

# The Allestree Library at Christ Church, Oxford, and its Tiled Pavement

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The Allestree Library at Christ Church is one of Oxford's hidden treasures, in several different ways. Here, a small barely-known room above the south side of the cathedral cloister contains not only a priceless collection of early manuscript and printed books, but also a remarkable pavement consisting almost entirely of medieval floor tiles. These appear to be scarcely known even within Oxford, let alone in the wider academic community. This short paper seeks to redress that balance by providing an introduction to the medieval tiles. The study has been carried out in conjunction with the TileWeb project; further details of this can be found at <http://tileweb.ashmolean.museum/>.

## THE ALLESTREE LIBRARY – THE ROOM, THE COLLECTION AND THE FLOOR

The Allestree Library at Christ Church is housed in a small room adjacent to the Old Library, over the south walk of the cloister. It is accessed by a spiral staircase between that building and Wolsey Tower, via Meadows Quad. There is a small ante-chamber immediately off the staircase, with fine panelling and a good-quality fireplace in its east wall. A short, narrow passage leads through this same wall immediately to the south of the fireplace, into the Allestree Library itself. This is a long, narrow, gallery-like room: the upper parts of monastic cloisters were often converted into long galleries of this sort after the Dissolution, as at Lacock Abbey (Wilts.). It is not known whether there was a room or set of rooms above the south cloister walk at Christ Church (or more correctly, of course, St Frideswide's Priory) in the medieval period, but corbels (now internal) at the top of the south wall may relate to the original medieval roofing over the south cloister walk. They certainly do not relate to the current library roof, which appears to be at least broadly contemporary with the room.

The external fabric also suggests at least two phases of work. The ground-floor masonry is of good quality ashlar construction pierced by three large fifteenth-century windows and a door, with buttresses between them. The masonry of Allestree, by contrast, is a mixture of coursed and semi-coursed re-used ashlar and rubble; a late sixteenth-century date for this extension upwards has been suggested.<sup>1</sup> The masonry here is pierced by four mullioned windows of post-medieval date, set to the east of centre over the four openings below. These provide surprisingly good natural light into the room. The window frames do not relate well to the masonry they are set within, however, perhaps suggesting that they are insertions. There is indeed some evidence for an earlier (now blocked) window between the first and second windows from the west. The 'new' windows may have been inserted when the library came into being.

On documentary grounds, it seems clear that the Allestree Library was built over the south cloister walk a little after the late sixteenth century. In his *Miscellany*, W.G. Hiscock stated quite unequivocally that the Allestree Library (then simply known as just the 'chamber over the Cloister') was built in 1612.<sup>2</sup> The disbursement book for the year 1612/13, though scarcely providing a full building account, does indeed contain entries relating to the new chamber

<sup>1</sup> *An Inventory of the Historical Monuments in the City of Oxford*, RCHM (1939), p. 46.

<sup>2</sup> W.G. Hiscock, *A Christ Church Miscellany* (1946), p. 215.



*Fig. 1. The Allestree Library on the floor above the south cloister walk at Christ Church, seen across the cloister itself. The spiral staircase is on the right.*

(which would become the library later in the century).<sup>3</sup> There are at least two for timber, and one for the chimney.

The collection housed in the room is a separate library bequeathed by Richard Allestree in 1681 for the use of the Regius Professor of Divinity and his successors. In 1946 Christ Church formally took over its administration from the university. Although the library has a bias towards theology, it also contains books on many other subjects, including classics, science, medicine, mathematics and patristics. A card catalogue was compiled by W.G. Hiscock, and the cards are now kept in the East Library. There is no subject index, and the catalogue does not generally include details of printers or publisher. Among the volumes there is a thirteenth-century manuscript of the sermons of St Bernard. The room also houses 138 books formerly owned by Henry Hammond (1605–60) and the parochial library of Wotton-under-Edge, Gloucestershire, deposited for safekeeping. This was originally left by John Okes (d. 1710), a St Edmund Hall man, to Wotton; there are about 300 volumes, chiefly seventeenth-century theology, with a bias towards Oriental studies. Many of the books bear the names of members of the Cholmondely family, who held the patronage of Okes' living at Whitegate, Cheshire, which he held from 1665 until deprived as a non-juror in 1689.

As already mentioned, the room is long and narrow – 12.9 metres long (east–west) and 3.27 metres wide internally. The entrance passage protrudes into the room at its south-west corner. It is plain except for a fireplace at the west end (which thus backed onto the same chimney as

<sup>3</sup> Christ Church Archive, xii.b.57, ff. 41v.-42, 56v.



Fig. 2. A contemporary portrait of Richard Allestree, right, with John Fell (left) and John Dolben (centre). Courtesy of the Governing Body of Christ Church, Oxford.

that in the antechamber to the west). There are bookshelves against the full length of the south and east walls, almost to full height, and between the windows in the north wall as well. In all instances the bookshelves rest on the tiled floor: this was clearly in situ before the shelves were put in. The sets of shelves have different detailing, and may be of different dates: the southern set has a well-moulded cornice and fielded pilasters, the shelves between the windows have dentilled cornices, but the eastern set is plain. This is probably the sequence of the shelving, from earliest to latest. Three further free-standing and generally quite plain bookcases run along the centre of the room's long axis; these may be contemporary with (or later than) the eastern shelves. The central cases still rest on the remnants of a linoleum floor covering; when the rest of this was removed is not known, but it could explain why the medieval tiles are not better known.

