

# Towards an architectural history of Kilwinning Abbey

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## ABSTRACT

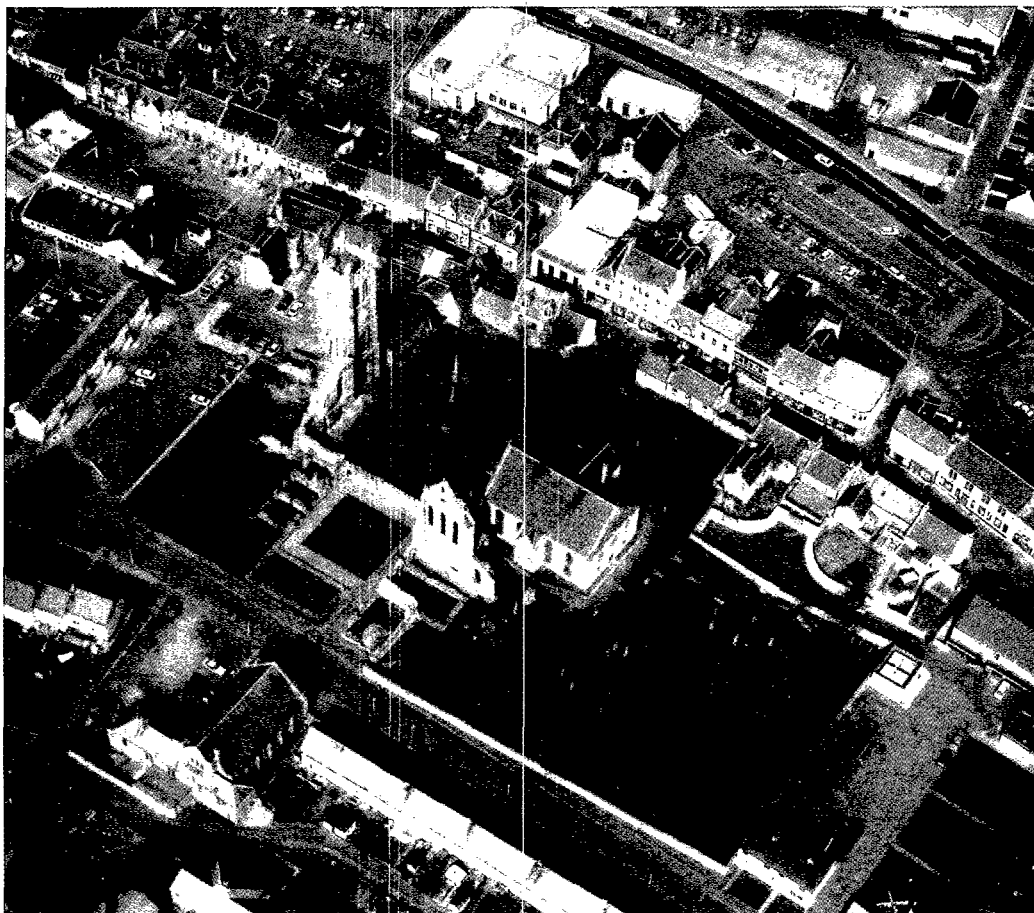
*The Tironensian abbey of Kilwinning, compared to its sister abbey of Kelso, has been relatively neglected, despite the fact that the extent of the remaining ruins at both sites is about the same – and equally dramatic. At Kilwinning, those remains consist of parts of the church – the south arm and gable of the transept, the wall of the south aisle, the west front – and parts of the east and west ranges of the cloister, including the chapter-house and a slype. Especially conspicuous are well-preserved ensembles such as the chapter-house entrance, the gable of the transept and the arch to its eastern chapel, the cloister portal, and the arch at the west end of the nave aisle. A rapid survey reveals that each of these elements clearly represents a different building phase, yet the chronology of the abbey's construction, particularly that of the church, has never been worked out. This is what this paper attempts to do. The task is not without its difficulties since, owing to the lack of documents, the parts can be dated only approximately by the process of stylistic analysis and comparison. Even then, some parts of the buildings stubbornly refuse to yield up their histories, and continue to tantalize the prying investigator.*

## INTRODUCTION

The ruins of Kilwinning Abbey in Ayrshire (NS 303432) are those of one of the three major houses of the Tironensian Order in Scotland.<sup>1</sup> They are less extensive than the remains at Kelso (Roxburghshire), founded in 1128, and at Arbroath (Angus), founded in 1178,<sup>2</sup> both of which were royal foundations, due to David I (1124–53) and William the Lion (1165–1214), respectively. In contrast, the patrons of Kilwinning were the de Morevilles. The probable founder has been identified as Richard de Moreville (*ob.* 1189), and the probable foundation date as 1187,<sup>3</sup> although dates of 1140, 1157, and 1191, have been cited in the literature;<sup>4</sup> Richard's father, Hugh (*ob.* 1162), has also been credited.<sup>5</sup> The possibility that a church existed at Kilwinning as early as 1184 adds to the confusion.<sup>6</sup> As the register books have been lost since the early 18th century,<sup>7</sup> the exact date of Kilwinning's foundation cannot now be determined until and unless fresh documentary evidence turns up.<sup>8</sup> The abbey was certainly established by 1202/7 when an abbot of Kilwinning appeared as a witness to an agreement between the bishops of St Andrews and Glasgow at a council held in Perth.<sup>9</sup>

The site (illus 1) is now partly occupied by the parish church, erected c 1775 (at which time the nave of the abbey church was pulled down<sup>10</sup>), and is dominated by a bell-tower constructed in

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ILLUS 1 Aerial view (1984) of the abbey ruins and the parish church from the south-east (*Crown Copyright: Royal Commission on the Ancient and Historical Monuments of Scotland*)

the early 19th century. The latter replaced the surviving north-west tower of the façade structure (apparently a twin-towered western transept), which had been damaged by lightning in 1809 and which was subsequently demolished in 1814.<sup>11</sup> The meagre remains of the abbey church which stretch between the two later structures are dominated by the south (gable) wall of the transept which survives to nearly its full original height. It is connected to the ruins of the west façade structure by the south wall of the nave which is preserved to a relatively uniform height of about 3.65 m. Neither they nor the fragments of the attached monastic buildings to the east and west have been subject to a close analysis, either in terms of their stylistic elements or the possible building phases. Generally, the ruins have been dated as a unit to the late 12th and early 13th centuries.<sup>12</sup>

Little archaeological investigation has taken place. The plan of the church in its final phase was published, along with some details of standing arches, in 1878, although this was before the site was cleared of later domestic structures.<sup>13</sup> Just before the end of the last century, a brief

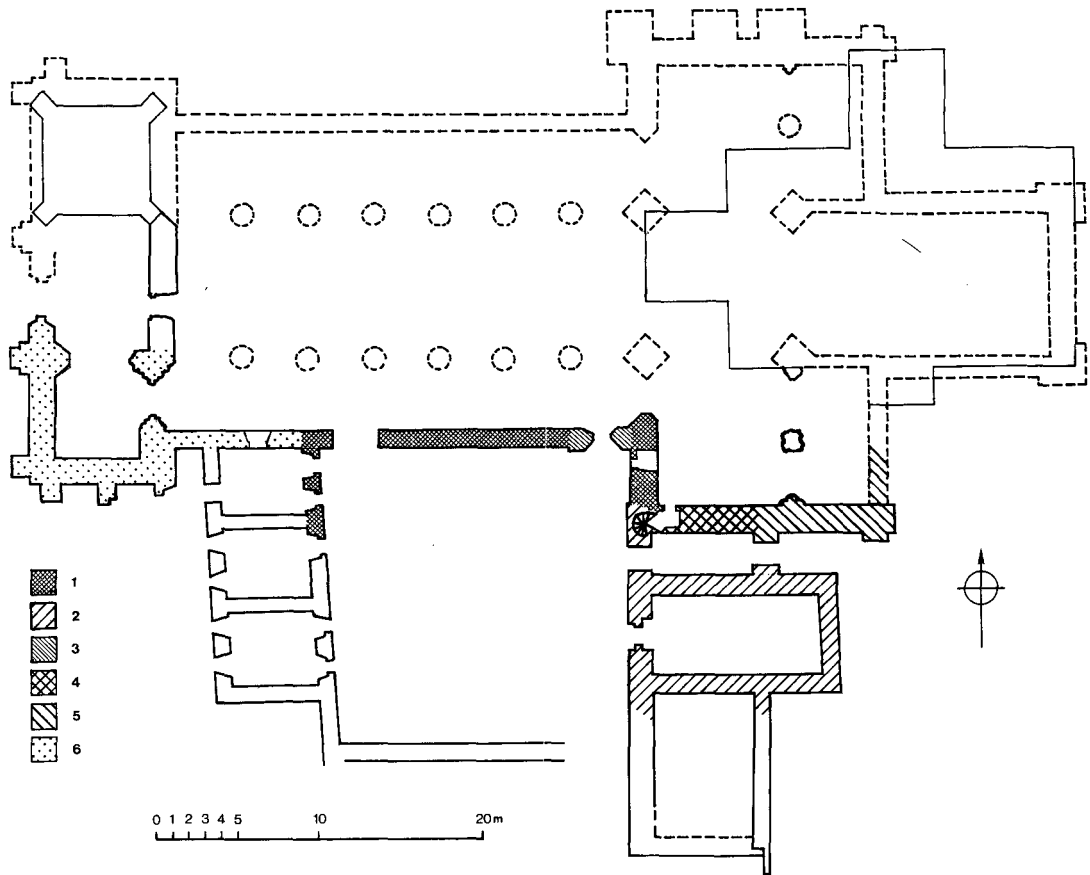
description of the remains appeared, but without any indication of the sequence or periods of construction.<sup>14</sup> Nothing has been published on the physical fabric of the abbey buildings since then.

Any attempt to interpret the remains encounters two major problems, at times difficult to surmount, even if they do not constitute absolute obstacles. The first problem has two aspects. One is the general character of the development of the later medieval (Gothic) styles of architecture in Scotland. The revival of early forms in the latest period (after c 1380) introduces an element of uncertainty regarding the dating of undocumented buildings which is compounded by the nature of the second aspect, the survival of or retention of certain early or 'Romanesque' forms well after other 'newer' motifs have been accepted. The latter tendency is demonstrated by the continued use of the semicircular arch long after the introduction of the pointed form, and by the retention of decorative motifs conventionally described as Romanesque well after the succeeding Early Gothic motifs have appeared and with which they are mingled.<sup>15</sup> The former can be recognized by the appearance of the semicircular arch in buildings of the period subsequent to the Wars of Independence, as well as the revived use of the barrel vault.<sup>16</sup> The occasional tendency for the later builders to favour some of the simpler early details helps to further possible confusion.<sup>17</sup>

The second problem – which perhaps constitutes a greater obstacle – is the existence at Kilwinning of numerous undocumented restorations of the physical fabric. Many of these repairs may perhaps be better described as extensive patching; however they are labelled, they often confuse or obscure the reading of the fabric, for they invariably seem to be present at important junctures and, indeed, may create the illusion of a juncture where none existed, or they may have eliminated one which did.

In the analysis which follows, the consequence of these uncertainties will at times be very evident, either in the decipherment of the relationship of one building phase to another, or in the identification of the correct period for a phase. Therefore, where appropriate, alternative interpretations will be considered. It must be admitted that the one which may seem most convincing to me may not seem so to a more perspicacious observer. In the reading of the remains, I generally have found myself drawn to the solution of an individual problem that seemed to best fit into a 'logical' sequence for the history of the abbey buildings as a whole. Others may disagree and, if so, I hope they will follow me into print with their corrections so that an accurate fabric history of Kilwinning Abbey may finally be composed.

