

A survey of medieval floor tiles in St Andrews Cathedral Museum and the Abbot's House, Arbroath Abbey

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SUMMARY

The opportunity was afforded by chance finds of medieval floor tiles from St Andrews Cathedral and in the Abbot's House at Arbroath Abbey to re-examine some wider aspects of previous work on medieval floor tiles from Scottish ecclesiastical and secular sites. An attempt is made to suggest the extent of the tile pavement in St Andrews Cathedral and the dating and origin of the tiles in general. The limitations of the Cistercian evidence in southern Scotland is appraised. The methodology used to describe and classify the tiles is that recommended by the Medieval Tile Seminar held in Cambridge in 1978 and intended for use in the national census.

ST ANDREWS CATHEDRAL

INTRODUCTION

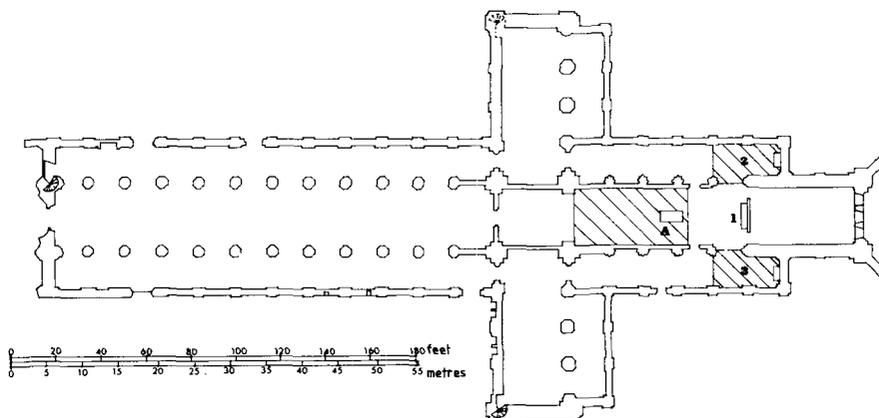
A box of 27 miscellaneous fragments of plain glazed and unglazed medieval tiles has been located from storage at St Andrews Cathedral. Apart from two complete examples they are all floor tiles. From a note, dated 1937, attached to one of the pieces it is likely that they were amongst those referred to by Hay Fleming (1931, 195–6) when he catalogued the contents of the Cathedral Museum which contains nine other fragments of floor tiles also considered in this article. Fleming noted that although some of the tiles in the collection were retrieved from other sites in St Andrews, the Castle and Dominican Friary and from the Cistercian abbey at Balmerino, most were found within the Cathedral and were associated with parts of its flooring.

A badly damaged strip of pavement, 5.1 m by 0.35 m to 0.40 m, consisting of large square tiles, 255 mm by 255 mm, diagonally set, has been reconstituted *in situ* in the north part of the choir in the area formerly occupied by the Canons' stalls 12.2 m W of the steps leading to the high altar. The tiled floor of the choir was first exposed in 1887 by Alexander Hutcheson (1888, 148) in an area he described specifically as being in front of the site of the high altar. The dimensions of the tiles were given as 10 inches (255 mm) square and the fact that they had a worn coloured glaze on their upper surface. In a later excavation carried out by Fleming (1904, 107–8, 243) (he called them howks) a trench was dug on the west side of the tomb slab of Archbishop William Schevez (1497) which is located 3.86 m west of the high altar steps. In it Fleming found many fragments of the tiled floor *in situ* about 128 mm below the present surface. It was clear that the tiles had been disturbed by the

