Our John Betjeman Award celebrates gentle repair in places of worship in England and Wales. Judge and SPAB guardian, Rachel Morley (right), considers the shortlisted projects of 2017 and reflects on a worthy winner.

I’ve been looking at churches for as long as I can remember. I can’t remember why I started, but once the mania gets you, nothing can get rid of it”, declared John Betjeman in his 1960 ABC of Churches television series.

In this show, Betjeman shares his love of English parish churches. He viewed them as more than mere matter. Unsurprisingly, he saw churches in far more poetic terms. To him, fan vaults spring like fountains that never fall, nightmare figures of marsh and forest scurry along woodwork and neglected walls cry out to passers-by.

Betjeman was a key member of the SPAB Committee between 1952 and 1977. In his memory, the Society established the John Betjeman Memorial Award in 1990 to celebrate excellence in church repair.
This year, a record-breaking 29 entries were received. After much debate, the panel of judges agreed upon a shortlist of three projects. These comprised repairs to stone-tile chancel roof at the church of Blessed Virgin Mary, Portbury, Somerset, conservation of 15th-century rood screen panels at Holy Trinity, Torbryan, Devon, and repair of the portico roof at St Pancras New Church, London.

At Portbury, Red Pennant sandstone tiles covered the chancel roof. Despite being overhauled in the 1960s, the roof was already nearing the end of its serviceable life. Poor setting out had resulted in water penetration, nail fatigue and batten decay, while the tile-stones were cracked, delaminated, slipped and missing.

Efforts to retain historic fabric were admirable, with the team managing to salvage enough tile-stones to cover the south slope. As Red Pennant stone is no longer in production, the judges were impressed by the team’s thorough understanding of existing materials and their extensive research to source an appropriate, compatible alternative. Indeed, most impressive was the determination to maintain the character and appearance of the chancel by using appropriate, responsibly-sourced traditional tile-stones.

In 2013, two medieval panels were stolen from the rood-screen at Holy Trinity, Torbryan; an act which left a third severely damaged. Astonishingly, two years later the panels were recovered – albeit as a mass of timber splinters and paint crumbs. Extensive and urgent conservation was needed to reassemble and consolidate the saintly portraits before bespoke tulipwood battens were installed to the backs of the panels to provide additional support.

The judges were truly overwhelmed by the skill, delicacy and patience demonstrated in stitching the panels back together, as well as the superb visitor interpretation which has been installed in the church. The entire screen looks spectacular and, as a result of the theft, recovery and conservation story, the church is now very well-visited.

The scheme at St Pancras New Church, known as The Portico Project, involved the repair of the west portico roof, stonework and terracotta enrichment of this Greek Revival icon overlooking the busy Euston Road.

The works were complex with several major issues at play. Questionable previous modifications had resulted in poorly managed rainwater run-off. This in turn had disintegrated the fine terracotta work beneath and corroded fixings. New pieces of terracotta were made by skilled craftspeople, and through research, a recipe for future replacements has been established.

Cleaning trials were undertaken to devise a process to remove the majority of the carbon crusts on the terracotta, while ensuring that the fire skin was not eroded and the patina of age of the terracotta not erased.

Indeed, it was this thoughtful and thorough approach which defined the project and led to unanimous agreement that St Pancras New Church, exemplary in all aspects, must be the winner of this year’s John Betjeman Award.

The time and effort which was given to understanding the construction of the Portico – the development, alterations, inefficiencies and unique details, as well as the materials used – was hugely impressive. This informed and justified every step of this complex suite of repair and re-engineering works.

We were especially pleased with the team’s forward-looking approach – not only developing a recipe for this rare form of terracotta to inform future repairs, but also supporting the craftspeople that possess these skills.

It is especially poignant to make this award for excellence in conservative repair in a part of London which John Betjeman fought so hard to protect throughout his lifetime. Read the report on the following pages to find out more.
Architect Alan Chandler describes the complex and meticulous repairs that impressed the judges of the 2017 John Betjeman Award

“St Pancras Church has been one of the treasures of Central London since it opened in 1822, but the original architects (father and son William and Henry William Inwood) had no idea that the Euston Road would become one of the most heavily polluted roads in the country. This has caused – and still causes – severe damage to the decorative features of the building. We were determined that the repairs to the roof, stonework and terracotta should preserve the original grace and beauty of the church. In an area blighted by poor development, the classical elegance of the church continues to lift the heart, and to remind people of the timeless values of faith, hope and love in our busy world.”