Until very recently environmental conditions within the Library were a cause for concern given the significance of its book collection. The room was prone to huge fluctuations in temperature and humidity, which were potentially very damaging to the precious collections housed there. A generous gift by a private benefactor, and an equally welcome grant from the Marc Fitch Fund, allowed Christ Church to tackle these problems in 2011–12. The thermal qualities of the windows were improved, new heating was installed to raise and stabilise temperature, and a dehumidifier to reduce humidity. At the same time as these improvements (which had no impact on historic fabric) were being planned and implemented, the opportunity was taken to survey and research the tiled floor.

The floor survey was carried out in several stages in tandem with the improvements. First, some initial basic recording and assessment of the room was done towards the end of 2010. A



Fig. 3. An interior view of the Allestree Library, looking east, with conservation work in progress, October 2011.

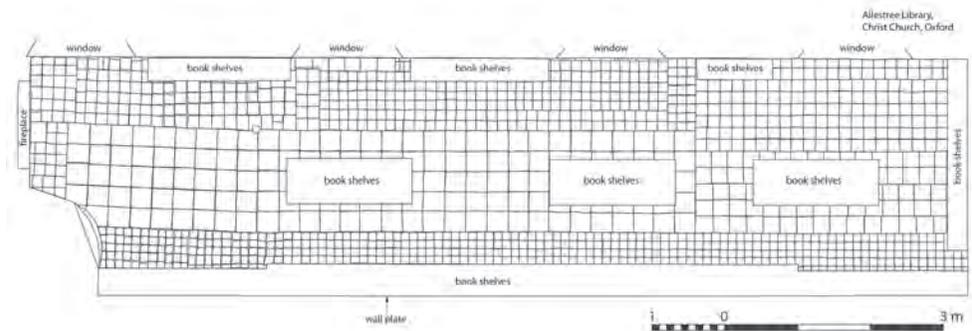


Fig. 4. Survey plan of the tiled floor, reproduced at c.1:100; north is to the top.

full, detailed photographic record was then completed during 2011. A Canon EOS 600D digital single-lens camera was used to photograph all the tiles, using a specially constructed mount so that a constant height above the floor was maintained (see below). Duplicate photographs were taken under natural light conditions and using a dedicated flash unit angled to reflect indirectly onto the tiles. The methodology used to catalogue and analyse the tiles subsequently is described below. Finally, a full measured survey of the room was carried out in 2012. This was hand-surveyed and drawn at a scale of 1:20. It recorded the outline of the room itself, the fixed and free-standing bookshelves, and every one of the tiles (though the designs themselves were photographed rather than drawn).

## THE MEDIEVAL TILES IN THE PAVEMENT

All 1,174 earthenware floor tiles from the Allestree Library pavement were examined. The majority had suffered heavy wear but were originally glazed. Two hundred and thirty-five tiles (twenty per cent) bore thirty-six distinct designs, although some were so badly worn that the design motifs were not recognisable (one per cent of the total number of tiles). The rest of the tiles were plain.

The objective was to identify the decorated tiles laid on the floor of the Allestree Library and compare the design motifs with those found at St Frideswide's Priory (Christ Church Cathedral) and through other archaeological interventions at Christ Church (in the Cathedral Gardens, Meadows Building, the Watching Chamber and the cloister).<sup>4</sup> The tile designs were then compared with the excavated religious houses in Oxford: the church of St Peter-in-the-East;<sup>5</sup> the second site of the Dominican Priory (Blackfriars);<sup>6</sup> St Ebbe's (Greyfriars);<sup>7</sup> Rewley Abbey;<sup>8</sup> and the medieval decorated tiles laid out in Merton College Library in 1623, and from recent excavations at the same college.<sup>9</sup> This data was then used to identify trends or patterns on the Allestree Library paving tiles, to establish when this pavement was laid out, and suggest where the primary setting of these tiles may have been.

The tile designs were compared with the classic published catalogues,<sup>10</sup> and with an online resource, TileWeb: Paving-Tile Watercolours Online (TileWeb 2004, last updated November 2012). The watercolours were collected in the late nineteenth and early twentieth centuries, prior to the major refurbishment of many parish churches in England and Wales.<sup>11</sup> These paintings included many decorated tiles present in Oxford Cathedral.<sup>12</sup>

## METHODOLOGY

Using a specially designed wooden frame, the tile images of the Allestree pavement were photographed in groups, allowing as many as 40 tiles (eight by five rows) to be captured within a single frame.<sup>13</sup> Subsequently each frame was numbered and each tile within each frame was given its own unique number. An excel spread sheet was devised to collect the data, with columns that reflected the unique watercolour references in TileWeb, the numbered tiles within each frame, the excavated sites mentioned above, the published catalogue reference sources, the length and width of the tiles and the specific image reference number.