None the less, despite the foregoing reservations or cautions, an archaeological and stylistic analysis of the existing above-ground remains suggests they are the result of at least three major building phases (illus 2). The first, which consisted of two campaigns, may be identified as probably comprising a small transeptal church and the eastern range of the associated monastic buildings, although it must be admitted that the suggested form of the early church may be challenged and the date of the chapter-house entrance disputed. Phases two and three are considerably less problematic. They are separated from the first phase by one of very limited extent – the construction of a new portal to the cloister – and represent successive but separate campaigns which can be interpreted as the enlargement of the early church: first at the east end, possibly repeating the initial plan (chancel, transept, eastern chapels), on a larger scale; then towards the west, perhaps introducing an aisled nave and most certainly a twin-towered western transept. It is the remains of this work at east and west which now dominate the site and which constitute the bulk of the ruins. A fourth, minor, phase, represented by the existing west wall, marks the contraction of the church due to the abandonment of the western structure.



ILLUS 2 Diagrammatic plan of the abbey church and monastic buildings, showing the consolidated masonry and the reconstructed outline of the church; compiled from plans held by Historic Scotland (222/187/40, 58–9), with a suggested dating scheme. Numbers in the key denote: (first church) 1, 1160s; 2, 1180s; (second church) 3, 1190s; 4, 1230s over 1160s; 5, 1230s; 6, 1250s. The early 19th-century bell tower and the current church (c 1775) are shown in outline. (Drawn by Margaret Finch)

## THE FIRST CHURCH

### *Description and interpretation*

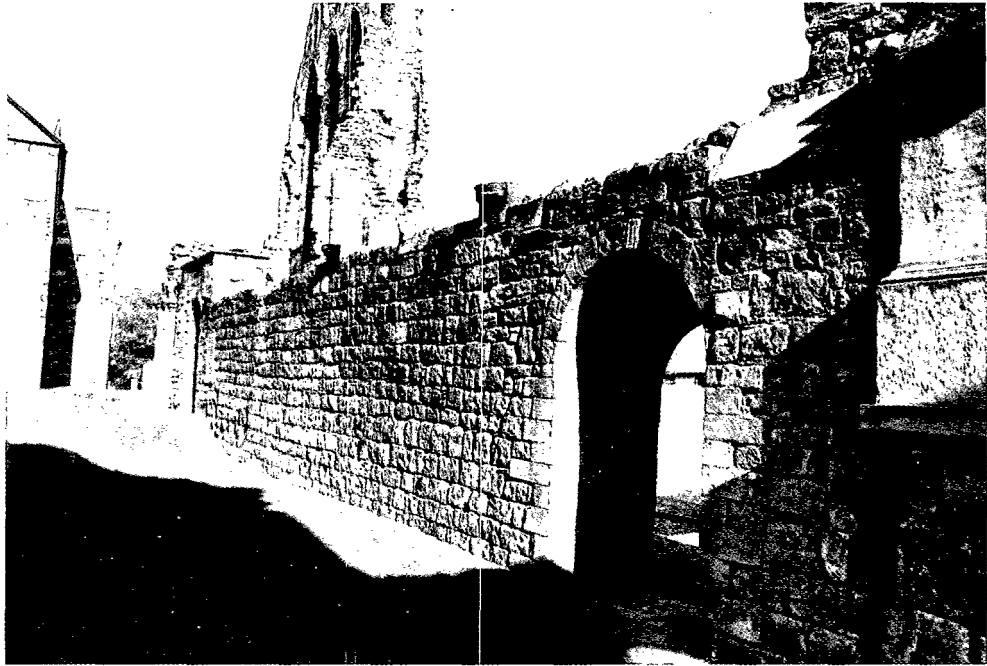
Certain features of the existing standing fabric suggest that parts of an earlier smaller structure may have been incorporated into a later rebuilding. Of this hypothetical first church, it is possible to identify only the lower parts of the south and west walls of its south transept arm and the south wall of its nave. The limits of this work may be indicated by: at the east, visible inside the (later, enlarged) transept, a slightly irregular vertical joint eight courses high in the south wall, 4.82 m from the west wall (illus 3); a vertical joint between the exterior south-west angle of the transept arm and the west wall of the east range of the cloister (illus 4); and, at the west, a vertical joint at the end of the nave, 1.60 m west of what may have been the original westernmost cloister doorway (illus 5 & 43). The only architectural features are three doorways, of which only one is unaltered, and a broad buttress of strong projection (0.56 m) at the south-west corner of the south transept arm.



ILLUS 3 South arm of transept, south wall (interior)



ILLUS 4 South arm of transept and portal to slype from west



ILLUS 5 Interior face of south aisle wall, looking east

It can be suggested that the plan of this first building consisted of a rectangular chancel, a (chapel-less?) transept, and an aisleless nave, all without vaults, although other interpretations are possible. There are no visible remains of the early chancel, nor any firm evidence of transept chapels. The remains of the rubble core of a wall (maximum extent visible 2.21 m), at the foot of the south wall of the transept (illus 3), continuing to the east of the vertical joint described above, could, however, be evidence of the south wall of a chapel: the west end is a flat surface (maximum length 0.15 m) which suggests the possibility of an interior re-entrant angle between the inner plane of the south wall of the transept and the south wall of a hypothetical chapel. Furthermore, it cannot be assumed that the first transept lacked chapels due to the construction of chapels at a later date.

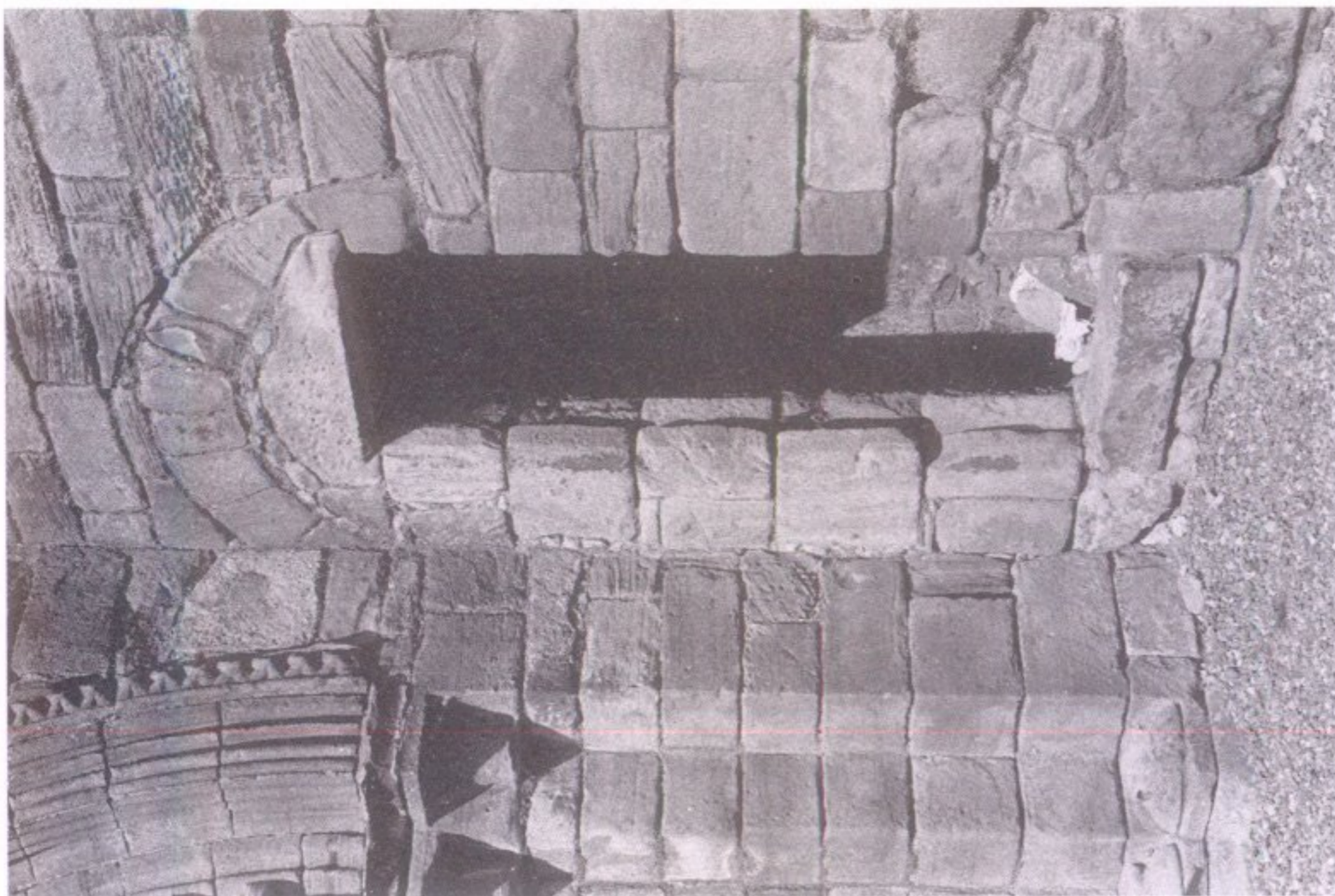
A wooden-roofed, aisleless nave is suggested by the lack of any bay divisions (in the form of either exterior buttresses or interior responds) on the surviving south wall; both its internal and external faces are completely uninterrupted flat mural planes (illus 5). The scale of the later rebuilding at Kilwinning also strongly suggests that the first church was small and aisleless, but until further excavation this hypothesis must remain simply that.

The architectural detailing is slight in the extreme. There are no base mouldings to the walls, inside or out. The masonry of the transept walls consists of courses of variable height constructed with blocks of variable size, ranging from nearly square to elongated oblongs; the majority avoid either extreme. The exterior casing of the south nave wall has been mostly robbed out except for a short stretch at the west end. The variable shape of its stones and height of the coursing is comparable to that found in the transept. By contrast, the casing of the interior of the south wall (illus 5), which is intact, consists of rough-surfaced stones of rather irregular squarish oblongs laid in wavering courses of variable width. The coarseness of the masonry may be a reflection of the intention to plaster the interior of the wall.