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construction of the Schevez tomb and the adjacent burials of Archbishops Andrew Forman (1521) and James Beaton (1539). Fleming showed that the tiles had been originally bedded in lime resting on a layer of sand 204–230 mm thick beneath which there was a lower bed of lime of poorer quality than the upper one. He established that none of the tiles uncovered was whole and, judging from the angle at which some of the fragments were lying, they had been smashed by the fall of the groined roof. He noted a variation in the tile thickness from $\frac{1}{2}$ " to $1\frac{1}{2}$ " (13–38 mm). Neither he nor Hutcheson, however, gave any indication of the extent of the floor in this part of the building. That it did not run eastwards from the Schevez tomb was confirmed by a subsequent excavation (Fleming 1915, 215–19) at the steps near the east end of the choir. Fleming discovered that the paved floor supposed to mark the site of the high altar in its pre-1378 location was formed of freestone slabs 13"–18" (325–453 mm) by 7"–17" (179–428 mm) which were badly smashed and sunk below their original level, damage also caused by a fall of the roof.

While excavating in the Lady Chapel, Fleming (1904, 213) recovered from the north side of the north wall what he described briefly as two very dark green paving tiles.



ILLUS 1 The Cathedral Church of St Andrews, conjectural arrangement of tile pavements. 1 High Altar, 2 Altar of Our Lady, 3 Probable Altar of St Andrew, A Tomb of Archbishop William Schevez (1497)

TYPOLOGY

With the exception of one fragment which has a light grey body and a complete over-fired tile all the pieces in the collection are of a finely prepared sandy, orange-red fabric, fully oxidized and with neatly undercut edges. One fragment has a slip-over-impression inlay pattern of two parallel bands intersecting towards the corner. No evidence of keying on any of the pieces occurs. Where complete corners exist, 12 of the pieces have small nail punctures on the upper surface. According to Eames (1976, 211–13) these were made by nails projecting from a board with which the tile makers in the Netherlands held the tile firm while they trimmed the edges. Indigenous tilers do not appear to have used this device. The glazing technique on four pieces shows prominent brush marks in the slip beneath the clear, crackled glaze, with a tendency for both to have peeled off as a layer from the fabric, which suggests that the tiles were biscuit fired before these were applied. These two features, which are closely analogous to some of the Arbroath examples, combined with their estimated large

size, indicate an origin in the Netherlands. The tiles have all been prepared in sand lined trays and the majority retain residual traces of mortar on the base and edges as well as the occasional speck of glaze.

From fabric thickness, composition, glazing and moulding technique the following types have been distinguished but, bearing in mind the damaged nature of the material, differentiation between them cannot always be made with complete certainty.

Type A

Two small, complete unglazed tiles of irregular thickness, (1) 105 mm by 102 mm by 10 mm tapering to 5 mm along one of its edges with a pronounced convex surface centrally of 15 mm. (2) 103 mm by 102 mm by 15 mm with a central convex of 20 mm. Grog inclusions break through the upper surface fabric. The thinness of the two tiles is unusual and precludes their use as floor tiles; they may have been set in step risers or used in a border decoration at the junction of wall and floor.

Type B

Four complete tiles all with slight variation in thickness. They comprise one example of a coarse fabric over-fired to a dark brown, slightly distorted with fractures visible along its bevelled edge. Typically the black glaze has bubbled and is rough. The surface is pitted and badly damaged. It measures 110 mm by 110 mm by 25 to 28 mm.

Two dark mottled green glazed examples, 108 mm by 108 mm by 26 to 29 mm, and one with a slip from which most of the patchy olive green glaze has been worn. It measures 108 mm by 108 mm by 25 to 27 mm. All have nail holes.

Two large fragments 34 mm and 40 mm thick. One has a worn mottled olive green glaze applied directly to the particularly finely prepared fabric with nail holes towards the corners and one at the centre; the other is also of a finely prepared fabric with only the thickly applied slip remaining; it has no holes.

From this category Fleming (1931, 195–6) assigned three tiles to an unstratified context in the Dominican Friary. It cannot be established, however, which of the tiles these were.

Type C

Inlaid fragment 23 mm thick. According to Fleming it appeared to be *in situ* when found in the south east corner of the north aisle of the Dominican building (*ibid*). A fresh glaze producing a yellowish finish over the thin cream slip inlay; it is similar to two small pieces, one with an angular band motif, the other with a fleur de lis, recovered from the Perth High Street excavation (Bogdan 1977).