<sup>4</sup> J. Green et al., 'Medieval Floor-Tiles from St Frideswide's Priory', *Oxoniensia*, 53 (1988), pp. 103–14; D. Duncan, 'Brick and Tile', in C. Scull, 'Excavations in the Cloister of St Frideswide's Priory, 1985', *Oxoniensia*, 53 (1988), pp. 45–8; C. Roberts and G. Williams, 'Ceramic Floor Tiles', in John Moore, *Archaeological Investigations at Christ Church, Oxford, Oxfordshire 2005–2007* (2012), pp. 109–19.

<sup>5</sup> A.B. Emden, 'Medieval Floor-Tiles in the Church of St Peter-in-the-East, Oxford', *Oxoniensia*, 34 (1969), pp. 29–44.

<sup>6</sup> G. Lambrick and M. Mellor, 'The Tiles', in G. Lambrick, 'Further Excavations on the Second Site of the Dominican Priory, Oxford', *Oxoniensia*, 50 (1985), pp. 177–87.

<sup>7</sup> M. Mellor, 'Tiles', in T. Hassall et al., 'Excavations in St Ebbe's, Oxford, 1967–1976: Part I: Late Saxon and Medieval Domestic Occupation and Tenements, and the Medieval Greyfriars', *Oxoniensia*, 54 (1989), pp. 248–55.

<sup>8</sup> J. Tibbles, 'The Ceramic Building Materials', in J. Munby et al., *From Studium to Station: Rewley Abbey and Rewley Road Station, Oxford*, Oxford Archaeology Occasional Paper, 15 (2007), pp. 52–4.

<sup>9</sup> L. Haberly, *Medieval English Paving Tiles* (1937); J. Cotter, 'Ceramic Building Materials', in D. Poore, 'Excavations at No. 4A Merton St., Merton College, Oxford: The Evolution of a Medieval Stone House and Tenement and an Early College Property', *Oxoniensia*, 71 (2006), pp. 292–303.

<sup>10</sup> Haberly, *Medieval English Paving Tiles*; C. Hohler, 'Medieval Paving Tiles in Buckinghamshire', *Records of Buckinghamshire*, 14 (1941), pp. 1–49 (Part I); C. Hohler, 'Printed', Tiles probably from Chiltern Factories', *Records of Buckinghamshire*, 14 (1942), pp. 99–132 (Part II).

<sup>11</sup> T. Bridges and M. Mellor, 'An Archive of Paving-Tiles in the Parker-Hore Collection, Worcester, and in the Ashmolean Museum, Oxford', *The Journal of British Archaeology Association* (2000), pp. 142–55.

<sup>12</sup> J.H. Parker, 'Tiles from the Cathedral Oxford', in 'Notices of New Publications', *The Archaeological Journal*, 5 (1848), pp. 232–5.

<sup>13</sup> Grateful thanks to Brian Durham for constructing the photographic frame.

The size of these two-colour earthenware tiles and associated technology of the decorated tiles enables differing working practices to be recognised which reflect the existence of different workshops.<sup>14</sup> ‘Stabbed Wessex’ (1280–1320) and the Penn/Chilterns (1330–80) were the two major traditions to supply Oxford during the medieval period. Some of the earlier decorative motifs were adopted by later Penn/Chilterns factories (see Table 5, below).<sup>15</sup> The exact measurement of the Allestree tiles was often obscured by mortar, together with variable shrinkage of the clay on firing, which can give rise to a range of sizes.

## ANALYSIS

The proportion of glaze colours was not quantified as the lead glaze had been obliterated in many cases, but the predominant colour was probably honey-coloured, so as not to obscure the design. However, some of the larger tiles (which are c.22–23 sq. cm) had been decorated with a white slip under the glaze and patches of bright yellow and green glaze were still apparent. Still larger tiles (c.28–29 sq. cm) at Allestree included some that had been glazed to give a bright yellow glaze.

Two hundred and thirty-five two-colour tiles had been laid randomly as single tiles on the Allestree pavement, interspersed between 939 plain tiles (<http://tileweb.ashmolean.org/allestree>). Originally the majority of the stylised fleur-de-lys, quatrefoil and rosette motifs were designed to be laid in sets of four. The latter group includes a tile with a variant motif of a design noted previously from Christ Church Cathedral (see Table 3 below; TileWeb reference O006), and is similar to a variant from The Aerary at Windsor Castle, where the floor dates to 1355 and is part of the second phase of development of the tile industry centred on Penn, Buckinghamshire (Photo 45.4c).<sup>16</sup>

Three tiles with a fret motif recorded by Haberly (LH XXVIII) paralleled one from the recent excavations from Christ Church.<sup>17</sup> Two tiles with a pierced fleur-de-lys paralleled a motif from Hohler (W.9), a tile from excavations of the second site of the Dominican Priory,<sup>18</sup> the cloisters in Christ Church, and Merton College,<sup>19</sup> but these two motifs were not recorded by antiquaries and so are absent from TileWeb.

