



St Martin-in-the-Fields's iconic west elevation, as seen from Trafalgar Square.

restoration company that recently won praise, and awards, for its work on St Pancras International station, St Paul's Cathedral, Birmingham Town Hall and Cowdray House – took responsibility for much of the restoration work: apart from restoring St Martin's stonework inside and out, it also took charge of a number of specialist subcontractors; the external works and the granite stonework in the dramatic new entry pavilion and light well that now grace Church Path.

Restoring the exterior of any large stone building follows a straightforward plan: a pre-contract survey attempts to identify the key challenges; a scaffold is erected to provide direct access to the structure; the surface is thoroughly cleaned; a more detailed examination takes

building's preservation) and Stonewest to carry out a meticulous survey; adding detail and scope to the survey carried out by the 'wall walkers'. The restoration of St Martin's structure would be based on this survey – the result would be a combination of carefully considered conservation (to preserve); restoration (to either repair or return to original); refurbishment (to make it 'fit for purpose') and development (to sympathetically add and improve). And it was going to be a monumental task: the Schedule of Defects listing around 400 individual items that had to be undertaken just to conserve or restore St Martin's stonework.

Stonewest has a long-standing policy of employing its own direct workforce of committed, highly-skilled, time-served craftsmen and, as restoration work peaked, it had around 25 banker masons working on the site along with a small army of restorers, cleaners and labourers. It's a policy that works well as supervising staff know exactly

THE WHITE CHURCH IS BACK

Just over a year ago, on 30 September 2007, the doors of St Martin-in-the-Fields, one of London's most loved churches, opened to reveal the result of five months' work on what had been a distinctly gloomy interior. The result was breathtaking, moving the Revd Nicholas Holtam, Vicar of St Martin's, to exclaim, "It looks glorious!" It did; and others agreed – the meticulous restoration immediately won the Georgian Group's prestigious award for Best Restoration of a Georgian Church.

But although the renewal of the interior was just one chapter in a project of many, its beauty heightened anticipation about what would be revealed when St Martin's shimmering cloak of translucent polyethylene sheeting was removed. Stonewest, the project's specialist restoration contractor, had transformed the stone floors in the church and crypt – what magic would the company work on St Martin's famous stone facades? Gradually, the scaffolding was stripped away to reveal St Martin's iconic public persona, fully restored and as

pristine as it was in 1726. The 'White Church' was back!

Located on the north-east edge of Trafalgar Square, St Martin-in-the-Fields is justifiably regarded as one of the country's finest historic churches. The masterpiece of distinguished 18th-century architect James Gibbs, it was consecrated in 1726 and has become an architectural and social landmark in the capital and a template for church architecture around the world. But 275 years of exposure to the environment and humanity had taken a heavy toll – by 2001 it was clear that work was needed to preserve its architectural splendour and allow the community work for which it is renowned to continue to thrive. Eric Parry Architects' master plan promised to do just that. It was a bold design that would dramatically increase the size of the church's undercroft to provide modern, functional space; add contemporary features; introduce new vistas and, most importantly, conserve, restore and refurbish the building's fabric.

Stonewest – the specialist

place; a schedule of work is drawn up – then the necessary conservation, restoration or refurbishment work goes ahead.

Nicknamed the 'White Church' when it was built, St Martin's dazzling Portland limestone had become lost beneath a mask of ingrained grime, detritus and sooty carbon deposits that had built up over nearly three centuries. Stripping this away started using the DOFF 'superheated water' cleaning system which removed most of the surface grime along with lines of mastic-based anti-bird gel. This was followed by a deeper clean using the TORC 'low-pressure, wet abrasive' cleaning system which uses a fine calcium carbonate powder mixed with a small amount of water. The jet leaves the nozzle in a swirling vortex motion, the action helping to gently 'massage' grime away. A variety of nozzle sizes allow greater finesse: small for details and reliefs, large for ashlar areas.

Cleaning the structure allowed Eric Parry Architects, Caroe & Partners (the 'Surveyors of the Fabric' and responsible for the

what skills they have available and can confidently assign tasks to the best person for the job. Stonewest also called on its 'Stonewest group' resources by asking St Blaise, one of its two sister companies [the other is Rattee & Kett], to provide specialist conservation skills.

For most of the masons, every day brought a new challenge: they could be repairing the damage caused by a dog-crank one day; indenting the base of a column the next and replacing a unicorn's nose on another (on the west pediment). Although most of the work was done on site – either in situ, on adjacent scaffold or in the two banker workshops that became hives of activity – the restoration of the vermiculated ashlar wall running along Duncannon Street was a notable exception. Such was the scale and complexity of the task that the wall was removed from site and temporarily reassembled so that the detailing on the new panels could be accurately matched with its neighbours.

