, p.22.

The English Heritage Blue Plaque on Greenbank House honours Eleanor Rathbone (1872–1946), suffragist and pioneer of the state-funded family allowance, and her father, social reformer William Rathbone VI (1819 –1902), who created the first system of district nursing.

# CONDITION SURVEY

In October 2014 Sheppard Robson LLP undertook a survey and compiled a report summarising the condition of Greenbank House and the impact its condition had on its heritage and significance. Their report documented that surveys and appraisals by specialist subcontractors was highly recommended as it was likely to be required as part of the listed building application. This included an appraisal of the internal decorative plasterwork and the appraisal and analysis of external render.

In early April 2015 Ornate Interiors was approached by Sheppard Robson LLP to submit costs to provide an advisory report into the present condition of the internal plasterwork and external render. On April 29th 2015 Ornate Interiors was then commissioned to undertake the report.

The brief was to inspect the condition of the external render, the internal wall and ceiling plaster and the many decorative mouldings with a view to conserving as much of the original work as possible. The 133-page report detailed the required areas of repair, the method and materials required for repair to over 40 areas, with a separate report submitted detailing budget costs.



*Damaged mouldings*



*Missing cornice*



*Damaged lath and plaster ceiling*



**“ It is vital specialist subcontractors are engaged at an early stage so the true cost and time implications of their work can be factored in the build programme. ”**