One tile decorated with a ‘cross formed of ears of corn’ parallels another originally in Christ Church Cathedral (TileWeb O018), and these parallel a decorated tile from the kiln area at Cadmore End Common, Fingest, Buckinghamshire.<sup>20</sup> A similar but distinct unparallelled design probably from the same workshop was also found in the Allestree Library, illustrating a hound chasing a deer with stylised tree and foliage (Photo 51.1a). Haberly cites a documentary reference to Thame church having bought tiles from ‘Cadmerend’.<sup>21</sup>

Many of the tiles with animal designs (see Table 2, below), sometimes set within a formal frame, were originally laid as singles. Amongst the animal designs were two motifs not previously recognised from Christ Church: a ‘beast’ which paralleled a tile design from

<sup>14</sup> E. Eames, *Catalogue of Medieval Lead-Glazed Earthenware Tiles in the Dept. of Medieval and Later Antiquities*, 2 vols. (1980).

<sup>15</sup> J. Cotter, ‘A Commentary on the Source and Local Context of the Floor Tiles’, in J. Munby et al., *From Studium to Station*, pp. 54–7, esp. p. 55.

<sup>16</sup> L. Keen, ‘Windsor Castle and the Penn Tile Industry’, in L. Keen and E. Scarf, *Windsor: Medieval Archaeology, Art and Architecture of the Thames Valley* (2002), pp. 219–37, fig. 5, no. 7, 220–5. M. Green, ‘Medieval Tile Industry at Penn’, *Records of Buckinghamshire*, 45 (2005), pp. 115–60, fig. 3a, 123.

<sup>17</sup> Roberts and Williams, ‘Floor Tiles’, fig. 57, 8, 114–17.

<sup>18</sup> Lambrick and Mellor, ‘The Tiles’, fig. 20, 11, 182.

<sup>19</sup> Cotter, ‘Ceramic Building Materials’, Plate XX T4, 297.

<sup>20</sup> B. Hurman, ‘A Late-Medieval Decorated Floor Tile, with other Ceramic Products from Kiln Areas at Cadmore End Common, Fingest, Buckinghamshire: A Preliminary Note’, *Records of Buckinghamshire*, 44 (2004), pp. 21–9 and fig. 2.

<sup>21</sup> Haberly, *Medieval English Paving Tiles*, p. 315.

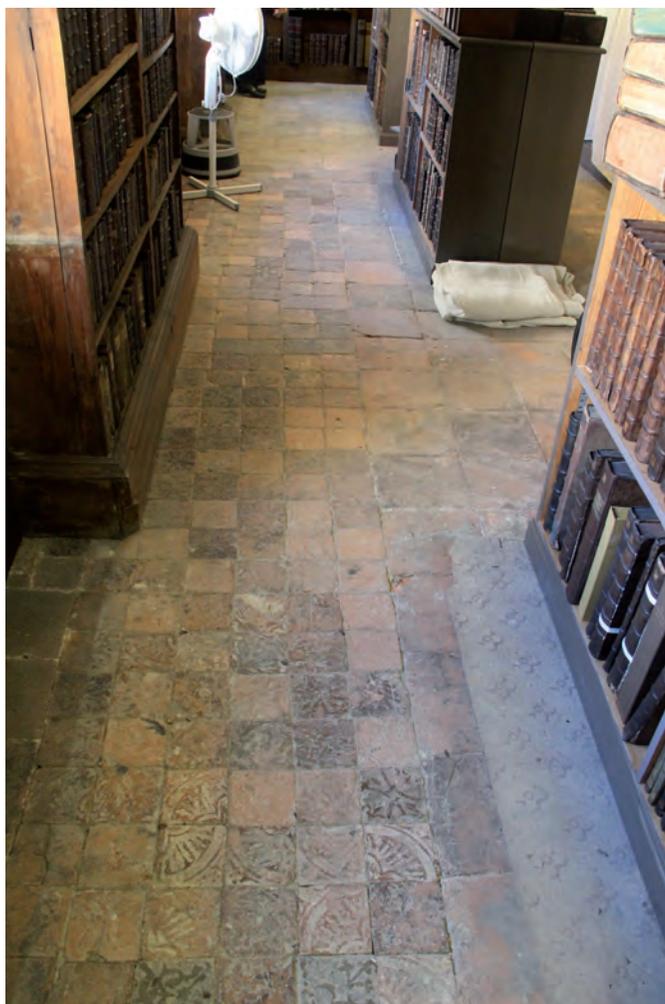


Fig. 5. A view of the tiled floor in the Allestree Library, seen from the west.

the second site of the Dominican Priory (Blackfriars).<sup>22</sup> A similar beast was noted on a 'Westminster' style tile from St John's Priory, Clerkenwell.<sup>23</sup> The second tile with a 'new' design to Christ Church was a stylised head of a lion or leopard, typical of the Penn industry (Photo 4.4c; see also a medieval paving-tile displayed at the Museum of London).<sup>24</sup>

Two plain tiles presented animal paw prints, one made by a medium-sized dog (Frame 40.1a), the second by a larger dog. This suggests that the tiles were laid out horizontally at the workshop to dry to the leather hard state, rather than laid on edge to dry.

Only a few tiles with geometric and architectural designs, inscriptions and letter tiles were noted. Three tiles with illegible epigraphy match tiles still in situ in Marston church, on the outskirts of Oxford, originally illustrated by Mrs Parker and recorded in TileWeb (O361).

<sup>22</sup> Lambrick and Mellor, 'The Tiles', fig. 20, 18b, 182.