Revd Anne Stevens, of St Pancras Church

The Portico Project dealt with the impact of time on the fabric of the “new church” of St Pancras, an impact hastened by ineffective lead detailing to the portico roof and the effects of acidic rain on the weathering faces of the stone, leaving the distinctive terracotta enrichments subject to sometimes severe decay or loss.

Our approach responded to William Morris’s key proposition: “The building is a document of its time and of its making” – here he asks us to respect the legibility of a building’s life for all to read and understand. How we do this requires us to “repair not restore”, and when we do repair we need to be sensitive to how that repair is made and how it influences our comprehension of the whole – to “straighten out” or leave “as found”?

In three consecutive quinquennial inspection reports, beginning in 2002, the “extreme length of the lead bays” (double the recommended length) on the roof of the portico was observed and cracking of the lead due to thermal

Right: St Pancras Church, Euston – winner of the SPAB’s 2017 John Betjeman Award
Betjeman Award

movement was monitored. A series of welded repairs were made during this time, with the outer bay being covered with a layer of bonded asphalt that was only partially successful in preventing water ingress to the timber framing and top face of the plaster soffit below.

It was clear that the roof had been modified at some point after construction, as each of the antefixes along the flank of the portico has a specially detailed rebate with fixing holes to accommodate the end of each timber roll – now unused. With the introduction of a shallow gutter behind the antefixes, they were left to sit in isolation on an asphalt covered cementitious render, allowing for water penetration and unmanaged run-off to corrode the leading edge of stone and the terracotta enrichment directly below.

Lead was specified to match the existing (Code 7 sand-cast), re-using the existing timber boarding and rolls where possible. When stripped, the water damage to the timber was allowed to dry out and almost all of the boarding was retained in situ. The new bay lengths conform to Lead Sheet Association guidance, however the distinctive and original (non-compliant) timber roll profile was retained in situ. A good deal of time was spent on the roof assessing the way water was behaving around the antefixes, and devising a lead cloak for each which utilised the rebate for the original lead roll to fix a timber ground, allowing clips to be secured and the cloaks to be restrained. Lead drips were then dressed between the antefixes, even between the final antefix and the lion head enrichments at the corners (which appear to be classical “sima” – upturned classical roof edges – but do not perform the function of water discharge). The development of these details was indicated as part of the contract tendering, but were defined on site in collaboration with expert lead worker Dean Lock, who contributed a great deal to the execution of our ideas. These drips are imperceptible from the ground and will, over time, allow the stonework and terracotta below to dry out – a future and more extensive façade repair programme can then consolidate these areas.

In parallel to the poor condition and performance of the lead, the erosion of the Portland stone copings around the northern and southern porches had allowed water ingress to the parapet walls, advancing iron cramp corrosion on the inner face of the parapet cladding and
Above: Original larch boarding and lead roll.
Left: water corrosion to the Portico edge.
Right: Dressing lead around the antefixes incorporating later gutter detail
terracotta enrichment on the outer face. Shell inclusions and the bronze cramps projected up to 10mm from the upper surface of the copings, left marooned by the dissolving action of the water, indicated how much of the surface has been weathered away by highly acidic rain (the Euston Road is one of the most highly polluted urban thoroughfares in Europe). The erosion of the stone on the inner edge of the copings was so pronounced that they were now almost flush with the inner face of the parapet, shedding nothing.

Removal of the cramps and spalling repairs at the top of the inner parapet stonework was directly under the copings, making the minimal removal of stone to affect repair difficult. Our inspection also revealed that iron cramps had been used to restrain the terracotta enrichment below the coping stones, their corrosion leading to the terracotta blocks loosening and occasionally falling to earth (many held by the Church in an “archive” awaiting future reinstatement).

Lifting and resetting the existing copings allowed not only minimal removal of material to achieve cramp replacement, but also for the cleaning and securing of the water affected terracotta on the outer face of the wall. This course of action was an issue for us – the stones had never been disturbed so their removal and replacement was invasive.