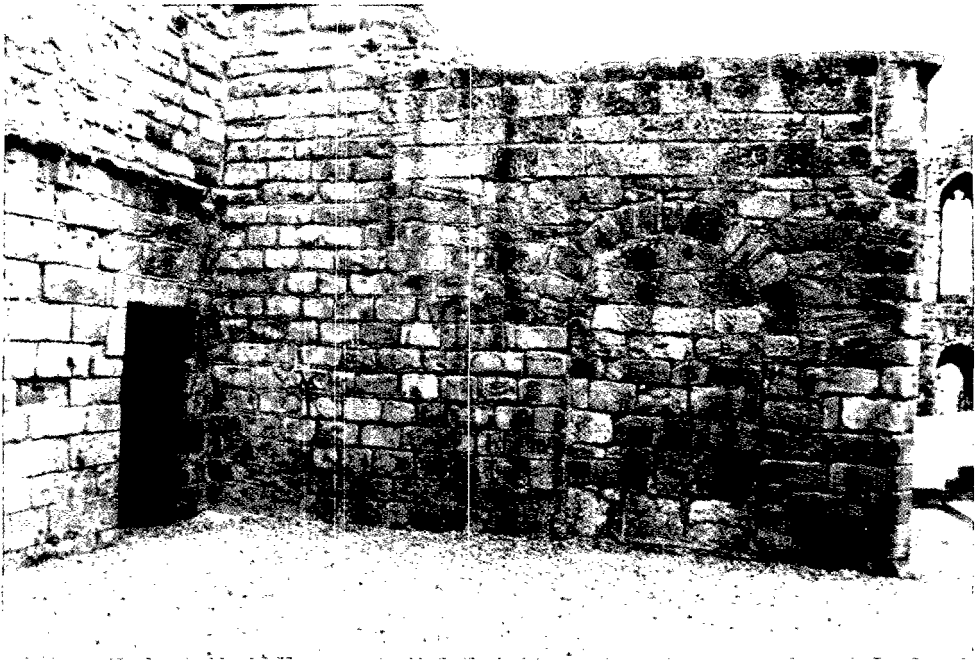
Of the three portals, the best preserved is that at the west end of the south nave wall giving access to the cloister (illus 6). The exterior (cloister side) of its jambs and the semicircular arch of its single order are chamfered (chamfer of about 76 mm); there is no impost moulding; the higher inner arch and jambs are plain. The portal is rebated for a door and the jambs are splayed towards the interior.



ILLUS 6 Exterior face of first (original) west processional portal to cloister



ILLUS 7 Exterior face of blocked portal to cloister (converted into a closet) in west wall of south arm of transept



ILLUS 8 Interior face of west wall of south arm of transept with blocked portal to cloister

A portal, with a similar semicircular arch, at the north end of the transept's west wall, formerly also gave access to the cloister (illus 7). The portal, 1.47 m wide internally and 1.22 m externally, was of one order internally and externally, and lacked an impost moulding or any decorative carvings. Its external jambs (and arch?) were chamfered originally. The portal was later partially blocked – at the time that a new grander portal was inserted into the east end of the south nave wall – and altered towards the exterior in order to create a closet with a narrow rectangular opening rebated for a door. The original form is fully visible on the interior of the transept (illus 8). The blocking – considerably thinner than the thickness of the wall – is flush with the interior plane of the transept wall. The creation of the closet involved the insertion of a new north jamb and flat lintel towards the cloister walk. The new jamb and lintel are chamfered, as is the original south jamb. That the new work was chamfered to match the existing jamb seems to be established by the fact that the inserted threshold block abuts the lowest block of the south jamb which is chamfered.

The third portal, located on the interior, at the west end of the south wall of the transept arm, probably led to a spiral stair in the south-west angle and, possibly, to an adjoining sacristy (illus 8 & 9).<sup>18</sup> It also has been altered to a rectangular form. But the east jamb, which was rebated, and first three courses of its west jamb (as well as the rebuilt courses of that jamb and lintel stone) are chamfered.

### *Affiliations*

The type of plan proposed for the first church at Kilwinning is similar to that familiar from the earliest Cistercian churches in England: Waverley (Surrey), c 1129/32; Tintern (Monmouthshire), after 1130; and Fountains (Yorkshire), c 1135.<sup>19</sup> The Cistercian churches certainly had transept chapels – one at Waverley, and two at both Tintern and Fountains – in each arm.<sup>20</sup> In Scotland, a similar plan had appeared just slightly prior to the Cistercian examples at the first church of



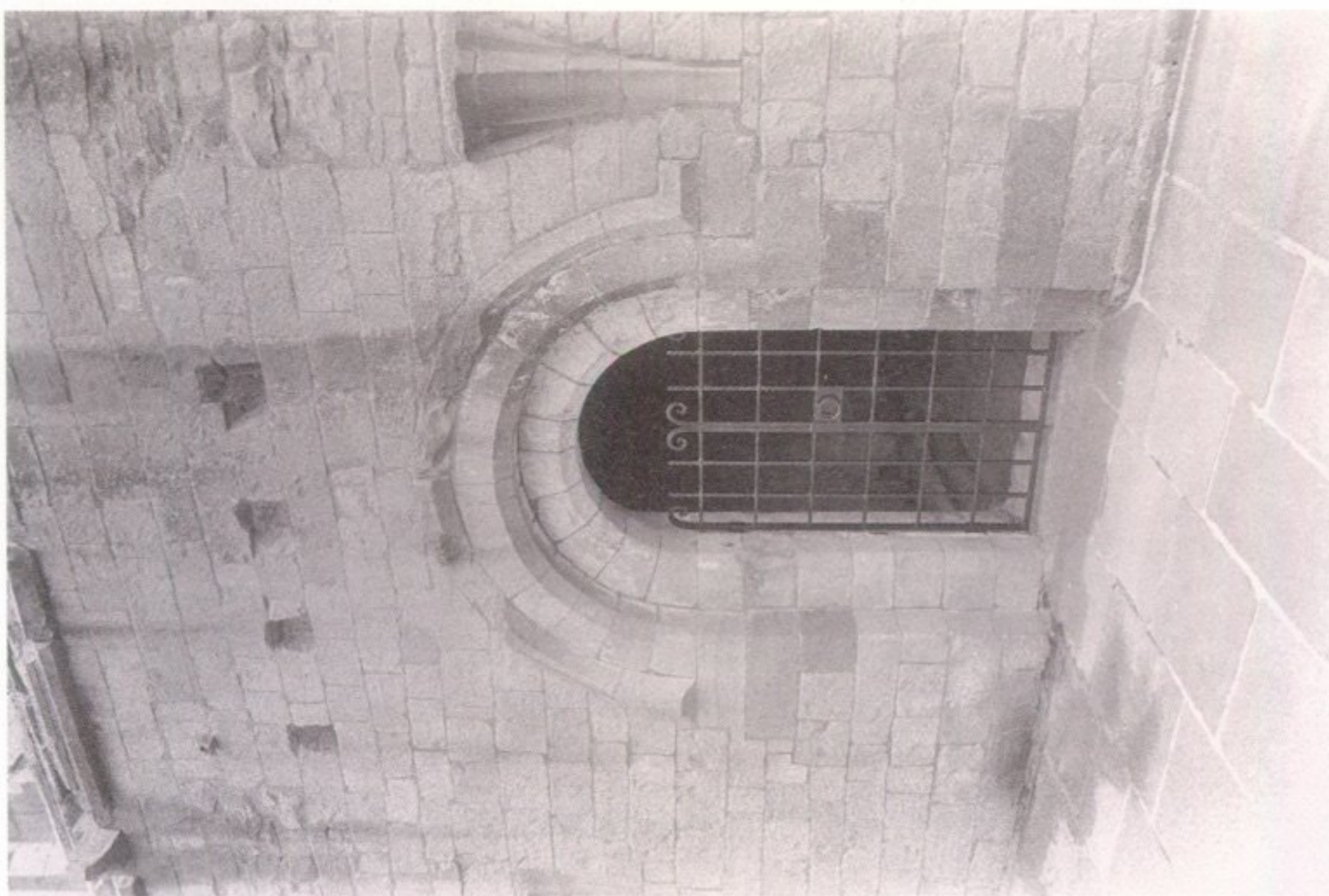
Holyrood, an Augustinian foundation established by King David I, c 1128.<sup>21</sup> It has been reconstructed as possessing a projecting straight-ended chancel, transept arms, each with a rectangular east chapel, and an aisleless nave.<sup>22</sup>

If the first church at Kilwinning was built on a plan similar to that at Holyrood or the early Cistercian churches, one can further speculate whether, in the manner of contemporary Cistercian churches, solid walls may have separated the transeptal chapels from the chancel.<sup>23</sup> That the transept arms were open to the nave for their full width – as was possibly already the case at Tintern – is more likely, for there is no evidence of responds at the junction of the south arm's west wall and the south nave wall (which is actually a chamfered angle), nor of any extension towards the east.<sup>24</sup>

It is unlikely that chancel, transept arms or nave were vaulted; there is no evidence of rib vaults and there is no articulation of the wall in anticipation of them. Nor do barrel or groin vaults seem very likely. The absence of external buttresses to the south wall of the nave could be accounted for by the presence of the cloister walk and, if the nave was vaulted, the absence of internal responds may be due to the use of corbels in their place. However, the use of corbels in the original construction would imply (aisle) vaulting. It might also be observed that, in conjunction with the later rebuilding of the nave, old corbels were not reused but, rather, new corbels were inserted into the wall. At the same time it may be noted that buttresses are not always omitted from an aisle wall adjoining a cloister. Buttresses on the exterior of a south aisle wall against which cloister walks were intended and built are found at such major buildings (with 12th-century naves) in England as the cathedrals at Durham and at Ely (Cambridgeshire) and Peterborough Abbey (Cambridgeshire). In Scotland, the west wall of the south arm of the transept and the south aisle wall of the nave of St Andrews (Fife) have very wide external buttresses with angle shafts. In contrast, at Arbroath, the south aisle wall, which may contain the earliest masonry in the abbey church, is flat both externally and internally, as is true of the south aisle wall at Augustinian Jedburgh Abbey (Roxburghshire). Premonstratensian Dryburgh Abbey (Roxburghshire) also lacks external buttresses to its south aisle wall, despite large pier-like responds on the interior. The evidence is not unequivocal; none the less, it would seem that a wooden-roofed aisleless nave is a distinct possibility.

The limitation of the architectural detailing to chamfering provides little evidence for any precise dates for the construction of the first church and is, indeed, deceptive in its simplicity and austerity, because the doorways consequently have an early 'primitive' appearance. In fact, early Romanesque forms in Scotland, during the first half of the 12th century, would probably have been more decorative and would have included two orders and an impost moulding. Similar unmoulded arches appear at Dunfermline Abbey (Fife) in the nave gallery arches, which may date from about the mid-12th century. It is of considerable interest that Dunfermline's gallery arches succeed the richly moulded arches of its main arcade.<sup>25</sup> Similarly, at St Magnus Cathedral, Kirkwall (Orkney), in the choir elevation, c 1140, the gallery consisted of arcades with three unmoulded orders and an impost formed by a chamfered stringcourse, but no capitals, following above an ornamented main arcade.<sup>26</sup> The progression from decorated to plain (or austere) is paralleled in the nave elevation of Carlisle Cathedral (Cumberland) where unsubdivided gallery openings of two unmoulded orders succeeded an arcade in which the two orders each received a hollow chamfer.<sup>27</sup> Several of the arches appearing in the east range of the cloister, dated c 1170, at Dryburgh, founded 1150/2, by Hugh de Moreville, are similar in nature, but slightly more 'elaborate', in that they are of two orders or with a label (*illus 10*).<sup>28</sup>

While it seems there can be little doubt that the portals in the south and west wall of the transept at Kilwinning are early – if only because of their subsequent alteration at a date (as will be seen) in the early 13th century – it has been suggested that the western portal to the cloister may be



ILLUS 10 Dryburgh Abbey: portal to library/sacristy



ILLUS 9 Portal to stair vice in south-west angle of transept



ILLUS 11 St Mary, Auchindoir: interior face of north portal

much later (illus 6).<sup>29</sup> An early date is suggested by its similarity to the two transept portals and by the likelihood of a portal in this position, considering that there was one in the west wall of the transept. There are no obvious signs of the insertion of the jambs or arch, especially as the jambs consist inside and out of neatly alternating headers and stretchers. A very similar but smaller scaled (north) portal exists at the ruined St Mary's Church at Auchindoir (Aberdeenshire), which also has jambs of header/stretchers set into a wall of rougher irregular masonry (illus 11).<sup>30</sup> Discontinuities in coursing at the east jamb of the portal at Kilwinning may be paralleled in the portal to the parlour at Dryburgh (illus 10). In addition, a slight disagreement between the extrados and the curve of the stones placed over it finds a parallel at Kilwinning, in the west face of the west portal of the transept (illus 7). Thus, there seem to be strong arguments to consider the portal original and not a later insertion.