*Sheppard Robson LLP 2014*

*Damage from water ingress*

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Temporary ceiling props



Example of moulding



Example of moulding

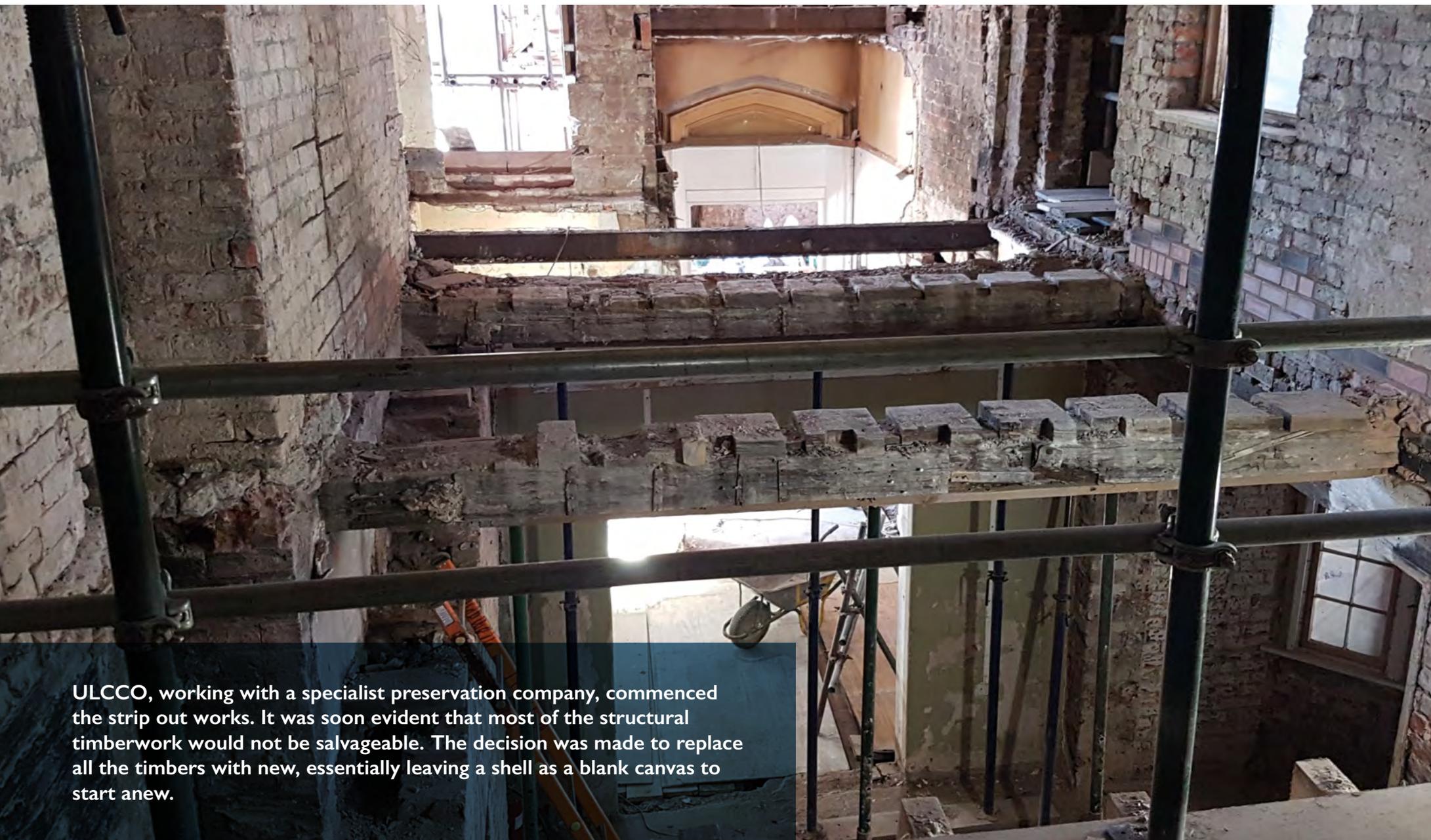
## DEMOLITION

The building had been unoccupied since the 1990s without heating or maintenance being undertaken. Over time water ingress had penetrated most of the rooms with collapsed ceilings and wall plaster evident. To try and prevent further loss of plasterwork the main contractor ULCCO (University of Liverpool Construction Company) installed temporary props to ceilings.

Ornate Interiors' specialist plasterers attended site prior to any demolition work commencing to take sections, squeezes (impressions of existing mouldings) and dimensions of all individual mouldings that would have to be remanufactured and later installed. These were all catalogued and securely packaged then transferred to the Ornate Interiors workshop in Leeds for safekeeping while the demolition and rebuilding work commenced.



Example of cornice moulding



ULCCO, working with a specialist preservation company, commenced the strip out works. It was soon evident that most of the structural timberwork would not be salvageable. The decision was made to replace all the timbers with new, essentially leaving a shell as a blank canvas to start anew.