Type D

Three fragments, 24 mm to 26 mm thick, with a lustrous thick dark green glaze that has crackled and is streaked with brown. Two fragments of a single tile, 200 mm by 200 mm by 24 mm, with a worn mottled green glaze and nail holes 25 mm in from the corners.

Two fragments of a single tile, 25 mm to 26 mm thick, with a speckled dark green glaze and nail holes.

Three fragments, 35 mm to 40 mm thick, with a worn speckled dark green glaze. No slip has been used on any of the pieces in this category.

Type E

Corner fragment of a dark red fabric 37 mm thick. The surface is damaged and badly worn; small patches of clear glaze on a cream coloured slip occur.

Three fragments of a single tile 40 mm thick with a patchy honey coloured glaze on a cream slip. All four are similar to those *in situ* in the choir of the Cathedral.

Type F

Four fragments of a single tile, 24 mm to 26 mm thick, with a longest measurement of 192 mm and a brushed patchy slip with a crackled honey coloured glaze.

Single fragment, 22 mm to 30 mm thick, also with a slip and honey coloured glaze. All five pieces have nail holes at their corners.

Type G

Six unglazed fragments from 23 mm to 30 mm thick with grog inclusions and similar in general appearance to those in the choir.

Type H

Two fragments of a single tile, 23 mm thick, of a light grey buff fabric with a number of small quartz inclusions. A lustrous pale green glaze partially streaked and crackled has been applied directly to the fabric.

The body clay has no parallel to any in the collection of the National Museum of Antiquities of Scotland and is probably of French origin.

DISCUSSION

Since the tiles cannot be assigned to contexts, dating can only be estimated here on the basis of their conjectural relationship to those building phases of which they were an integral part. Two broad encompassing dates from the mid to late 13th century to the mid to late 16th century are suggested, the latter including the patterned inlaid example from the Dominican Friary, the technique for which was not developed until that period.

The evidence available suggests that there were at least two main programmes of tile laying carried out both in the choir and the north and south choir aisles of the Cathedral and that a secondary sequence of patching, alteration and limited extension of the original tiled floor took place over a period of 200 years between 1230 and 1443. The precise nature of the secondary sequence has yet to be determined, but it would certainly reflect and be related to the vicissitudes and architectural alterations of the total building. Any buried pavement, together with its mortar bedding, would provide a valuable set of stratigraphic units with a sequence and relationship to other architectural features (Horton 1979, 38). Consideration should be given, too, to the fact that other parts of the Cathedral and Priory buildings, in particular the Chapter House, like that at Melrose, would be tiled. At least two pieces of tile have been used as pinning at floor level in the north wall of the old Chapter House.

As one of the focal points and most sacred areas of the Cathedral, the choir would have been completely floored by, or shortly after, the time the structural work on the rest of the fabric was sufficiently advanced for it to have been brought into use as a Cathedral and Priory church during the episcopacy of Bishop Malvoisin (Cant 1976, 11–32). The tiling, it is conjectured, would cover the area eastwards from the north and south crossing piers for three bays of the chancel up to within a metre of the high altar, which was then sited two bays westwards from its post-1443 position. In this respect the choir tessellation appears to differ slightly from that at Byland where the tiles covered the entire floor up to and around the altar. From Fleming's findings (1915, 215–19) it is also likely that the pavement would have been laid in the chapels immediately before the altars of Our Lady and St Andrew. To this initial phase of construction tiles of types B, D and E may be assigned. The disastrous fire of June 1378 necessitated the replacement of the choir roof which had collapsed and would also have required extensive repairs to the floor. Tiles of types F and G are likely to belong to this second phase of repair.

