

## Repair and Conservation of a medieval window in Abingdon

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No. 26/26a East St Helen Street in Abingdon, Oxfordshire (formally Berkshire) is a former medieval merchant's house and a unique survival. The property was acquired by noted local historian Miss Agnes Baker in 1946 as a 'condemned slum', and bequeathed to her sister Mary Baker in 1955, and was subsequently bequeathed to Oxford Preservation Trust (OPT). The front consisted of a central hall flanked by cross wings with latest dendrochronological felling date of spring 1429. A rear range built onto the southern cross-wing produced a latest felling date of spring 1431. The hall had internal jetties on both sides but was regrettably converted to an open carriageway in the nineteenth century. A very interesting feature was a first-floor gallery linking the two cross-wings at the rear of the hall, lit by a three-bay window, each consisting of two lights with traceried heads. Similar single-light traceried windows survive either side of the projecting southern cross-wing at the front. The ceiling below the gallery floor has Baltic V-edged panelling imported from the Baltic dated to c.1430s. The interior is noted for its sixteenth century wall paintings. It was the need for the repair and conservation of the traceried medieval window to the gallery that forms the basis and impetus for the sequence of repairs described below.

Various works to repair the building have been carried out since 1947. However, over the years further water ingress and decay has occurred. By 2019, Debbie Dance, Director of OPT realising that further repairs were necessary, grasped the nettle and commissioned first a survey of the building including the traceried window, and then a comprehensive scheme of repairs to the roof, wall, guttering and window, after consultation with the relevant authorities. The primary goal was to retain as much of the original medieval fabric as possible. The initial inspection and survey were crucial steps in understanding the problems. This led to the local council permitting limited 'opening up' to further assess the extent of the likely remedial works which would then enable the necessary drawings and schedules of repairs to be drawn up. Listed building consent was required because the works were more than minor localised repair to a mullion or two, but rather a comprehensive repair of the mullioned and traceried window which was dismantled and repaired, partially off site. Whilst the window had been protected for centuries by the lath and plaster externally, there had been considerable deterioration of the mullions and carved traceried window heads now since uncovered. The right-hand section was so bad that it needed a large amount replaced from the c. 1950s work, which was crudely done and not well integrated. The middle bay was also considerably eroded, with the northern light almost obliterated externally. Remarkably the left-hand bay was still quite well preserved.

It was decided to abandon the existing c. 1950 leaded lights and instead to fit a bespoke glazed double-sealed pane in a narrow metal sub-frame set within the original internal shutter rebate. This would allow the window to be viewed externally as originally configured, and internally it could be viewed through the glass and the back face of the traceried heads could also be viewed internally, the first time since being covered with plaster. This was a fundamental design change as well as alteration to the character and appearance of the window and therefore a decision taken in close consultation with OPT and the local conservation officers for VOWH/SODC, Sally Stradling and Emily Tucker, along with Historic England, the house being listed Grade II\*.

Although the primary goal was to retain as much of the historic fabric as possible, it was inevitable some elements would need to be repaired, in like-for-like materials. The front face of the RH main stud/mullion for example was very badly decayed and was to be refaced, leaving the inside part including the shutter rebate intact. This did then allow the middle and right-hand bay window heads to be released where they could be carefully repaired on the

bench. Rather than to try and take the easiest option of replacing the whole with new, the decision was taken to carefully replace only the right hand light of the centre bay, and only the outer face, retaining the original inner face intact. As for the northern bay head, the crude twentieth century repair was replaced with a new section, properly jointed in and carved. It was essential to match the slow grown radially-cut oak with like, and it took some considerable searching to find a piece of similar oak that was not kiln dried, but only air dried, as it was essential to match the moisture content of the timber as well as conversion. Whilst the window heads were out, samples for dendrochronology were taken and through dendro-provenancing a Baltic source was identified for the original timber heads.

The window sill rail to the centre bay was almost gone due to rot, and the protruding end of the northern rail also required major repair. This was now possible, in that they could be inserted and then the moulded face repair inserted, clamping all these items in the correct articulation. This repair was then screwed with stainless steel screws from the back face within the existing shutter rebates.

Once the main timber frame was repaired and back into position, the later north rear wing which had been retilled in the 1990s was addressed, and especially the roof eaves and guttering previously referred to. Given the good access scaffold, OPT decided to have the eaves, soffit board, and guttering realigned as best as possible to prevent water running against the external wall of the gallery, and for the gutter to flow to the outlet pipe. When the tiled roof was being repaired, it was again suggested and agreed with OPT and the conservation officer to incorporate a secret gutter against the window, allowing the tiles to be kept away from the historic window.

Once the main frame window sills were in place, timber sub-sills were inserted, care being taken not to cut into the original mullions but giving adequate drip externally. This followed the mid-twentieth century sub-sill that ran along the line of the roof. Once these were in place, lead trays were fabricated to cover these sub-sills, turned up and fitted into small grooves cut into the jambs. The lead used was hand-cast code 6, which was soldered and welded at all joints.

The original mullions which had been temporarily removed were replaced, with the bottoms being soaked in creosote where abutting the lead sills. Onto this, a steel window frame of steel angles and flats was fabricated and set on the lead covered sub-sills and bedded with grey Calder lead sheet sealant. It was similarly set and bedded with the same material into the rear shutter rebates in the jambs, and to the underside of the wall plate, behind the carved window heads. This resulted in little of the frame to be visible externally or internally.

Into this sealed units of toughened 4mm glass (inner sheet a 'K' glass for energy efficiency) with 6mm spacer bar inside. A metal frame of aluminium 7/8" external channel was bonded around the sealed unit by the glass supplier, with integral lifting handles on the sides. It had been intended to have these metal framed glass units hinged to the metal sub-frames, but it was discovered on opening up that the ceiling sagged internally, meaning that the heads would have obscured part of the carved window heads. Therefore, it was decided that the inserted windows were to be non-openable and fitted into the metal frames with compression sealing foam tape to prevent water from penetrating inside (we hope). These glass units were held in place with oak blocks which could be unscrewed for occasional cleaning.

The metal window frames and glass edgings were coated in black Hammerite paint. Externally, creosote had been used for the crude mid-twentieth century repairs, and whilst there is no better preservative for timber, the smell and colour change precluded its use. Instead, a clear preservative was used.

This work took place during this past year of COVID19, which had resulted in a shut-down from March to July, furloughed staff, and a second lock-down which all caused considerable delays and expense to the project. Fortunately, it was possible for the decorated window heads to be repaired enough by the time of the first shutdown to allow most of the carving to be done off site by Callum McCaffery, who undertook most of the work, assisted by Mark Strickland, Karl Bettles, and Logan Ball. Leadwork was undertaken by Steven 'Chico' Benson, glass by Advanced Glass of Reading, and lime plastering by Michael O'Reilly. Last but not least the tenants deserve some considerable credit in putting up with such an extended project which started out as minor repairs to the window itself and evolved into major frame and roofing repairs.

All this work took place thanks to the generosity of the William Delafield Trust through their support for OPT. A condition of the lease is that the property is open to the public by prior appointment and on certain open days- to view please contact OPT via the website: <https://www.oxfordpreservation.org.uk/content/26-and-26a-east-st-helen-street>