One may find a similar contrast between the masonry of the inner and outer surfaces of a wall at Jedburgh in the remaining three original east bays of the south aisle wall (west of the processional portal), a wall which also lacked either interior responds or exterior buttresses. A more extreme but still only partial parallel is found at Arbroath where the south nave aisle wall, which similarly lacks internal responds or external buttresses, is built of rough and variable masonry below an internal stringcourse, above which it is of more regular and 'improved' quality. The section of wall distinguished by the coarse masonry ends on the interior (or begins?) 1.01 m west of the west jamb of the eastern processional doorway. On the exterior, the quality of the masonry is less of a contrast with the interior than it is at Kilwinning, but in general it is more random than the masonry in the other standing walls of the east end.<sup>31</sup>

Arbroath, a sister Tironensian abbey, also offers a parallel for the position and form of the west processional portal at Kilwinning, in a portal at the west end of the south aisle wall. It is, however, the reverse, for it is rebated on the interior, the splay opening out towards the cloister: thus, the interior jamb (the arch is not preserved) is chamfered while the exterior is plain.<sup>32</sup> A portal in this position, of course, is not in itself unusual.

### *Tentative conclusions*

Although the meagreness of the material provides but a slight basis for any final judgement, I would like to propose tentatively a date for the construction of the first church during the third quarter of the 12th century.

The modest, indeed, small-scale Cistercian-type plan, already known in Scotland (at Holyrood), would be appropriate during this period for a non-royal foundation, a reflection of its modest character. Although the plan is of a type associated with the earliest Cistercian foundations, it is a type that continued to appear at Cistercian abbeys founded between 1140 and 1160.<sup>33</sup> The severity and austerity of the minimal architectural detailing, retardataire in appearance, would fit well into this period, but it has to be admitted that such 'bare-bones' architecture continued into the 1170s or later, as witness the cloister buildings at Dryburgh, unless that date is much too conservative for the east range there. If a church was on the site of the abbey church at Kilwinning before 1184, its fabric certainly is not part of the conspicuous remains visible today – except as tentatively identified above – which, at the earliest (as will be discussed below), date to c 1190 (the new portal to the cloister), or otherwise from well after 1200.

If this proposed dating of a 'first' church constructed sometime between 1140/50 and 1160/75 indeed has any validity, it in turn implies that the foundation date was more likely 1157 than 1187; the founder, consequently, would therefore have been Hugh de Moreville, rather than his son Richard.

### THE EAST AND WEST RANGES OF THE CLOISTER<sup>34</sup>

#### *Description and interpretation*

The east range of the cloister now consists of the remains of a slype, the chapter-house, and the undercroft of the dormitory. A vertical joint at the south-west angle buttress of the transept arm, between it and the wall north of the slype's archway, seems to suggest this range belongs to a separate building phase from the (first) church (illus 4 & 12). Furthermore, the ashlar masonry of the east range is characterized by the use of a conglomerate (in which the pebbles are very conspicuous) not found in the walls of the church – early or late.

The slype, formerly barrel-vaulted, was, in its final phase, a passageway with a portal in each end wall, but may initially have been a closed room forming a sacristy, or a library/vestry. There was a barrel-vaulted chamber, presumably of similar dimensions, above it.

The archway from the cloister into the slype, which is neither rebated nor splayed for a door, is similar



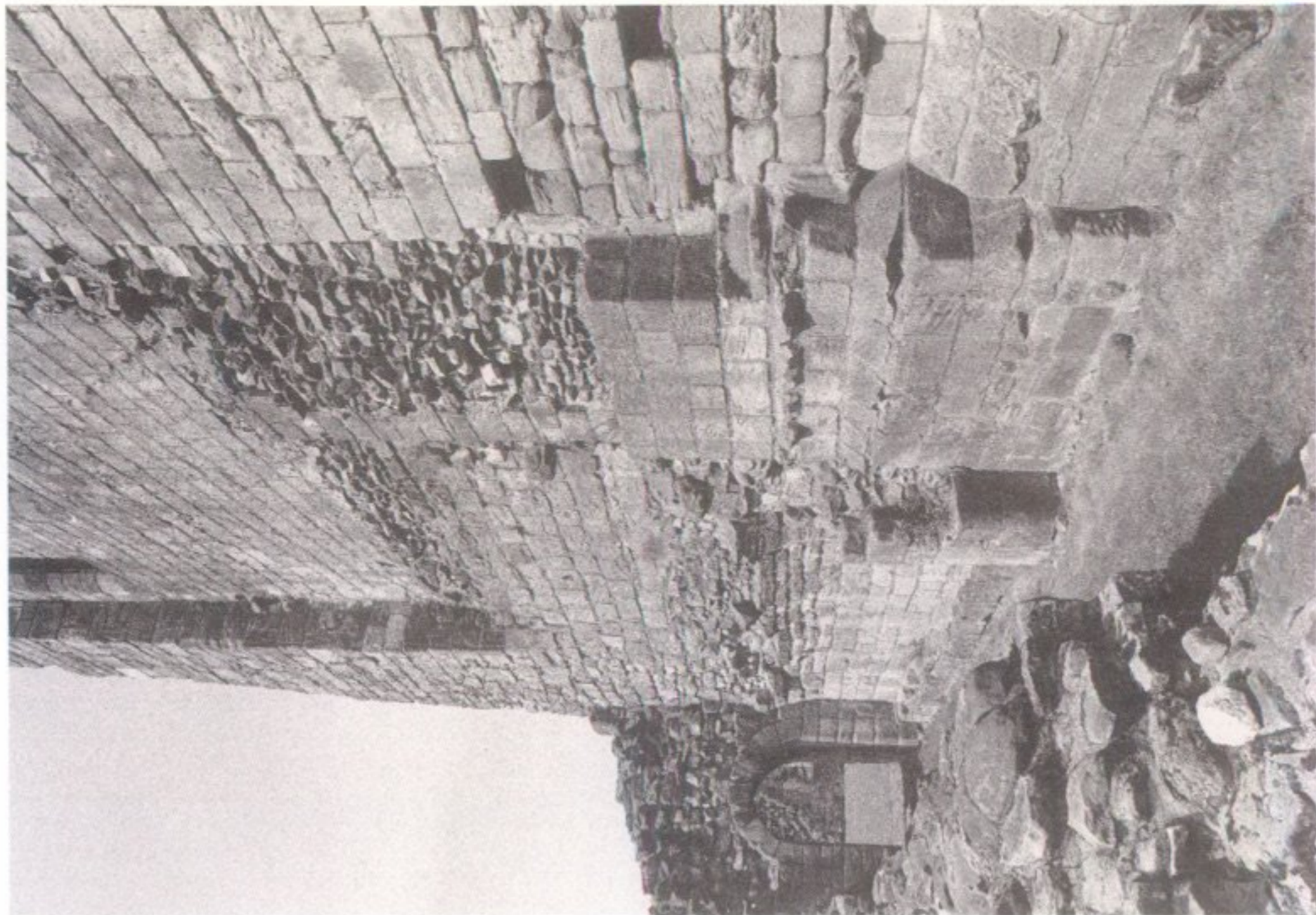
ILLUS 12 East range, portal to slype and entrance to chapter house

to the two cloister portals identified as belonging to the first church, but is slightly more elaborate (illus 13). Both the inner and outer jambs are chamfered (the chamfer of about 57 mm), and there is a chamfered label surrounding the arch towards the cloister.

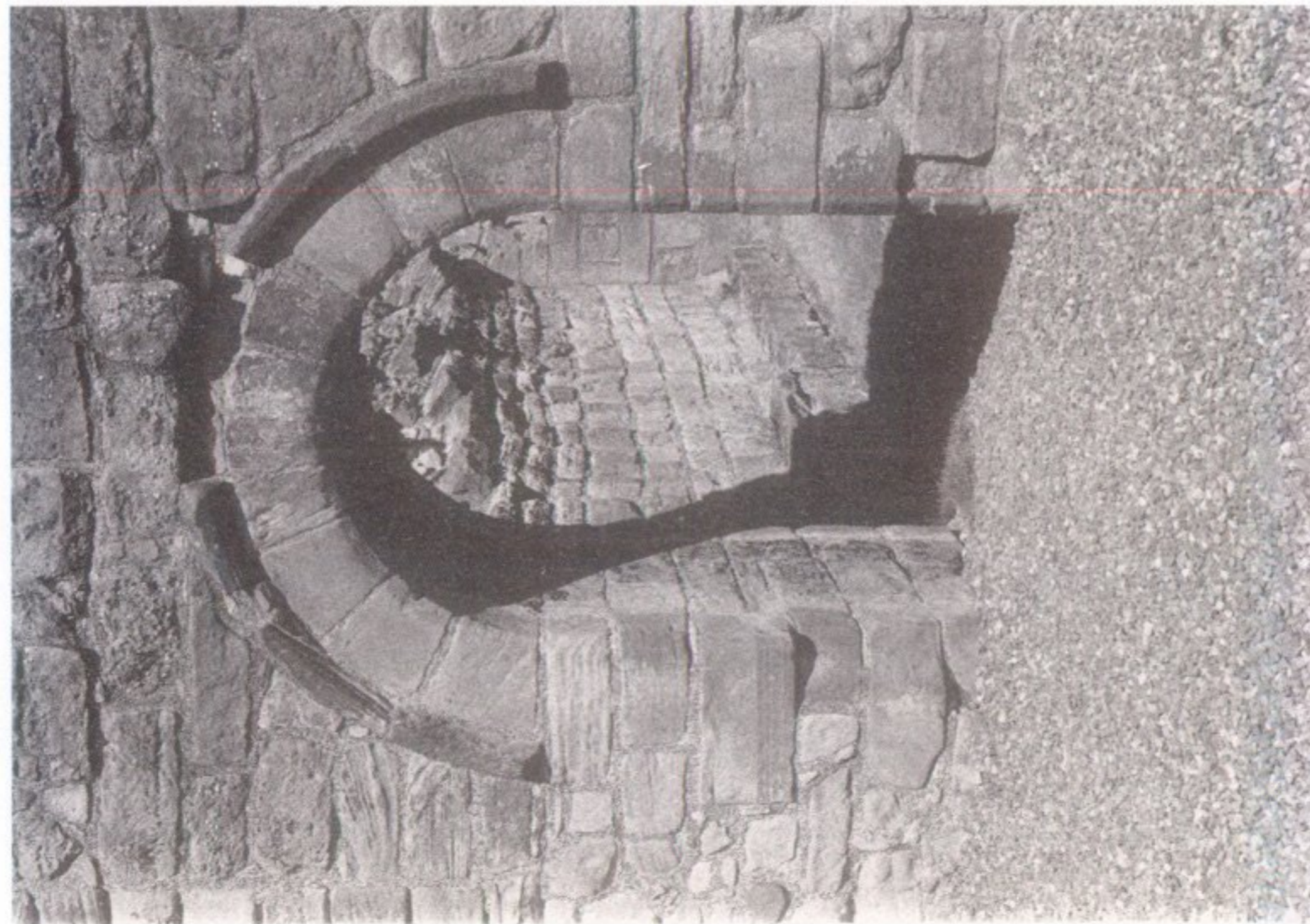
On the interior of the slype, at the west end of the north wall, there is evidence of a blocked-up opening or passageway 1.2 m wide: the infill does not bond at the angle with the west wall and there is a clear vertical joint 1.2 m east of that (north-west) angle (illus 14 & 15). Along the base of this (north) wall there is the remains of a bench, composed of two courses, one wide, one narrow, which is part of the original construction. After the blocking of the putative portal at the west end of the north wall, the bench was extended under the blockage. In other respects, the barrel-vaulted slype is not in its original form. The wall at the east end of the slype is clearly an insertion (illus 16). The portal in it is rebated, with an internal splay and rounded jambs towards the exterior (illus 14).<sup>35</sup>

The east end wall and portal may possibly even post-date the period of the enlargement and rebuilding of the east end of the church. It completely replaced the original east wall of what may have been a closed room, which thus could have functioned as a sacristy, vestry or library. But this argument is weakened by the fact that there is no evidence of an earlier wall; and, if it had existed, would not a portal simply have been inserted in it? On the other hand, if it had always been a slype, why was it necessary to insert the east wall with its portal?