<sup>23</sup> I.M. Betts, *Medieval 'Westminster' Floor Tiles*, MoLAS Monograph, 11 (2002), fig. 38, W28, 48.

<sup>24</sup> Reference number 79.242/88.



Fig. 6. Details of tiles 45.4c, 51.1a, 4.4c, 2.5b and 1.3c.

According to Haberly this design was also found in a heap of tiles in Magdalen College tower.<sup>25</sup> Alphabet tiles are rare in Oxford, but one tile from Allestree depicted four crude letters of the alphabet and another tile a capital 'B' within a circular frame. These are unparalleled locally, but both belong to the Chiltern/Penn workshops (Photos 2.5b; 1.3c). The decorated tiles in

<sup>25</sup> Haberly, *Medieval English Paving Tiles*, p. 230.

Merton College Library also had some poorly executed letter tiles,<sup>26</sup> but their style differs from those found in Allestree. Only one heraldic tile was present (TileWeb O015), while tiles with human figures were absent from the Allestree pavement.

The majority of the tile designs paralleled those published from Christ Church Cathedral by Parker in 1848 (see Table 3, below), but five designs were found more recently in other areas of St Frideswide's Priory, the Cathedral gardens, the Meadows Building and the Watching Chamber in 2005–7.<sup>27</sup> Four designs are paralleled from elsewhere in Oxford: notably one tile paralleled a design from the nearby site of the post office in St Aldate's (TileWeb O069, see Table 4 below).

The majority of the tile designs are known within Christ Church suggesting that the tiles' primary location was somewhere within the cathedral precinct, but a substantial number of tiles associated with two design types (Tileweb O057 and O150, see Table 4) paralleled those from Merton College Library, where 2,300 tiles were purchased for the re-flooring of the library in 1623 and where they were laid out in one 'build'.<sup>28</sup> These two tile designs and possibly some of those from Merton College Library may derive from a common source, used to supplement the tiles there and also in Allestree.

The tiles were laid straight across the length and width of the room, but from the survey plan and spread sheet it is possible to see that the composition of the pavement changes across its length. It appears to fall into three distinct zones, with sub-zones in zones 2 and 3. The first 416 tiles (Frames 1–13) along the south side of the room are all regular 11 sq. cm tiles, with a mixture of decorated and plain examples, and some with honey coloured glaze. The decorated tiles with similar measurements (11 sq. cm) from zone 1 originate from one source centred on the Penn/Chilterns workshops.

The central portion of the pavement (Frames 14–23, 31–2, part of 33–45 and 50) is composed of plain tiles of approximately 28–29 sq. cm, with a sub-zone of plain tiles (Frames 23–29) ranging in size from 21–24 sq. cm. The latter tiles show traces of white slip with yellow or green glaze and are imports from the Low Countries (see below). Two two-coloured tiles were within this group and measured 24 sq. cm, much larger than either the Penn/Chiltern or 'stabbed Wessex' tradition but their decoration associated with the 'Annunciation'<sup>29</sup> suggests a source within the Oxford region (TileWeb O361), albeit at a slightly later date than 'stabbed Wessex' tiles and the middle phase of manufacture of the Penn/Chiltern tradition (1360–80).

The final segment of the pavement (zone 3: Frames 30, 33–45) includes a range of decorated tiles centred around 13–15 sq. cm. They belong to the 'stabbed Wessex' tradition with a sub-zone of plain tiles of 16 sq. cm (part of Frames 45–9 and 65, 66, 70 and 71) whose source is probably English. Three modern tiles are present in Frame 33. Animal motifs were more popular in the 'stabbed Wessex' tradition at Allestree.

Only three designs were certainly found in both zones 1 and 3. This suggests that at Allestree the later Penn/Chilterns tradition was not copying many of the earlier 'stabbed Wessex' designs (see Appendix 1 below).

## DATING

Recent excavations have done little to improve on the dating proposed by Loyd Haberly and Christopher Hohler. The inlaid tiles of 'stabbed Wessex' type date to c.1280–1330, and possibly c.1250.<sup>30</sup> Elsewhere two-colour tiles were in use by the 1240s.<sup>31</sup> The fabric of 'stabbed Wessex'

<sup>26</sup> Ibid. p. 196.

<sup>27</sup> Roberts and Williams, 'Ceramic Floor Tiles'.

<sup>28</sup> Haberly, *Medieval English Paving Tiles*, pp. 68, 196; Cotter, 'Ceramic Building Materials', p. 295.

<sup>29</sup> Haberly, *Medieval English Paving Tiles*, p. 23, LH CLXXXIX.

<sup>30</sup> Lambrick and Mellor, 'The Tiles', p. 185.

<sup>31</sup> E. Eames, *English Tilers* (1992), p. 9.

is similar to pottery fabrics used at medieval kilns at Ashampstead, Berkshire, and a source for these tiles may lie in that vicinity.<sup>32</sup> The Penn/Chilterns decorated tiles date from c.1330–80,<sup>33</sup> but the decorated tiles from this source at Allestree appear to belong to the middle phase of production, c.1360–80, and include two Chilterns/Penn designs (TileWeb O057, O060) used at New College, built 1379–86.<sup>34</sup> The two tiles, measuring c.24 sq. cm and decorated with epigraphy, may date to the later-medieval period and are from an unknown source in the Oxford region.