# LATH AND LIME PLASTER

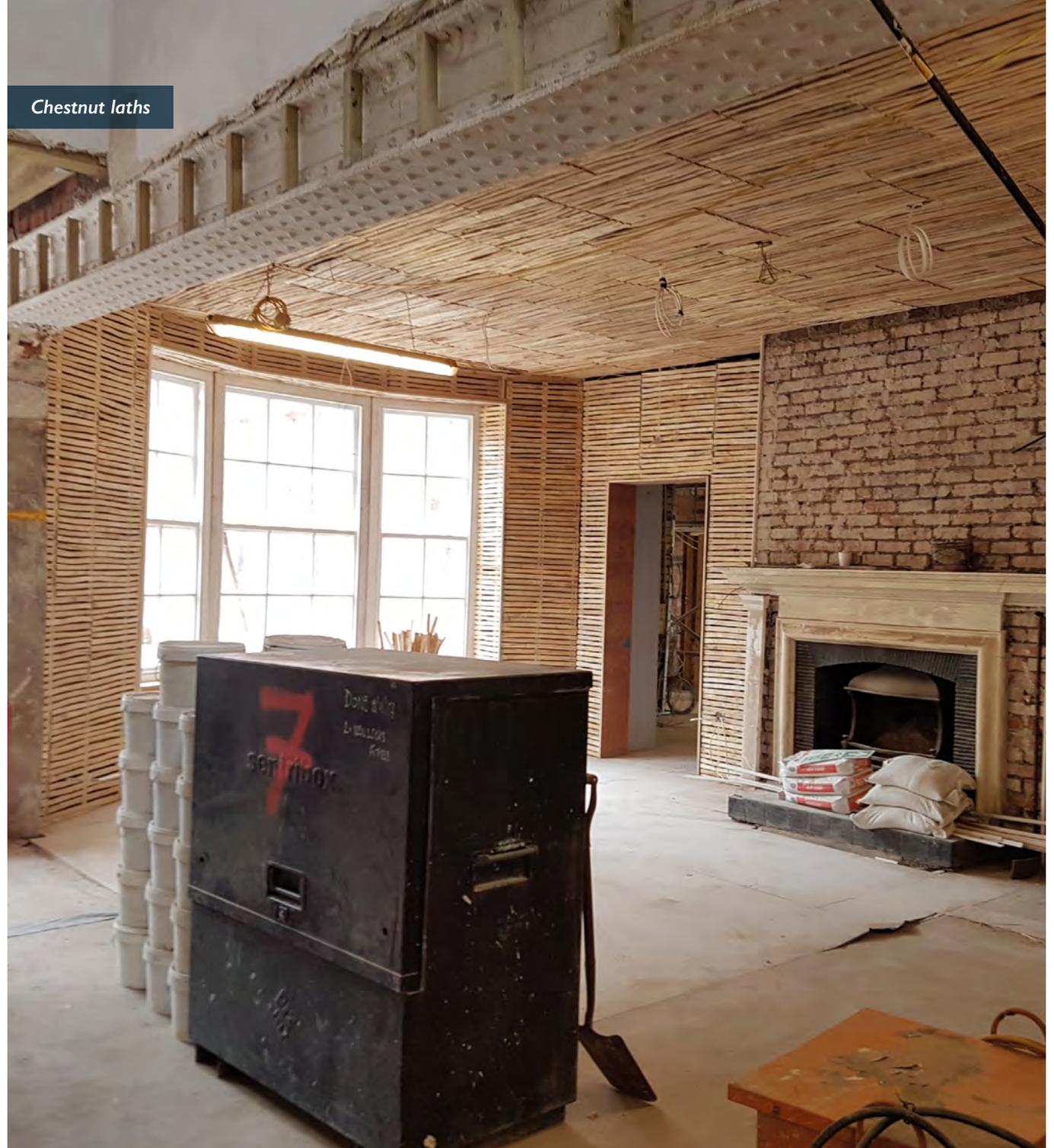
The project went out to tender and in March 2018 ULCCO appointed Ornate Interiors to undertake the replacement of all plaster work to the internal areas and external render to the west and south elevations.

In November 2018 around 1200m<sup>2</sup> of chestnut laths were fixed to all ceilings and beams. The laths were fitted a “thumb distance” apart to allow the first (scratch) coat of lime plaster to form a key to the back of the laths. Wood lath backgrounds should be well wetted the day before and again 2 hours before work proceeds. The constant principal is that at no time should the lath be so dry that it will absorb moisture rapidly from the first coat when it is applied.

Before plastering starts it is essential that all laths are sound and securely fitted and any new laths should be laid so as not to create long continuous joints and they should be left a few millimetres short of each other to allow for swelling when wetted.

The lime plaster under coat, or scratch coat, consisted of one-part fat lime (putty lime) to two and a half parts grit sand (this mix should have stood for at least two weeks and the putty used must be at least 3 months old). Just before the mortar was ready for application horse hair was added to the mix at approx. 0.5 kg per 100 litres.

Chestnut laths



Thickness of this coat can vary according to the overall thickness required but it is normally between 10 and 12 mm. It must not be applied over 15 mm thick. The thicker the intermediate coats the longer the waiting time before each application. A criss-cross key, creating 25-35 mm diamonds, was made with a pointed but blunt wooden lath.

The float coat (second coat) should be applied 4-5 days after completion of the scratch coat, this will however depend on atmospheric conditions. This second undercoat consisted of one-part fat lime to 2 ½ parts well graded sand (this mix should have stood for at least two weeks and the putty used must again be at least 3 months old). Just before the mortar is ready for application horse hair was added to the mix at approx. 0.5 kg per 100 litres.