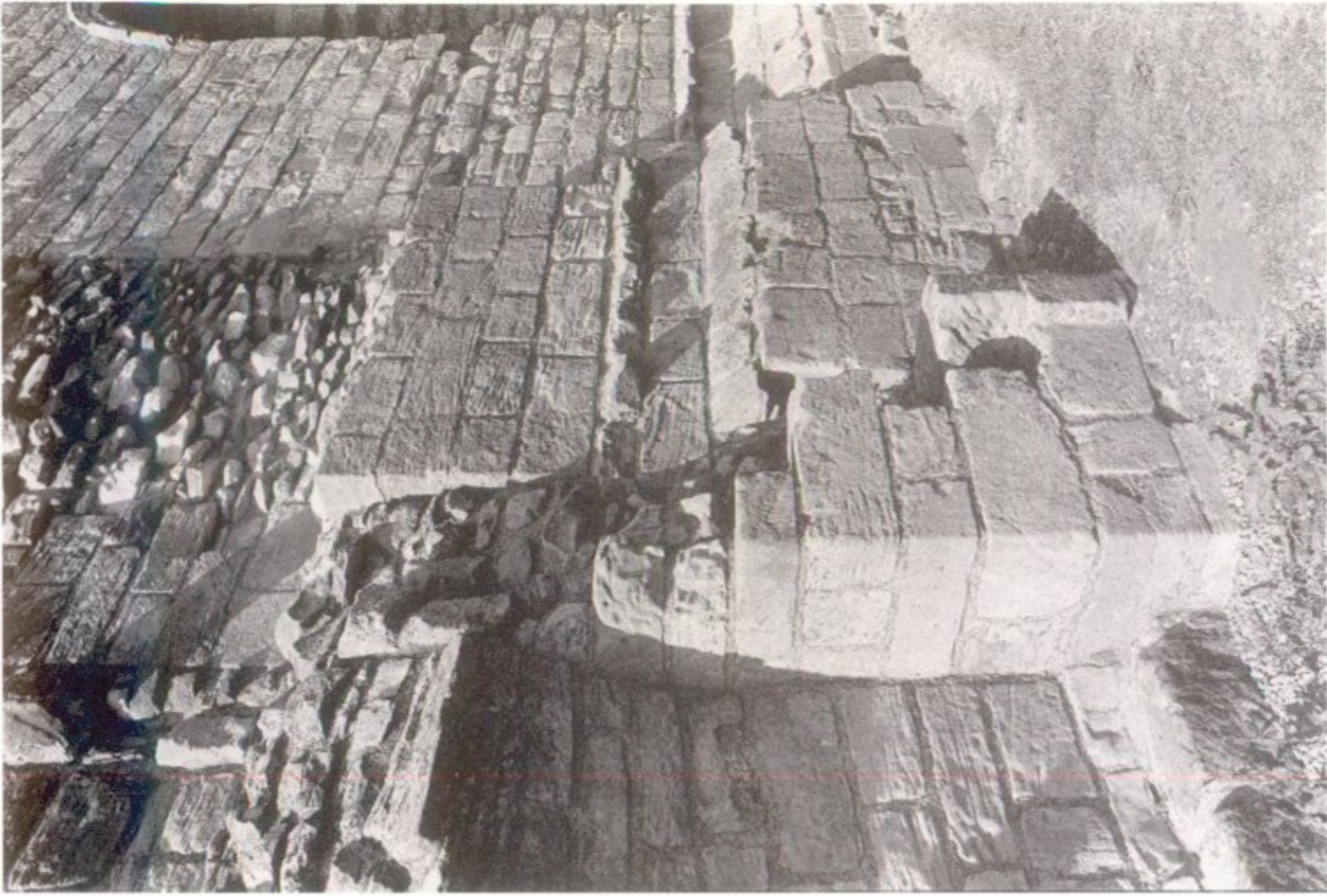
Other evidence to support the supposition that there may have been a portal connecting the slype (or closed room) to the interior of the transept is found inside the south-west angle of the transept. There, at a location corresponding to the obverse of the blocked portal, there is a small vestibule and the lowest steps of a newel stair. The vestibule is covered by the remains of a small ribbed vault: two stout unmoulded ribs spring from either side of the portal opening into the transept; however, their keystone, plus the southern half of the diagonal ribs, is missing (illus 17). The wall opposite the doorway from the transept, ie the south wall



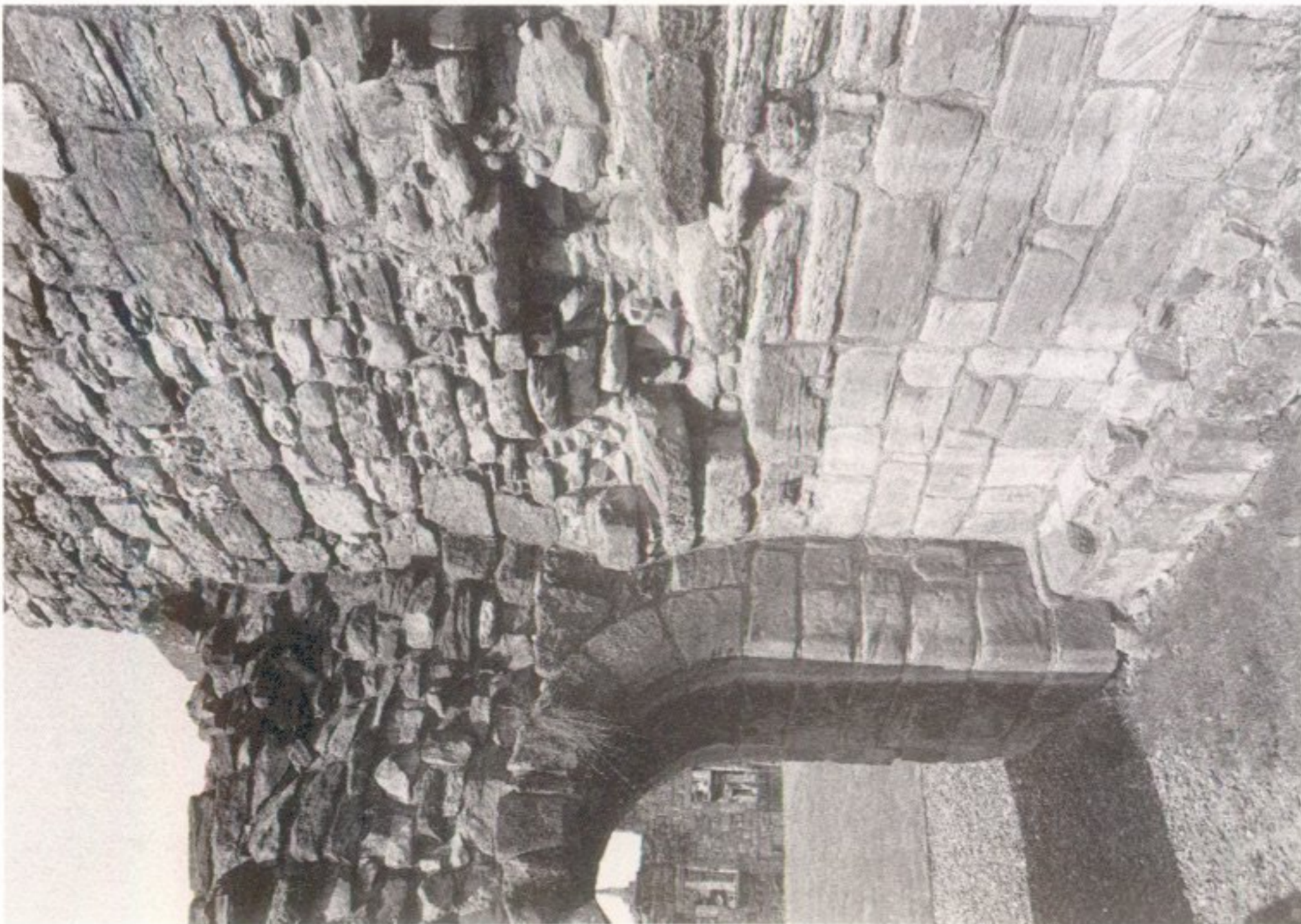
ILLUS 14 Slype viewed from east



ILLUS 13 Portal to slype



ILLUS 16 Inserted north jamb of east portal to slype and buttress of new work



ILLUS 15 West end of north wall of slype and possible blocked doorway into transept