The 'Flemish' tiles were manufactured throughout the Low Countries, from west Friesland in the north to Bruges in the south, from as early as the thirteenth century, but the measurements of the medieval tiles from Bruges are much smaller; those found at Allestree are closer in size to eighteenth-century tiles exported from Hoorn, Friesland.<sup>35</sup> 'Flemish' tiles were imported into London in the fourteenth century, prior to the arrival in London of the decorated Penn/Chilterns tiles.<sup>36</sup> Later Flemish and decorated Penn tiles have been noted at St Botolph Billingsgate, London, where the floor was provisionally dated to c.1400–1500.<sup>37</sup> Similar tiles were noted in excavations at Merton College,<sup>38</sup> the Latin chapel,<sup>39</sup> and the cloister area of Christ Church where 'thirty-two large tiles' were identified as 'Flemish' and a building account of 1528–9 for Wolsey's college records payments to John Norton, who 'was paid £6 1s. 4d. for 2,600 paving tiles of yellow and green at 3s. 8d the hundred'.<sup>40</sup> 'Flemish' tiles measuring 20 sq. cm are still in situ in the north chapel of St Nicholas (built in 1605) in the parish church of Rotherfield Greys, near Henley-on-Thames, south Oxfordshire.

## CONCLUSION

The two-colour paving-tiles in the Allestree Library present a jumble of dates but were probably laid out at one time, perhaps in the seventeenth century, and would almost certainly have presented a pleasing visual sight. The Clerk of Works at Christ Church would surely have been aware of other tiled floors being constructed with surplus second-hand medieval tiles that were available after the Dissolution of the Monasteries in the 1540s, as for example at Merton College Library. It is unfortunate that there is no reference to the tiles in the disbursement book, but perhaps not surprising if many, most or all of them were being re-cycled from the former priory buildings to this new location. On balance the 1612/13 construction date for the 'chamber over the cloister' (or soon after) seems the more likely time for the tiles to have been laid here, rather than almost 70 years later when the Allestree Library was established. Indeed, the potential fire resistance offered by the tiled floor might have influenced the location (though of course the same could be said for a choice to lay them here as part of the library's establishment). Some credence is given to an earlier rather than later seventeenth-century date by the laying of the tiled floor at Merton College Library in 1623 (see above).

<sup>32</sup> L. Mephram and M. Heaton, 'A Medieval Pottery Kiln at Ashampstead, Berkshire', *Medieval Ceramics*, 19 (1995), pp. 33–4.

<sup>33</sup> Green, 'Medieval Tile Industry at Penn', p. 109.

<sup>34</sup> *Ibid.* p. 137, fig. 7.

<sup>35</sup> Personal communications from Bieke Hilliwaert and Michiel Bartels, the latter concerning a shipwreck of 1752.

<sup>36</sup> Betts, *Westminster*, p. 25.

<sup>37</sup> *Ibid.* p. 65.

<sup>38</sup> Cotter, 'Ceramic Building Materials'.

<sup>39</sup> Green, 'Medieval Tile Industry at Penn'.

<sup>40</sup> Duncan, 'Brick and Tile', p. 47; *VCH Oxon.* 3, p. 231.

The decorated paving tiles from Oxfordshire and Buckinghamshire have been much studied and published,<sup>41</sup> but recent excavations continue to reveal new designs and their variants, and the pavement from the Allestree Library is no exception. The two designs associated with the Cadmore End kilns indicate that Oxford may have been supplied with decorated paving tiles from sources closer to Oxford than those at Penn (Buckinghamshire) by the late medieval period.

As noted previously, the decorated tiles from Christ Church had many parallels with the decorative paving tiles from St Peter-in-the-East, Oxford, and the Allestree Library tiles follow this trend. Few parallels were noted with Rewley Abbey.

Low Countries tiles are beginning to be recognised in the Oxford region in considerable quantity. The river Thames as far as Henley may have been a conduit for their distribution from London to the upper Thames valley.

## ACKNOWLEDGEMENTS

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## APPENDIX: TABLES

*Table 1. Quantities of two-colour decorated and plain tiles on the Allestree Library floor, Christ Church, Oxford*

|                 | Quantity     | Percentage |
|-----------------|--------------|------------|
| Plain tiles     | 939          | 80         |
| Decorated tiles | 235          | 20         |
| <b>Total</b>    | <b>1,174</b> | <b>100</b> |

*Table 2. Quantities of decorated floor tiles sorted into design motifs used by the TileWeb online resource (tileweb.ashmolean.org)*

| Style of decoration                                       | Quantity   | Percentage |
|---|------------|------------|
| Animal, bird or fish designs                              | 45         | 20         |
| Fleur-de-lys, quatrefoils, rosettes, roses & knot designs | 168        | 71         |
| Geometric & architectural                                 | 3          | 1          |
| Inscription   | 5          | 2          |
| Heraldry  | 1          |            |
| Human figures   | –          |            |
| Unidentified – images unclear                             | 13         | 6          |
| <b>Total</b>  | <b>235</b> |            |

<sup>41</sup> Haberly, *Medieval English Paving Tiles*; Hohler, 'Medieval Paving Tiles in Buckinghamshire' (Parts I and II).