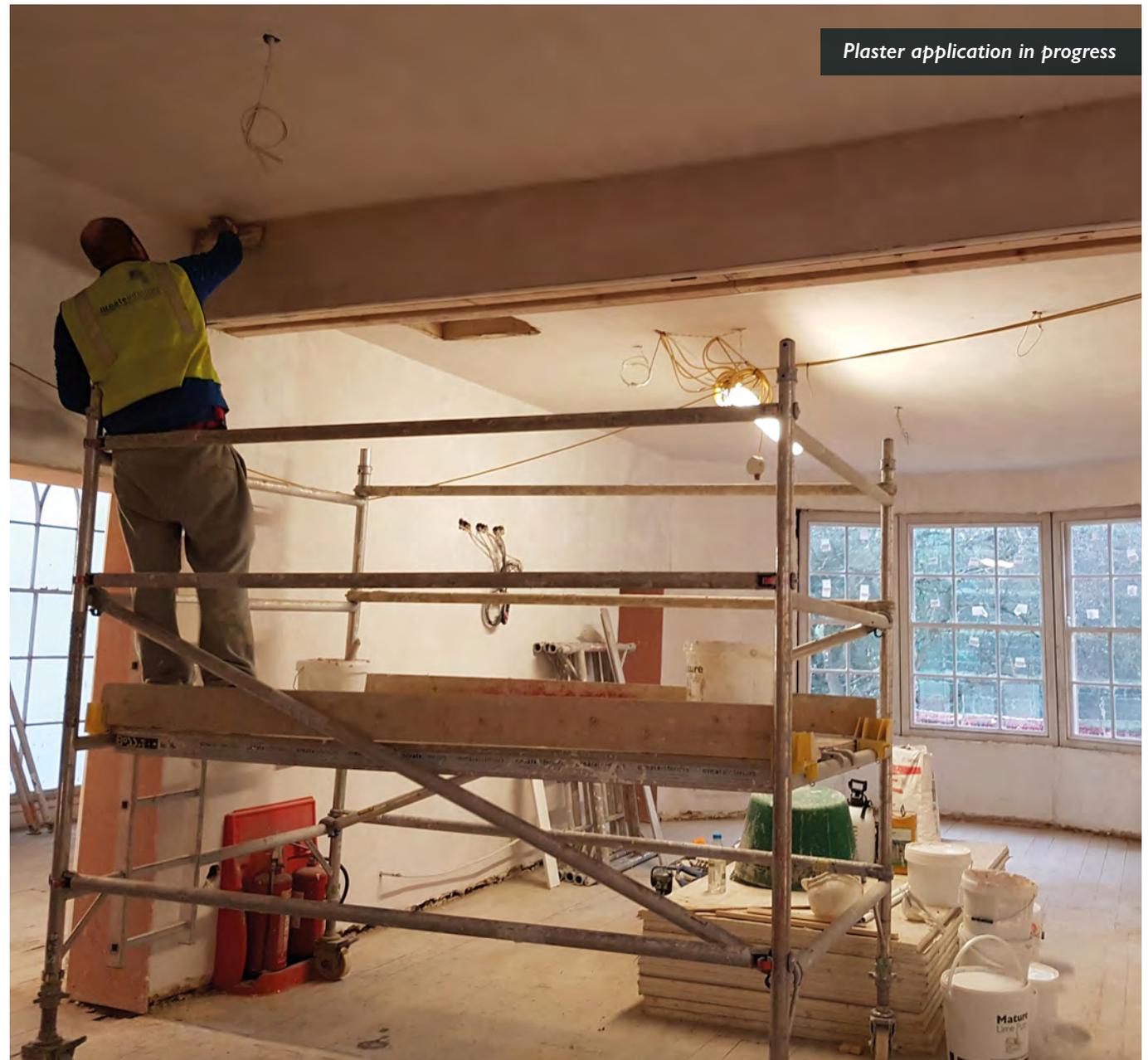
*Scratch Coat*

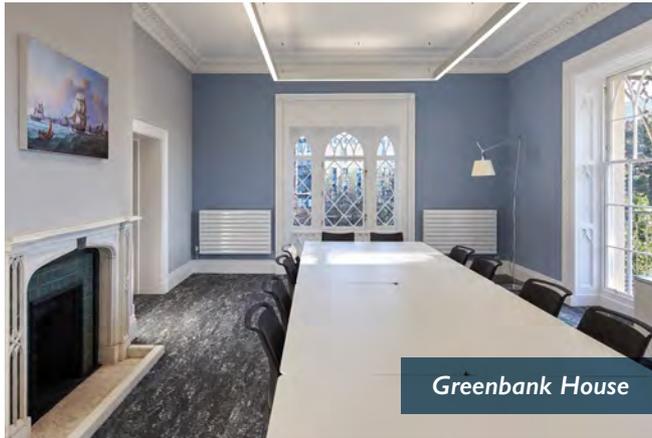


*Lath and plaster after final coat*

The thickness of the float coat was between 6 and 8 mm and scoured back and keyed with a devil float after initial setting. Shrinkage was checked for the first 2 days and the coat lightly dampened, scoured and re-keyed as required.

Before a finishing coat can be applied a minimum of 4-5 days is again required to allow the undercoat to become firm and any small amounts of shrinkage are complete. This is especially critical on timber lathed ceilings.





The finishing coat was a well matured, un-haired mix of one-part sieved lime putty to one-part fine silica sand to give a fine finish. Applied at approx. 2-3mm. Hair must be added to all but the finishing coat.

Lime plaster in most buildings from the second half of the 17th century onwards was applied in three coats, which enabled a flat finish to be achieved. For Greenbank House approximately 180m<sup>2</sup> of lime plaster was applied in 4 coats on to the newly