ILLUS 17 Remains of ribbed vault of vestibule to stair vice

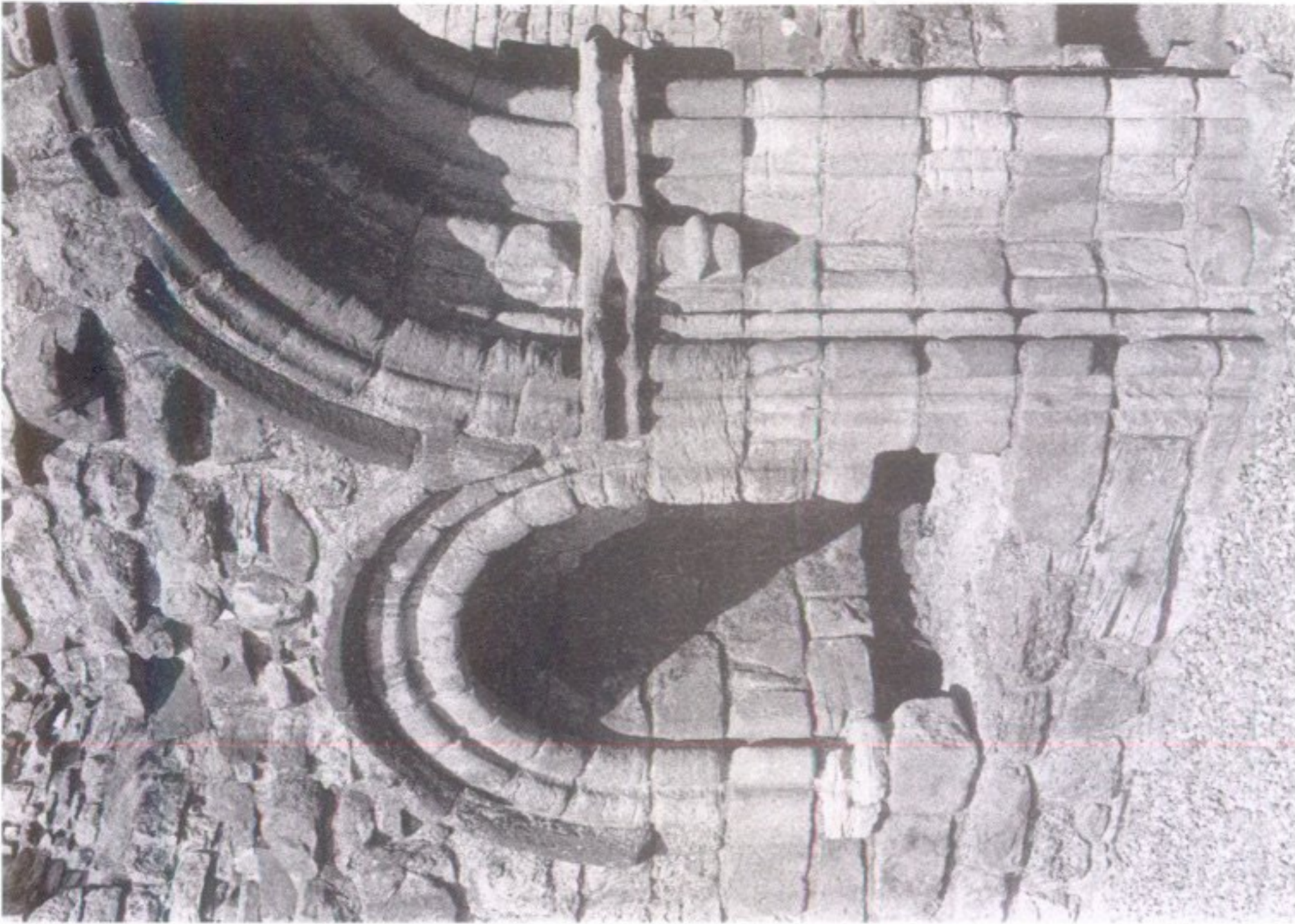
of the vestibule; does not bond in with the east wall, although the latter does bond with the east jamb of the doorway (illus 18). Nor does the south wall bond in with the mass of the steps of the vice proper to its west. The south wall therefore could represent the infill (and more) of a passage (perhaps angled diagonally?) through the thickness of the wall leading to the 'slype'. The erection of the south wall certainly necessitated the removal of the two southern ribs of the vestibule vault: only the removal of the masonry forming the south wall would allow for the completion of the ribbed vault.<sup>36</sup>

The chapter house, a broad rectangle, projected 5.4 m beyond the east face of the undercroft and dormitory above. No details of its internal elevation or mode of covering are preserved for, although the south wall stands for a good height, its ashlar facing has been robbed out above the bottom four courses. Unlike the slype, the chapter-house shows no evidence of later alteration.

The façade of the chapter-house comprises the conventional three arches, but the details are rather unconventional (illus 12 & 19).<sup>37</sup> The semicircular main archway is flanked by smaller side arches with sills four courses higher than the threshold of the central doorway. These side lights each have a single large continuous roll at the jamb, with a chamfered label. The single remaining base (north jamb, north light) is badly weathered, but the profile seems to have been composed of a torus/scotia/torus sequence. Midway through the thickness of the wall, a tympanum with two semicircular arches survives, although the centre shaft and capital have vanished in each case. The subarches are unmoulded, and the rear-arches and jambs of these lights are simply chamfered.

The central archway is richly moulded and is distinguished by the fact that the profile of the mouldings of the jambs are identical with those of the arch (illus 19). There are two exterior orders and one inner one separated by the moulded forms of the doorway proper. The outermost order and that to the interior of the chapter-house were both composed of an angle roll with a thin fillet (best seen on the interior order) flanked by a pair of thin hollows and rolls. The jamb had a triplet of shafts engaged against its face, while the other exterior order was a pair of detached shafts (both now missing). Only the detached shafts had bases (which are now much weathered); they seem to have consisted of a single, rather pronounced torus. The capital was





ILLUS 19 Entrance to chapter house: detail



ILLUS 18 South wall of vestibule to stair vice

formed by part of the continuous impost moulding that ran across all the orders. It comprised a pair of tori separated by a flat-faced band, articulated by narrow fillets. To emphasize the uniqueness of the shaft, an additional narrow torus appeared below the continuous lower one of the impost moulding; in addition, the upper part of the shaft, which was formed from a block bonded into the wall, received a shaft-ring.

The undercroft to the south of the chapter-house has been much rebuilt (illus 20): of the early structure there are only the lowest courses of the east wall with the remains of three narrow windows with jambs and sills chamfered externally and an internal splay. None of the windows preserves the head of its opening. Only three courses of the north jamb and part of the sill block of the southernmost window is preserved; of the middle window, there is only its sill block; of the northern window, the eroded sill block and three courses of both its jambs remain.

A fragment of the west range of the cloister may be identified in the ruins of the later, possibly post-Reformation, domestic structures which now occupy that part of the site.<sup>38</sup> The east wall of this range abuts the church wall just 0.64 m west of the west jamb of the cloister portal (illus 21); 1.11 m south of this juncture, there is the remains of a doorway with chamfered and rebated exterior jambs (the chamfer of 76 mm) and an internal splay, 1.06 m wide, increasing to 1.57 m. The jambs of this portal are preserved for only three courses on the south, and for three and part of a fourth on the north; it was later converted into a narrower window, the sill of which is at the top of the preserved height of the door jambs. At the juncture with the church wall, there seems to be a bond of seven courses (the stump of the wall therefore stepping down to the north door jamb). Five courses above this point (counting on the church wall), there is a thin slab corbelled across the angle (purpose?) above which the east wall of the west range once again bonds in regularly with the church wall for the remainder of the preserved height (five courses). These courses extend over the inserted window around which there seems to be a 'mandorla' of disturbance. At the south end of this range, there is the remains of another portal with chamfered exterior jambs, rebate and internal splay, of which only the threshold blocks and one course of the jambs are preserved (illus 22).



ILLUS 20 Exterior face of east wall of east range



ILLUS 21 Junction of east wall of west range with south wall of church

### *Affiliations*

The chamfered archway of the slype, with its chamfered label, is similar to several archways in the east range of the possibly contemporary foundation of Hugh de Moreville: Premonstratensian Dryburgh. The archways to the library/vestry there (of two orders, the outer with plain jambs and a chamfered arch, the inner with chamfered jambs and arch and chamfered label; illus 10), to the slype/parlour (chamfered inner arch with taller plain superordinate arch and chamfered label), and to the day stairs to the dormitory, have all been dated to c 1170.<sup>39</sup>

It is difficult to find any exact parallel for the chapter-house ensemble.<sup>40</sup> Indeed, in Scotland, no close parallels seem to exist. The general composition of the openings to the chapter-house at Dryburgh is similar to that at Kilwinning: a larger semicircular archway flanked by smaller openings each subdivided into two by a recessed tympanum.<sup>41</sup> These flanking lights have a plain



ILLUS 22 Threshold of portal at south end of west range

outer arch (and inner pointed arches) and contrast with the central doorway which is richly moulded and shafted. However, aside from the semicircular arch, there is no resemblance or duplication of details with the chapter-house ensemble at Kilwinning: there are capitals instead of a continuous impost moulding, and there are bases as well as a discontinuity between the profile of the shafts and arch mouldings; the inner jamb is continuous, although with large rolls separated by a giant dogtooth. Altogether it is therefore quite different from the portal at Kilwinning. The heavier, more conventional, forms at Dryburgh might suggest, if anything, that it is earlier in date; however, that judgement presupposes not only a linear evolution but a stricter one than is likely to have happened in Scotland.

A large continuous roll is found on the inner order of the south portal of St Mary's Church at Auchindoir (Aberdeenshire), in the context of an outer order with monolithic shafts, crocket capitals, a moulded arch with a filleted angle roll, and a dogtooth decorated label.<sup>42</sup> It provides, nevertheless, a parallel for one aspect of the side lights of the Kilwinning ensemble.

The unusual form of the shaft-ring, as part of a coursed block rather than between detached (*en délit*) shafts, may find a parallel in the jambs of the outer order of the west portal of Jedburgh, possibly from the 1180s.<sup>43</sup> At Jedburgh, a shaft-ring was carved in the middle of each block of the coursed shafts.

The lack of bases can be paralleled by the portal to the cloister at the east end of the south aisle at Furness Abbey (Cumbria, formerly Lancashire) which also has continuously moulded inner and outer jambs (of two different heights), without capitals or impost (illus 23).<sup>44</sup> The mouldings

are composed of an angle roll flanked by hollows, and there is a continuously moulded plinth under both orders, although the outer one stops short of it.

Another example of the absence of bases is found at the chapter-house doorway, possibly from the late 13th century, at Augustinian Inchcolm Abbey (Fife), founded in 1123/53.<sup>45</sup> However, here again the other details are not similar, even though they include a semicircular arch, continuous roll mouldings, and detached shafts. Continuous impost mouldings are also lacking and the moulding profiles are quite different.

Less elaborate doorways, but possibly closer in date to Kilwinning than Inchcolm, were found at the destroyed parish church of Lasswade (Midlothian).<sup>46</sup> The south portal with unmoulded arch and jambs had imposts formed by extensions of the stringcourse. The tower arch to the nave possessed continuously moulded arch and jambs with simple moulded imposts. In neither case were bases evident. The former north (now east) portal at Kirkliston Church (West Lothian) has an inner order with the same profile, a roll set against a hollow, for arch and jamb; there is no evidence of there having been any bases.<sup>47</sup> The south portal of St Cuthbert's Church, Monkton (Ayrshire), also had an inner keeled order continuously moulded – jambs and (semicircular) arch interrupted only by a thin impost – in contrast to an outer order with shafts (illus 24).<sup>48</sup> The inner order also lacked base mouldings. None of these churches, however, can be dated with any precision.