Table 3. Decorated tiles sorted by TileWeb watercolour references, showing classic reference catalogue numbers and the decorative design motifs found in Christ Church Cathedral c.1848

| Style of decoration                                      | Reference  | Haberly     | Hohler      | Quantity | Oxford Cathedral 1848 |
|--|--|-------------|-------------|----------|-----------------------|
| Animal, bird or fish design                              | O011   | LXI         | W.7         | 5        | x                     |
|  | O012   | XXXIII      | W. 25 var   | 2        | x                     |
|  | O013   | XXXV        | W.26        | 1        | x                     |
|  | O014   | CCLVIII var | –           | 4        | x                     |
|  | O032   | XLIV        | W.6 var     | 6        |                       |
|  | O046   | LXVI        | W.8         | 1        |                       |
|  | O048   | XLVI        | W. 5 var    | 5        | x                     |
|  | O150   | CCXLVII     | –           | 18       |                       |
|  | 'beast' // Dominican Priory Fig. 20, 18b                             | –           | –           | 2        |                       |
|  | B505 var – Photo 4.4c lion   | CXLIII var  | P.109       | 1        |                       |
|  | Total  |             |             | 46       |                       |
| Fleur de lys, quatrefoils, rosettes, roses & knot design | O002   | XXIII       | W.35        | 13       | x                     |
|  | O003   | XXII        | W.31        | 2        | x                     |
|  | O006 var Photo 45.4c   | CXVIII var  | P. 157 var; | 1        | x var                 |
|  | O007   | XXVII       | W.30        | 3        | x                     |
|  | O008   | CVI         | P.77        | 2        | x                     |
|  | O009 var Pierced fleur-de-lys // Dom Fig. 20, 11 Cloister Fig. 26, 2 | XXXII var   | W.9         | 2        | x var                 |
|  | O016=170   | CLXVIII     | –           | 16       | x                     |
|  | O017   | CLXVI       | –           | 4        | x                     |
|  | O018   | CLV         | P. 87 var   | 1        | x                     |
|  | O019   | XXVI        | –           | 2        | x                     |
|  | O022   | LV          | W.42        | 5        | x                     |
|  | O024 var   | XLVII       | W.11 var    | 1        | x                     |
|  | O030   | XCVII       | P.99        | 27       | x                     |
|  | O057   | LXXVII      | –           | 28       |                       |
|  | O060   | LXXIX       | P. 50 var   | 16       | x                     |
|  | O069   | CCXXVII     | –           | 1        |                       |
|  | O130   | CLXX        | D.4         | 23       |                       |
|  | O140   | I var       | W.13        | 1        |                       |

Table 3 (Continued)

| Style of decoration          | Reference  | Haberly    | Hohler  | Quantity | Oxford Cathedral 1848 |
|------------------------------|--|------------|---------|----------|-----------------------|
|                              | O145   | LIII       | –       | 1        |                       |
|                              | O155   | XXXI       | W.29    | 1        | x                     |
|                              | O162   | LIX        | P.102   | 1        |                       |
|                              | O169   | XXV        | W.38    | 2        | x                     |
|                              | // LH XXVIII   | XXVIII     | W.19    | 3        |                       |
|                              | A502   | XLII       | W.12    | 1        |                       |
|                              | B549   | XXIX       | W.34    | 1        |                       |
|                              | O299   | II var     | –       | 3        |                       |
|                              | O343a  | CLXXII var | –       | 1        |                       |
|                              | O216   | XVI        | –       | 1        |                       |
|                              | A507   | CCIX       | W.37    | 1        |                       |
|                              | Photo 51.1a leaf<br>similar to one from<br>Cadmore End |            |         | 1        |                       |
| Total                        |  |            |         | 168      |                       |
| Geometric & architectural    | O053   | CCXXIX     | –       | 1        |                       |
|                              | O031   | XIII       | –       | 2        | x                     |
| Total                        |  |            |         | 3        |                       |
| Heraldic                     | O015   | LXIX var   | W.1 var | 1        | x                     |
| Human                        | –  |            |         | –        |                       |
| Inscription                  | O361   | CLXXXIX    |         | 3        |                       |
|                              | Photo 1.3c<br>Capital B                                |            |         | 1        |                       |
|                              | Photo 2.5b 3<br>letters of the<br>alphabet             |            |         | 1        |                       |
| Total                        |  |            |         | 5        |                       |
| Image unclear – unidentified |  |            |         | 13       |                       |
| Overall total                |  |            |         | 235      |                       |

Table 4. Decorated earthenware floor tile designs not recorded in Christ Church Cathedral by Parker in 1848

| Style of decoration                                      | Reference | Quantity | Location  |
|--|-----------|----------|---|
| Animal, bird or fish design                              | O046      | 1        | ?Cloister, Rewley Abbey, St Peter-in-the-East, Greyfriars |
|  | O150      | 18       | Merton College Library, Oseney Abbey                      |
| Fleur de lys, quatrefoils, rosettes, roses & knot design | O057      | 28       | New College, Merton College Library                       |