exposed masonry walls. The walls were initially wetted to reduce suction then a first coat, a dubbing out coat, was applied to allow a smooth finish to the scratch coat. The subsequent coats were of the same composition as the plaster applied on to laths.

The plaster was allowed to cure over the winter months before the first installation of mouldings could take place. To aid this process the building was kept at the operative temperature 24 hours a day, 7 days a week to ensure the lime plaster carbonised correctly.

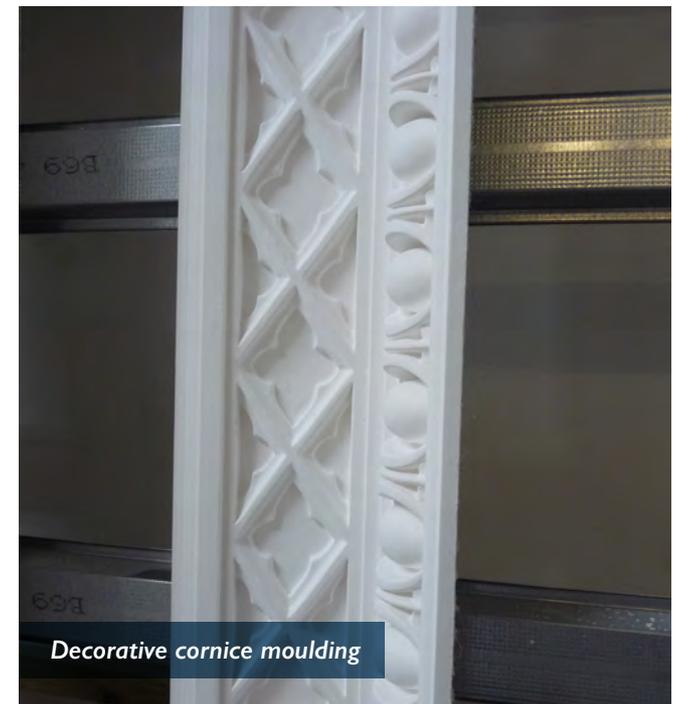


# DECORATIVE PLASTER MOULDINGS



Before any works commenced on site Ornate Interiors' specialist fibrous plasterers had to prepare the original 200-year-old neo-classical and Gothic mouldings to allow for their reproduction. Many layers of paint were removed from the samples. Once cleaned new sample moulds were taken and new profiles drawn out ensuring they were "pin sharp" and ready for approval. Upon approval for construction new moulds were manufactured for each of the individual mouldings.