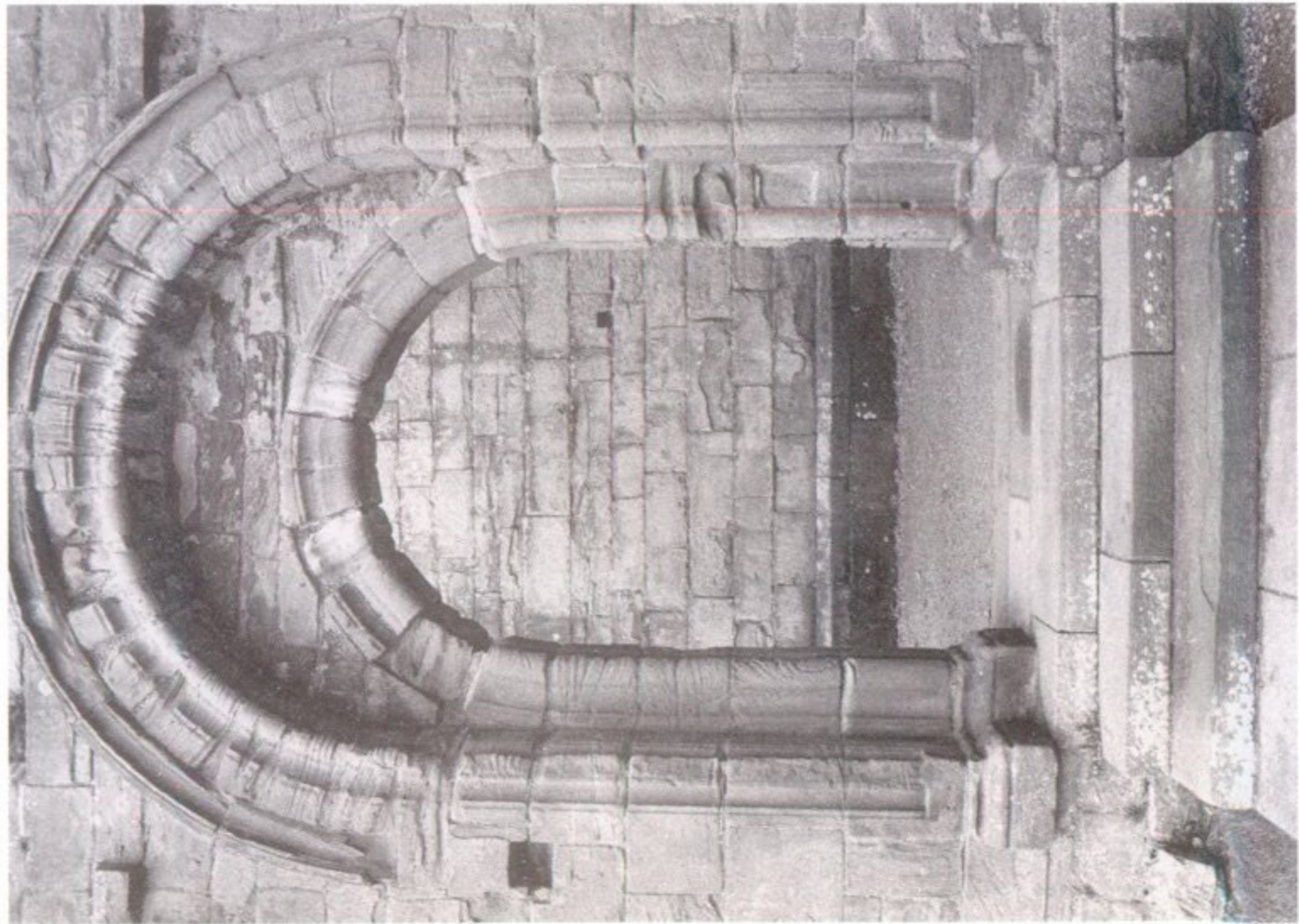
A closer stylistic parallel, but one more distantly located, may be found in the lavabo at Mellifont, the first Cistercian abbey in Ireland (Louth).<sup>49</sup> The semicircular arches of the lavabo, which has been dated to 1200–10, are characterized by the use of the same profile of mouldings for both the jambs and arches, a continuous impost serving as a capital for the two outer and single inner orders, the appearance of both keels and fillets, and a lack of bases to the individual orders.

On the other hand, the lack of close parallels among monuments on either side of c 1200, makes it necessary to consider if the chapter-house portal ensemble might not be the product of the late phase of Scottish Gothic when semicircular arches were once again in frequent use, forming a kind of Romanesque revival.<sup>50</sup>

Of these late portals, perhaps only one offers a slight similarity to the chapter-house entry at Kilwinning: that is the south portal of Tullibardine Church (Perthshire), attributed to the late 15th century (illus 25).<sup>51</sup> Others employing a semicircular arch do so either in a context of 13th-century mouldings and capital forms: as in the case of the north inner portal at St John's Church in Perth,<sup>52</sup> where the late date is revealed by the tall bases with their downward flaring silhouette; or where the details of capitals, bases, and foliage are clearly of a later period, as at the west portal of the tower at Dundee Church (Angus).<sup>53</sup> At Tullibardine, the mouldings of arch and jamb are continuous, interrupted only by an impost; bases are lacking. The impost with its two tori separated by an unarticulated scotia bears only a superficial resemblance to the weathered forms at Kilwinning which were once sharply defined. So, too, the hollows and filleted roll of Tullibardine are conspicuously shallow compared to the deep hollows and especially vigorous rolls at Kilwinning. Among the late portals, there is, I believe, no evidence for the revival of shaft-rings, nor is the curious base design at Kilwinning found later.<sup>54</sup>

### *Conclusions*

The east range of the monastic buildings appears most likely to have been constructed shortly after the first church, as the comparisons for its features seem to suggest a date after 1170/5. The earliest date, based on the similarity of the slype portal with the cloister portals at Dryburgh might be 1170. On the other hand, the closest parallels for the richer architectural detailing of the chapter-



ILLUS 23 Furness Abbey: east processional portal to cloister



ILLUS 24 St Cuthbert, Monkton: detail of east jamb of south portal

house arches implies a later date, one during the last quarter of the 12th century. The appearance of the shaft-ring perhaps indicates a date in the late 1180s. Once again, a foundation date for the abbey earlier than 1187 is implied, although construction of the east range of the cloister in particular could be placed after 1187.

## THE SECOND CHURCH

### PHASE ONE: THE CLOISTER PORTAL

#### *Description*

The portal leading to the cloister at the east end of the south wall of the church marks a dramatic contrast, with respect to both the scale and richness of its decoration, to the earlier work, even that of the chapter-house archway. It does not bond in with the west wall of the transept and, indeed, completely overlaps the north jamb of the earlier portal in that wall – which as a consequence was converted into a closet with a rectangular doorway utilizing the original south jamb as part of the narrowed opening (illus 7).

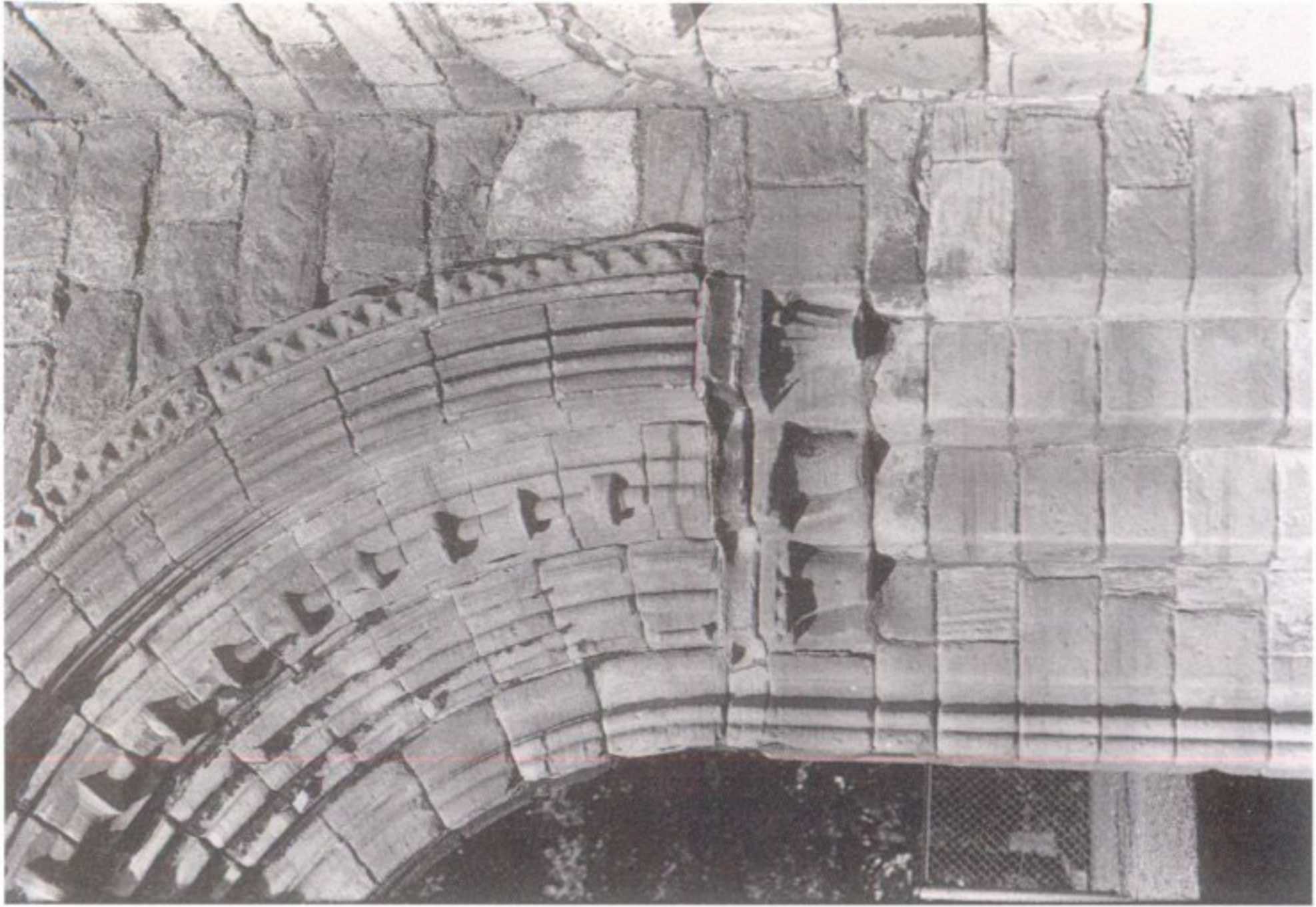
Towards the cloister, the portal is of three outer orders and a continuously moulded jamb (illus 26).<sup>55</sup> The six missing jamb shafts of the outer orders were monolithic (there is no sign of shaft-rings). The bases (two are missing on the west jamb) consisted of a torus and scotia followed by a broad, flat torus.<sup>56</sup> The six capitals encompassed two of a chalice shape, one possibly figured, one with water-leaf, and two with stiff-leaf. The three orders comprised one (the outer) finely moulded, including the appearance of an arris on the angle-roll, one (the middle) with a thin roll banded by shaft-rings (of two designs), and one (the inner) which formerly had a deeply undercut chevron or lozenge pattern meeting over a thin roll. The continuous inner jamb utilized three thin rolls (the angle one keeled) flanked by a hollow. Finally, the label was decorated by dogtooth of a modest size.

On the interior, the jambs – which were rebated and slightly splayed – of the tall, unmoulded rear-arch continue upwards three (west) or four (east) courses above the springing of the exterior arch. The level of the springing of the exterior arch is marked internally by a very narrow course. The broad rear-arch itself is only slightly pointed (illus 27). The seam with the earlier wall may be represented by a vertical joint which is packed with small stones 0.98 m to the east of the jamb (illus 28). The significance of this vertical seam is rendered ambiguous, however, because the masonry east of it obviously represents a patching of the wall due to a (later) respond having been ripped out. One might have expected the seam to abut the west side of the vanished respond but, rather, it is located farther west.<sup>57</sup> A seam to the west of the portal is not evident: the height of the jamb stones may have been determined by the height of the courses in the existing wall (the jambs are not constructed with a regular alternation of headers and stretchers). Above the voussoirs of the rear-arch, the upper (five) courses of the wall are the result of restoration, the masonry here characterized by a distinctive vermiculation of the surfaces.