As far as the tiles from the site of the Dominican building are concerned the problem of certain identification is a major obstacle to any interpretation. If they are pieces from types B, C and H it is again most likely they would be associated with the choir of the church which has not been located; the excavation by the St Andrews Antiquarian Society in 1909 establishing little more than the width of the nave. The inlaid fragment is compatible with the 1525 date of the surviving north aisle of the church, the other pieces are of a late 13th-century date and are compatible with the earlier structure of the 1270s.

ARBROATH ABBEY: THE HALL IN THE ABBOT'S HOUSE

INTRODUCTION

A pavement consisting of some 328 plain medieval tiles occupies approximately half of the eastern floor area (22.17m²) of the Abbot's Hall in the Abbot's House at Arbroath Abbey. With the exception of a few at the base of the south wall all have been badly damaged and fragmented, probably while the building was used as a thread factory. The other half of the floor is flagged.

DESCRIPTION

The tiles, which measure 240mm by 235mm by 28mm, have been disturbed from their original position and relaid in tight fitting contiguous rows in a bed of powdery fine sand. Only one detached example shows substantial traces of the former mortar bedding. Of an orange red fabric they have been evenly fired, and as far as can be ascertained from loose pieces, there is no reduced core. Grog has been used in the manufacture of some of them, but they are relatively free from inclusions. Although there is a homogeneity in the appearance of the floor it is possible to differentiate between two types of tile on the basis of thickness and the glazing method that has been used. A number of pieces retain traces of surface glaze. Dark and light mottled green glazes occur applied directly to the tile body; on others a slip has been evenly brushed-on and coated with a clear glaze, giving a creamy colour with a tonal variation to brown where the slip is absent. One of three large fragments in the Abbey museum shows the common 13th-century feature of having a grey reduced patch on its surface producing an area of lighter hue in the dark mottled green glaze. Another has a patchy brown glaze that has crackled and bubbled from over-firing. It is clearly not a waster, however, and has been used. From the spread of samples retaining traces of glaze, it is fairly certain that the whole pavement was once glazed with dominant colours of dark, lustrous brown to light green. No inlay or mosaic techniques have been used so that the overall effect of the floor would derive entirely from the bright but narrow colour variation of the individual tiles. On some pieces that have been reset bordering the flagged area the glaze has a fresh unworn appearance but has crackled and flaked off parts of the surface. This is consistent with a biscuit firing process, glazing and a second firing. On others there is distinct evidence of the glaze having been worn off more gradually. The majority of pieces have small nail holes in the upper surface, either one near each corner or one near two diagonally opposite corners. The tiles have undercut edges and one piece has had part of its under surface scooped out to provide a key.

It is acknowledged that the dating of plain glazed and unglazed floor tiles is difficult and that no typological series has yet been worked out (Eames 1976, 211–13). None the less, it can be postulated that the tiles can be assigned to a late 13th- or early 14th-century date which would be in accord with the first building phase of the 13th century when the hall formed a westward projection from the south cloister range rather than the later medieval phase which saw the addition of the chamber on the west side of the existing hall and the lean-to range along the north side of the extended block, all at different floor levels.

DISCUSSION

In quantitative and qualitative terms the medieval tile resources of Scotland, like those of Wales, are exiguous and uneven (Lewis 1976, 3). Currently only 25 sites are recorded as having yielded floor tiles. The Cistercian foundations at Melrose and Newbattle alone have mosaic. Glenluce has both relief patterned and plain tiles while North Berwick Convent has its unique sequence of relief tiles with their geometric and zoomorphic motifs. Tiles with relief decoration have been found at the secular sites of Morham, Tantallon and Dirleton castles and Linlithgow Palace. A single inlaid tile has been found at Dornoch Cathedral. Richardson (1929, 281–310) identified 10 other sites as having plain glazed tiles. To these must now be added the plain glazed and unglazed examples from Edinburgh High Street (Schofield 1976, 211–13), Perth High Street, Glenluce (Cruden 1952, 179–89), Forgan Church (di Folco & Harris 1972, 252–5) and Arbroath Abbey.