The deciding factor was the ability to deal with the totality of issues: water ingress, corroding iron cramp removal and the deterioration/falling of the terracotta elements. With all three tasks requiring urgent attention, the careful numbering, lifting and resetting of the coping stones was specified, and the scaffold installed to facilitate their safe and careful lifting and setting aside.

There were a number of cramps holding the inner parapet wall cladding that were yet to corrode to the point where stone was being pressurised by iron expansion. Therefore, only cramps where evidence of localised cracking, iron oxide leaching or spalling would be cut out. Where no evidence of corrosion was evident, iron cramps were left in peace.

The presence of a number of original copper cramps in some locations added to the complexity. In addition to facilitating the replacement of cramps that had damaged the stone, resetting the copings allowed for the insertion of a lead drip to the inner face of the parapet. This non-original detail would augment the ability of the eroded copings to throw water clear of the wall, the stone repairs and the remaining iron cramps, prolonging the life of all three. A number of Portland stone edge pieces were reinstated, the location corresponding only to areas where local erosion of the stone created water run-off that threatened or had already made significant damage to the terracotta enrichment below it. The eroded profiles were respected but not imitated, the new pieces unmistakeably new, sitting slightly proud of the adjoining original material.

Orientation as well as the erosion of the copings played their part in the deterioration of the terracotta, the nature of its handcraft manufacture means that while one block looks like new, its neighbour could be entirely eroded due to some inherent frailty in that particular clay or its particular firing. More often we found that the terracotta was covered with heavy carbon deposits that encrusted their enrichment. Morris coined “scrape or anti scrape” as a provocation for us to articulate why we should – or should not clean historic buildings. The carbonation present on the terracotta is a solidification of airborne pollutants, a concentration of the chemistry that is
slowly dissolving London. Its removal is a means of curtailing the loss of this exquisite material. Our judgement was to balance the removal of the damaging deposits with the need to respect both the integrity of the surface and the visible evidence of the age of the material.

A sequence of carefully executed cleaning procedures was developed with Sally Strachey Historic Conservation and tested on a terracotta element that had fallen from its location. Based on the results of this 5 per cent concentration ammonium carbonate poultice and ‘Thermatech’ cleaning trial, a process was determined which removed the majority of the carbon crust and associated blackening while ensuring that the fire skin was not eroded and the age of the terracotta not erased.

As architects we specified the recording, numbering and careful removal of the terracotta elements while the copingstones were being reset, with each piece cleaned as per the trial. The elements were then re-fixed in place using stainless steel cramps with a lime mortar bedding.

The interest Historic England has shown in the St Pancras terracotta cleaning and repair will establish a series of trials at roof level, contributing original knowledge about the cleaning and repair of this wonderful material in challenging urban environments. It is gratifying as it means lessons learned from our teamwork can benefit the repair of terracotta in other projects.

Only one new piece of terracotta was needed within the scope of the “Portico Project”, made and fired by skilled craftspeople at Darwen Terracotta in Lancashire. The new element developed a colour recipe we can use in the future to deal with other missing or corroded pieces elsewhere on the building.

Is it correct to replace when the loss of fabric to the effects of time are part of the readability of the building? An ethical question – in the case of St Pancras the unity of the architectural expression and the quality of the terracotta as a craft-art in its own right meant that for us, reinstatement was the right thing to do. St Pancras has some of the finest terracotta enrichments in the country and it is hugely important to ensure our specialists in terracotta can contribute to work of this quality, or it will become a skill of the past.

Reinstating the terracotta itself brought Morris’s provocations once again to the fore. Over time the length of the building had relaxed the precise geometry of this exemplary Greek revival church – the straight lines of terracotta enrichment curving gently along the length of the building. To reset the terracotta perfectly level would be to obscure the history of the church. This sensitivity to the implications of “repair not restore” was challenging for the contractor as they were required to neither straighten nor imitate misalignment, but to respond to the way the stonework had settled over time. We got there.

The “Portico Project” was an active collaboration between the St Pancras team led by Revd. Anne Stevens and Dorothea Hackman, partnering architects Arts, Lettres Techniques and Benjamin + Beau champ, the QS Sawyer and Fisher, surveying and cleaning trials by Sally Strachey Historic Conservation, main contractor and stonework by Pierra, leadwork by MS Lock and Sons and terracotta by Darwen Terracotta and Faience.

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