Although it was unfortunate the original mouldings could not be saved the many layers of paint disguised their original features.

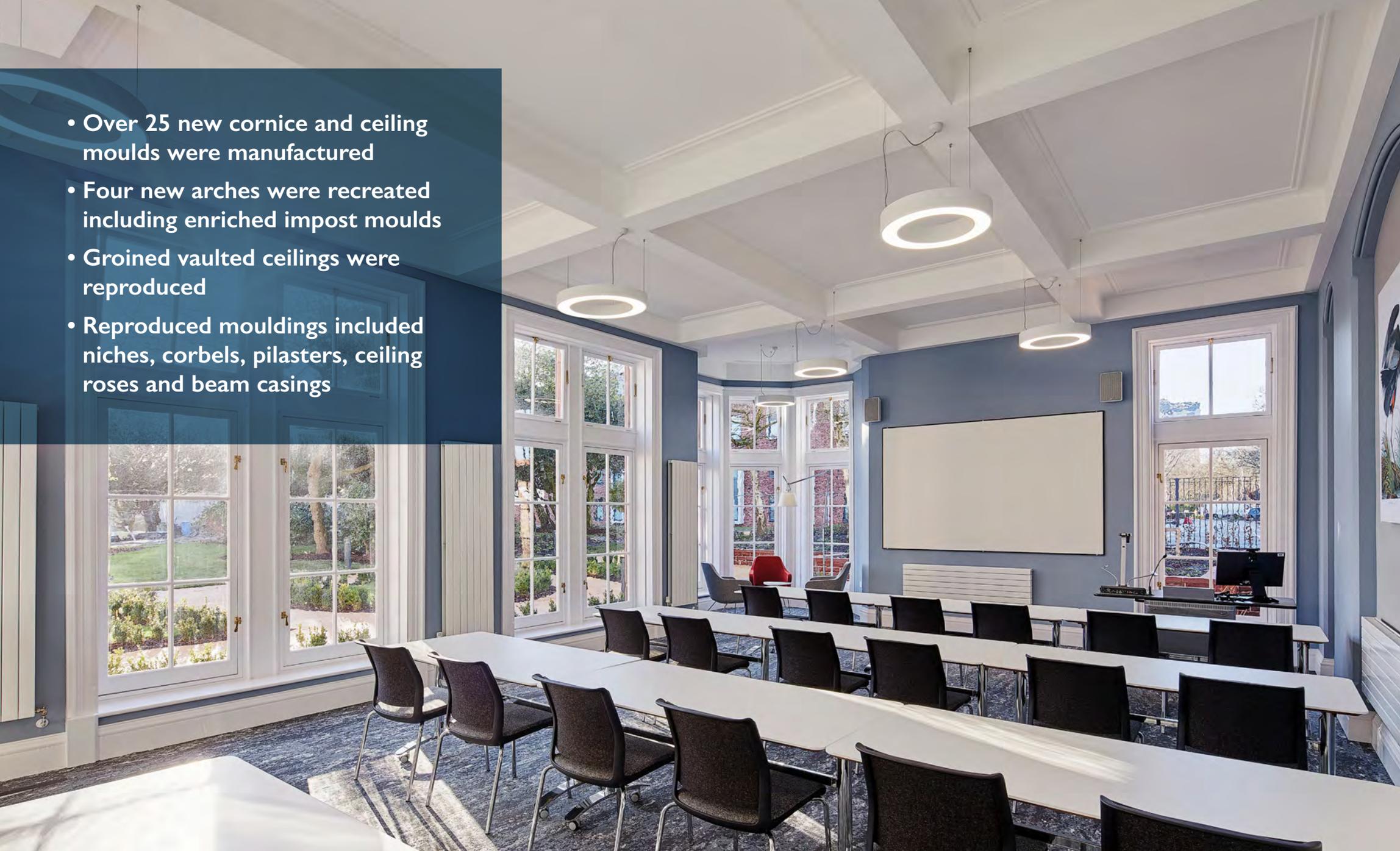




Greenbank House

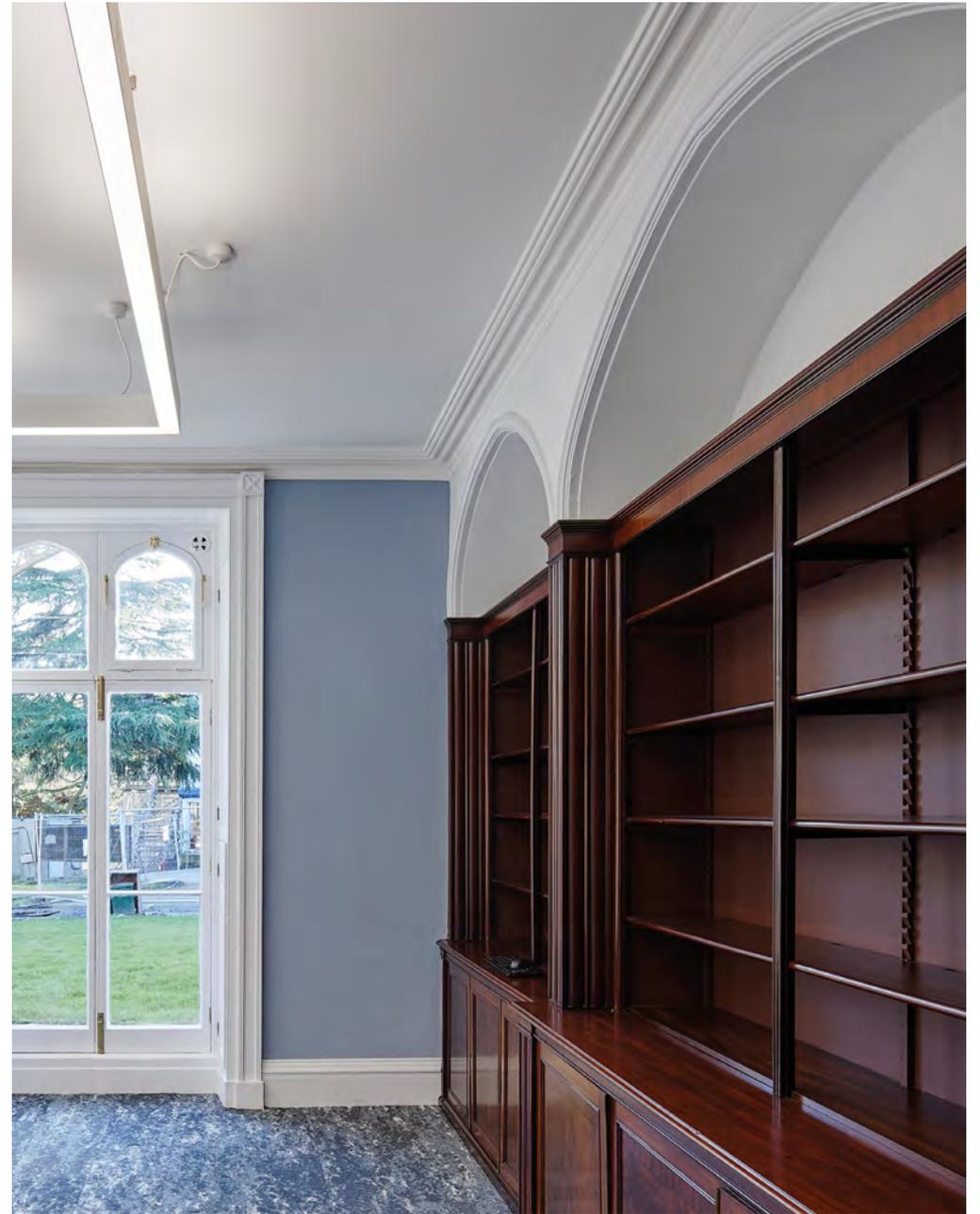
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- Over 25 new cornice and ceiling moulds were manufactured
- Four new arches were recreated including enriched impost moulds
- Groined vaulted ceilings were reproduced
- Reproduced mouldings included niches, corbels, pilasters, ceiling roses and beam casings