Probably the most formidable task that faced Stonewest was to

repair the damage caused by the use of wrought-iron 'dog-cramps'. These long 'staples' had been used to tie adjacent blocks of stone together, helping to stabilise the structure during its construction. The cramps sat in shallow recesses cut across the top of the blocks, their downturned ends bedded in deep pockets with lead. Moisture had attacked the iron causing it to corrode, the resulting expansion creating incredible pressures that had caused some of the blocks to fracture. The surveys had identified two separate rings of cramps running around the building at mid-window height and others around the circular ventilation window in the east pediment. And an unwelcome surprise waited in St Martin's famous tower: what was thought to be a relatively easy-to-replace ring beam turned out to be a collection of interlaced dog-cramps.

Repairing the damage was painstaking work involving cutting away the loose or damaged stone on the surface, exposing the rusting cramp by careful stitch-drilling and then easing its remains out of the structure. If it was to be replaced with a modern, stainless-steel cramp – as was the case in the tower – then this was installed and bedded using Prompt, a natural, fast-setting lime mortar and binder. The cavity was then dressed and an indent carved to create an invisible repair. Although some locations were quite straightforward, others were quite the opposite: the circular ventilation window in the east pediment was found to be surrounded by a lattice of more than ten cramps, some nearly a metre long.

St Martin's suffered bomb damage during World War Two and much of this had been hastily and cheaply repaired. The East Window was a typical example and the coloured-glass window installed during the 1940s was to be replaced with one more true to the original. Structurally, the depths of the reveals around the main window were too deep and, along with the two secondary windows, had been repaired during the 1940s with concrete. Stonewest removed the concrete, trimmed the openings and restored the reveals with freshly-carved Portland stone plinths, capitals and cornices ready to take the exquisite new window

created by Shirazeh Houshiary and Pip Horne.

At the other end of the church, the famous steps leading up to the west portico presented their own unique challenge. Access to the church had to be maintained which meant the well-worn steps could only be restored in sections. To do so, each individual stone was lifted and its viability assessed – if it was reusable, it was re-bedded; if it was badly worn, it was turned over and the new top surface faced; if it was beyond repair; it was replaced. But 'replacement', of anything, anywhere, was a last resort, a final option that was used sparingly. Inevitably, some new stone (either new or reclaimed) had to be used but, whenever possible, Stonewest recycled and reused any stone that became 'surplus to requirement' during the project.

The cleaning also revealed another secret. St Martin's had originally been pointed with lime mortar which, along with the rest of the exterior, had become dirtier as the years slipped by. But, at some time, perhaps during the 1940s, large areas had been repointed using a hard, cement-based pointing which had been coloured to match the grimy original. From a conservation perspective, cement-based pointing is detrimental to the building's structure and from a restoration perspective, areas of 'fake' black pointing were as wrong as they were unsightly. Stonewest painstakingly raked out the cement-based pointing and replaced it with a lime mortar mixed to a specification supplied by Caroe & Partners.

So, after seven years the renewal of St Martin-in-the-Fields has drawn to a close – and who better to provide the final words about its restoration than its vicar, the Revd Nicholas Holtam: "St Martin's looks beautiful! This has been an exhilarating and deeply satisfying project for everyone working on it, including Stonewest. Using a mixture of traditional craft and the latest technology the work of St Martin's has been secured for the twenty-first century."

Email: info@stonewest.co.uk

Web: www.stonewest.co.uk

On-line Enquiry no: 406
www.sheenpublishing.com



MASONRY FACADE SPECIALISTS CLEANING, REPAIR & CONSERVATION



Principal Masonry Contractor for St Martin-in-the-Fields

- Principal Contracting
- Major Alteration
- Masonry Cleaning
- Flooring
- Masonry Restoration
- Brickwork and Terra-cotta
- Conservation
- Special Works Department
- New Build Masonry
- Consultation and Design

Lamberts Place, St James's Road Croydon CR9 2HX
info@stonewest.co.uk www.stonewest.co.uk Tel: 020 8684 6646

On-line Enquiry no: 009

www.sheenpublishing.com



The famous steps leading to St Martin's main entrance inside the west portico. Most of the steps were turned over and refaced rather than replaced with new stone.



The East Window. Beautifully carved indents were added to replace concrete and correct the depth of the reveals in the three windows.



Man at work! A mason cutting a new vermiculated panel.