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Table 4 (Continued)

| Style of decoration       | Reference | Quantity | Location   |
|---------------------------|-----------|----------|--|
|                           | O069      | 1        | Post Office, St Aldates  |
|                           | O130      | 23       | Cathedral (not Parker 1848)<br>St Frideswides  |
|                           | O140      | 1        | Godstow; Rewley Abbey, St Peter-in-the-East, Dominican Priory                          |
|                           | O145      | 1        | St Frideswide; Christ Church 2005–2007, Rewley Abbey, St Peter-in-the-East, Greyfriars |
|                           | O162      | 1        | Cloister, Oseney Abbey   |
| Geometric & architectural | O053      | 1        | Cloister, Oseney Abbey, Dominican Priory, Merton College Library                       |

Table 5. Presence or absence of each design, within each zone. Only designs O002, O030, O060 and possibly O130 are present in both zones 1 and 3

| Style of decoration  | Ref      | Zone 1<br>Frames<br>1–13 | Zone 2 Frames 14–23,<br>31–32, part of 33–45<br>and 50. Sub-zone<br>24–29. | Zone 3 Frames 30,<br>33–44. Sub-zone<br>part of 45–49 and<br>65, 66, 70, 71. | Quantity |    |
|--|----------|--------------------------|--|--|----------|----|
| Animal, bird or<br>fish design                                   | O011     |                          |  | 5  | 5        |    |
|  | O012     |                          |  | 2  | 2        |    |
|  | O013     |                          |  | 1  | 1        |    |
|  | O014     |                          |  | 4  | 4        |    |
|  | O032     |                          |  | 6  | 6        |    |
|  | O046     |                          |  | 1  | 1        |    |
|  | O048     |                          |  | 5  | 5        |    |
|  | O150     | 18                       |  |  |          | 18 |
|  | beast    |                          |  |  | 2        | 2  |
|  | B505     | 1                        |  |  | 1        |    |
| Total  |          |                          |  |  | 46       |    |
| Fleur-de-lys,<br>quatrefoils,<br>rosette, roses &<br>knot design | O002     | 11                       |  | 2 – Zone 3 tiles<br>larger = earlier   | 13       |    |
|  | O003     |                          |  | 2  | 2        |    |
|  | O006 var | 1                        |  |  | 1        |    |
|  | O007     |                          |  | 3  | 3        |    |
|  | O008     | 2                        |  |  | 2        |    |
|  | O009 var |                          |  | 2  | 2        |    |
|  | O016=170 |                          |  | 16   | 16       |    |
|  | O017     |                          |  | 4  | 4        |    |

Table 5 (Continued)

| Style of decoration             | Ref                               | Zone 1<br>Frames<br>1-13 | Zone 2 Frames 14-23,<br>31-32, part of 33-45<br>and 50. Sub-zone<br>24-29. | Zone 3 Frames 30,<br>33-44. Sub-zone<br>part of 45-49 and<br>65, 66, 70, 71. | Quantity |
|---------------------------------|-----------------------------------|--------------------------|--|--|----------|
|                                 | O018                              |                          |  | 1  | 1        |
|                                 | O019                              |                          |  | 2  | 2        |
|                                 | O022                              |                          |  | 5  | 5        |
|                                 | O024 var                          |                          |  |  | 1        |
|                                 | O030                              | 22                       |  | 5  | 27       |
|                                 | O057                              | 28                       |  |  | 28       |
|                                 | O060                              | 11                       |  | 5 - Zone 3 tiles =<br>larger = earlier                                       | 16       |
|                                 | O069                              |                          |  | 1  | 1        |
|                                 | O130                              | 1? Zone 1<br>smaller     |  | 22   | 23       |
|                                 | O140                              |                          |  | 1  | 1        |
|                                 | O145                              |                          |  | 1  | 1        |
|                                 | O155                              |                          |  | 1  | 1        |
|                                 | O162                              |                          |  | 1  | 1        |
|                                 | O169                              |                          |  | 2  | 2        |
|                                 | LHXXVIII                          |                          |  | 3  | 3        |
|                                 | A502                              |                          |  | 1  | 1        |
|                                 | B549                              |                          |  | 1  | 1        |
|                                 | O299                              |                          |  | 3  | 3        |
|                                 | O343a                             |                          |  | 1  | 1        |
|                                 | O216                              |                          |  | 1  | 1        |
|                                 | A507                              |                          |  | 1  | 1        |
|                                 | Photo-51.1a<br>leaf               |                          |  | 1  | 1        |
| Total                           |                                   |                          |  |  | 168      |
| Geometric &<br>architectural    | O053                              | 1                        |  |  | 1        |
|                                 | O031                              |                          |  | 2  | 2        |
| Total                           |                                   |                          |  |  | 3        |
| Heraldic                        | O015                              |                          |  |  | 1        |
| Human                           | -                                 |                          |  |  |          |
| Inscription                     | O361                              |                          | 2  | 1  | 3        |
|                                 | 1.3c Capital B                    | 1                        |  |  | 1        |
|                                 | 2.5b 3 letters<br>of the alphabet | 1                        |  |  | 1        |
| Total                           |                                   |                          |  |  | 5        |
| Image unclear -<br>unidentified |                                   | 4                        |  | 9  | 13       |
| Overall total                   |                                   | 99                       |  |  | 235      |

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