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- Over 40 areas were replastered
- New mouldings installed and decorated
- Each phase was completed in a sequence and signed off ready for the University to install their furnishings

# LIME RENDER WITH ASHLAR MARKINGS

The existing render to the “Strawberry Hill” Gothic extension had failed due to many of the supporting walls having been saturated over time and then subject to freeze thaw action. Later over skinning had also failed and required replacement.

Ornate Interiors suggested the South and West elevations be re-rendered with Roman Stucco based render. The render application involved four coats to the following specification: Stipple coat of prompt 3mm thick; scratch coat of Roman Stucco 10mm thick; float coat of Roman stucco 8mm thick; top coat of Roman Stucco 6mm thick.

Roman stucco is based upon Roman cement which is a traditional binder invented around 200 years ago. It sets rapidly with a fine texture and an innate strength which means it can be cut, carved and shaped. Over 250m<sup>2</sup> of render was applied with the top coat marked out with ashlar lines depicting blocks of 230mm high and 570mm long.



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# TESTIMONIALS

“ From a personal point of view it gave me great pleasure to work on this project - from start to finish. From the initial contact with Sheppard Robson, through to surveying the project and liaising with ULCCO and ultimately reproducing all the original mouldings and features. I'm proud to have been involved in bringing back to life the Rathbone family home for the people of Liverpool University to enjoy for many more years to come. It will be a very nice venue to host meetings from and a place of work for the university staff. ”

*Jim Dodd Contract Manager Ornate Interiors*



“ The importance of bringing a specialist contractor like Ornate Interiors on board at the very start of the project cannot be underestimated. Their experience and knowledge of the materials and time requirements for each stage of the works enabled us to put together a realistic and workable programme. From tender stage to completion of works on site, Ornate Interiors have been instrumental in providing advice relating to specification, construction methods and safe working practices. Their expertise was pivotal to the success of the job. ”

*David Waite Project Manager ULCCO*

“ From inception to completion, Ornate Interiors have been interwoven into the Greenbank House journey. Initially surveying numerous styles of exceptionally delicate 200-year-old original plasterwork, all the way through to replication, repair and reinstatement to fully revive this Grade II\* building. The level of craftsmanship and meticulous care with which the work was undertaken throughout this long and complex project has been exemplar. ”

*Richmal Wigglesworth Associate Sheppard Robson Architects LLP*

This project was an excellent training ground for Ornate Interiors' two new apprentices as it encompassed a multitude of plastering skills both on site and workshop based.

Works were completed on December 11th 2019. The main contractor (ULCCO) was delighted with the end result.

The value of this project was £460,000



# ORNATE INTERIORS PROJECT TEAM

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Our thanks go to our skilled team who worked very hard on delivering a high standard for this project.

## **Managing Director**

*Ronnie Clifford*

## **Contract Manager**

*Jim Dodd*

## **Solid Plasterers:**

*Joe Dodds*

*Steve Glynn*

*Lewis Pattison*

## **Fibrous Plasterers**

*Iain Clifford*

*Shaun Chamberlin*

*Neil Williams*

*Jake Clifford*

*Jason Rider*

*Ameha Shewaye*

*Paul Malyon*

*Adam Butterill (Apprentice)*

*Tyler Stafford (Apprentice)*





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