To date the only tile kiln to be positively identified is at North Berwick. It was partially excavated by the late James Richardson in 1928 and assigned to the 13th century (Richardson 1929,

281–310). Although its output was large, consisting mainly of embossed tiles, it does not appear to have supplied any other building as no tiles similar to those it produced have been found elsewhere in Scotland. Richardson argued that the embossed tiles from North Berwick had no English or French analogues but resembled those from Zofingen in Switzerland.

The major tile pavements *in situ* are at Melrose Abbey and Glenluce, which can be regarded (Richardson 1929, 281–310; Beulah 1978, 20–1) with the tiles from Newbattle Abbey as part of the repertoire of itinerant French tilers. Cruden (1952, 30, 179–89) noted the existence of 1200 square feet of tiling *in situ* at Glenluce, Wigtonshire. Most of the tiles, which were attributed to the 15th century, were square, undecorated and glazed. There were also three types of decorated tile with 13th- and 15th-century parallels.

From Newbattle Abbey over 60 detached mosaic tile shapes dating from the early 13th century were excavated in 1878 and 1895 (Richardson 1929, 287). The body clay was similar to the North Berwick tiles and a white clay had been used for the inlay. Glazing ranges from yellow to greenish brown. Both Richardson and Beulah regard the Newbattle tiles as part of the repertoire of Byland tilers, while Richardson's conjectural restoration of the Newbattle floor patterns produce a similarity to those in the S transept chapels at Byland. He argues for a French provenance on the basis of the foreign nature of the clay and the presence of small square blocks of Tournesian limestone.

While French influence in tile design and manufacture seem clearly established, primarily in the area of mosaic, and a Swiss or German atelier as the source of the embossed tile work, the wider continental links which Scotland had developed in the Middle Ages with the Low Countries have potentially interesting implications in studying the provenance of plain medieval floor tiles. The Halyburton Ledger of 1492 (Innes 1867, 162, 251) contains two references to tile imports for the Archdeacon of St Andrews:

'Item in Jun anno 99, send the Archden of Sant Andros out of Midylburgh in a lytyll schip of Sant Andros, a M tyls, cost . . . 14s' and 'Item in Jun 99, in a schip of the Feir that past to Etlyn, a M tyls for his chammer flour, the quhilk cost with costis 16s 8ql.'

The links with the Netherlands have been reinforced by finds made in excavations S of Edinburgh High Street (Schofield 1975, 211–13). In addition to these, possibly one other reference to floor tiles occurs (Paul & Dickson 1877, 116):

'Item the ix day of Maij (1508) in Strivelin, to the man of Bothuile that makis the tyle that suld cum to Strivelin to wirk . . . xx s.'

Given the limited nature of the corpus and the fact that little has been added to it for over 30 years only the most tentative of conclusions can be drawn. The general picture to emerge is that as yet there is nothing particularly indigenous about the inlay and mosaic tiles on Scottish sites. They occur in a clearly defined area of Cistercian influence that extends in a crescent between North Berwick and Glenluce where production could have been carried out by an itinerant group of tilers working at a craft for which the Cistercians were renowned and for whom national frontiers had no meaning. Beyond this crescent, where the tile finds have been noted, a marked typological change accompanied by a rapid quantitative diminution takes place. Inlay work is rare and mosaic non-existent. In both a stylistic and geographical sense the crescent represents the northernmost penetration of Cistercian influence. Even where the industrial process of the single kiln has been located, it is as a fully developed imported technique. Occurring within this area but also extending north of it, the evidence is gradually accumulating of an intrusion by Dutch ateliers with their products shipped in to supply customers like St Andrews Cathedral to which the Arbroath examples are closely similar.

The Arbroath series is intrinsically interesting and of importance in comprising a sizeable tile

pavement well outside the sphere of Cistercian operations and giving a comprehensive idea of the appearance of the type of floor to be found in a prestigious building.

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