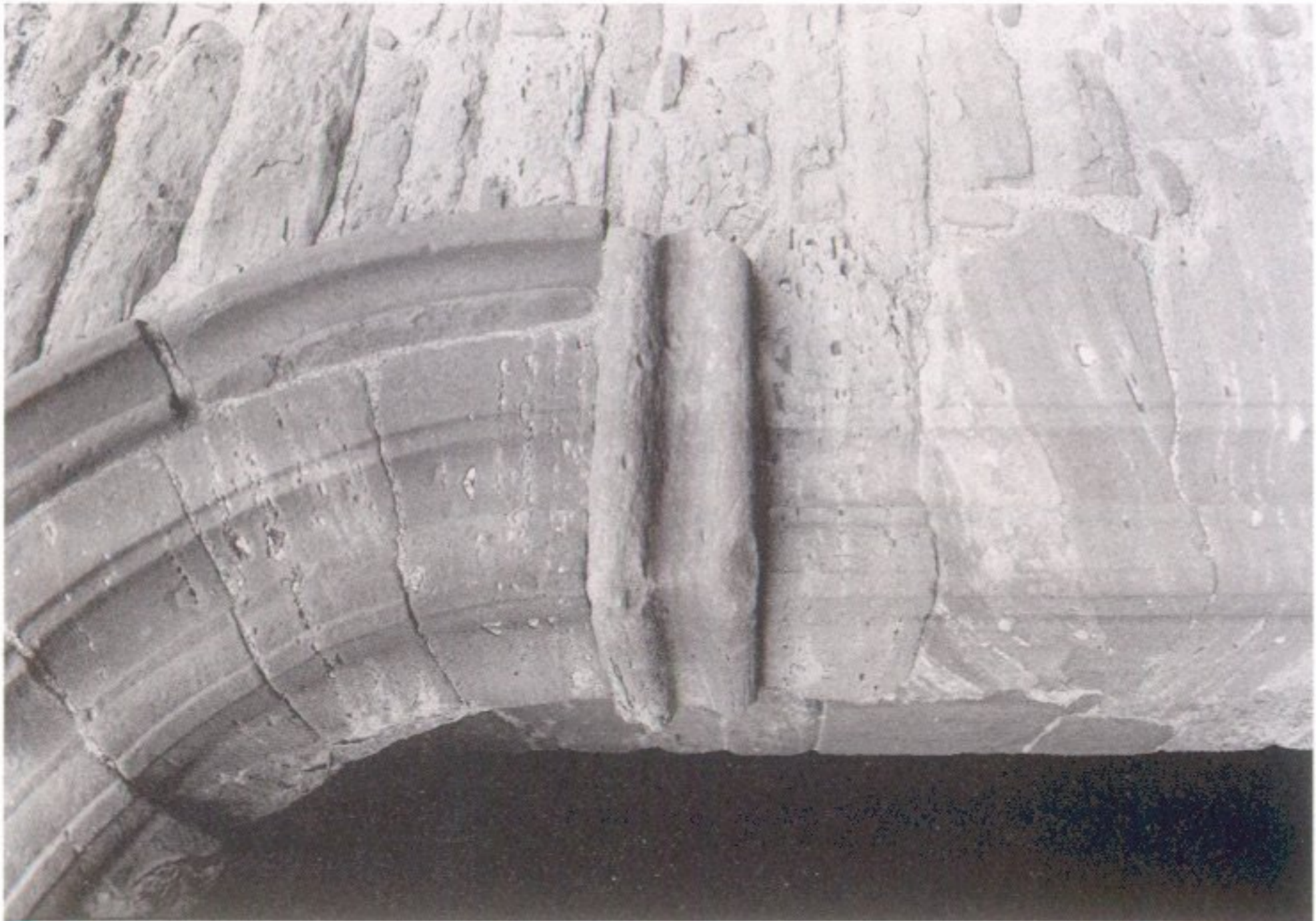
#### *Affiliations*

Among the many decorated portals from the end of the 12th and the beginning of the 13th century, there are again no very precise parallels. These portals would include: at Kelso, the north and west portals; at Dryburgh, the cloister and chapter-house portals; at Jedburgh, the cloister and west portals; at St Magnus Cathedral, Kirkwall (Orkney), the west portals; at Paisley Abbey (Renfrewshire), the east and west portals of the cloister, the north porch, and the west portal; at Elgin Cathedral (Moray), the west portal; and at Inchcolm, the chapter-house portal once again. Others which should also be mentioned are preserved at the parish churches of Lamington (Lanarkshire) and Kirkliston (West Lothian).

With regard to the profile of the bases, it is notable that it is not yet of the water-holding



ILLUS 26 Detail of east jamb of east processional portal to cloister



ILLUS 25 Church, Tullibardine: detail of east jamb of south nave portal



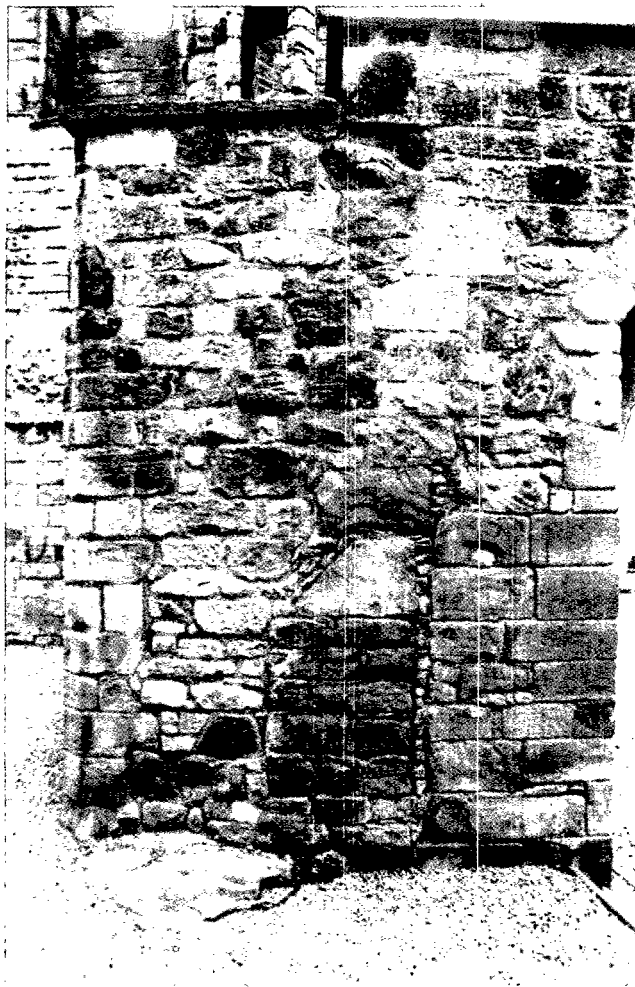


ILLUS 27 Interior of east processional portal to cloister

type, because the scotia has not become horizontal, although, due to the emphasis on the broad, rather flattish lower torus, it is moving in that direction. They are somewhat similar to the bases of the portal at the east end of the south aisle at Dryburgh (late 1190s?) or to those of the former north portal (now located at the east) at Kirkliston of perhaps c 1200.<sup>58</sup>

Water-leaf type foliage appears in Scotland throughout the west end of Kelso, in conjunction with multi-scallop type capitals, but Kelso is not precisely dated.<sup>59</sup> It also appears early on in the work at St Andrews Cathedral which was started 1160/2.<sup>60</sup> Water-leaf also appeared at Jedburgh (along with crocket) in the 1180s.<sup>61</sup> The two right-hand capitals (corresponding to the outer orders) of the former north portal at Kirkliston are also water-leaf; there they are in the context of four other capitals which seem to have been of the crocket variety, a late but not precisely datable appearance for the type, even if the suggested date of shortly before 1200 may be too conservative.<sup>62</sup>

The single water-leaf capital is carved from the same block as the two stiff-leaf examples, all together forming the capitals of the portal's east jamb.<sup>63</sup> Stiff-leaf of a primitive form appears in the early work of the crypt of Glasgow Cathedral, before 1199,<sup>64</sup> and what may be described as proto-stiff-leaf in some capitals of the north aisle arcading at Holyrood, perhaps c 1195.<sup>65</sup> But already a developed 'wind-blown' form had appeared on at least one of the capitals of the east blind arcade of the presbytery of Arbroath, sometime after 1178, certainly before 1200.<sup>66</sup> About the same time, what could be considered an early form of stiff-leaf was used for the capitals of the west portal of Jedburgh.<sup>67</sup> The 1190s, therefore, seem to be the decade in which stiff-leaf replaced water-leaf for capital decoration in Scotland.<sup>68</sup> Once established in Scotland, stiff-leaf had a long



ILLUS 28 East end of south wall of church (east of east processional portal)

life. A lushly rich form occurred on the six capitals of the inner portal of the north porch at Paisley,<sup>69</sup> while the largest displays appear in the nave arcade at Holyrood Abbey, c 1230.<sup>70</sup> Fully formed stiff-leaf also appeared in the somewhat later eastern chapels of the Glasgow crypt, after 1233,<sup>71</sup> and then in the choir c 1242.<sup>72</sup>

Due to the extensive damage, the exact form of the chevron or lozenge motif is difficult to reconstruct. The diagonal bars of the chevron spanning the hollow between the outer rolls and the middle one are widely spaced and seem to have faced in opposite directions, so a large scale lozenge spanning two blocks is the most likely result. This may be contrasted with the outer order of the west portal at Brechin Cathedral (Angus),<sup>73</sup> also badly damaged, where the diagonals – a pair to each voussoir – all pointed upwards so that a series of arrow-like motifs would have resulted, or with the middle order of the portal at Lamington Church,<sup>74</sup> where the ‘arrows’ point

away from the centre of the arch as they also do in the outer order of St Mary's, Ely (Cambridgeshire). Similar motifs more usually occur on a smaller scale as in the portals at Kelso, Jedburgh and Arbroath: a series of interlocking roll lozenges over a roll occurs on the outermost major order of the west portal at Kelso; a similar interlocking lozenge is found on the south jamb, between the detached shafts, of the west portal of Jedburgh, and a similar form again appears on the outer order, while a variant, involving only arrow-like chevrons, is found on the middle order.<sup>75</sup> Yet another variation occurs on the outer archivolt of the west portal at Arbroath wherein a thin angle roll is abutted from either side by a series of zig-zags executed as a roll, thereby producing the effect of bisected lozenges. A very similar motif is also found in two orders of the south portal at Kirkliston in the context of a semicircular arch and other orders with multiple rolls and hollows which are more Early Gothic than Late Romanesque in feeling.<sup>76</sup> The south-west façade portal at Kirkwall, c 1220?, also displays a large roll-profiled chevron of two different patterns, one forming a series of hexagons, the other 'arrows' similar to Brechin.<sup>77</sup>

The motif of the middle order, a thin roll decorated with disk-like bands or rings, is one which, in varied form, occurs on a number of the same portals. It is found at the Kelso west portal, miniature in scale, on two of the (innermost) minor orders. A ringed roll also was found on the north(?) aisle portal at Jedburgh.<sup>78</sup> The outer order of the west portal of Cistercian Holm Cultram (Cumberland) is another example, where, however, the rings are thick but do not form as much of a contrast in diameter with the roll as at Kilwinning and Kelso.<sup>79</sup> They are also present on one order of the west portal at Arbroath, and the outer order of the portal at Lamington Church. One voussoir of an arch remains at Paisley, with a large roll banded by a roll flanked by nutmeg.<sup>80</sup> Of these buildings, Kelso is undoubtedly the earliest (1160s or 1170s) and Arbroath the latest (surely, at the earliest, the early 13th century).<sup>81</sup>

The outer order, consisting of thin rolls and hollows, (several of the rolls with a distinct fillet), can again be paralleled in a general way by many of the same portals. Finely moulded orders are found on the archivolts of the north portal at Kelso, the inner order of the Jedburgh south (cloister) portal,<sup>82</sup> and the inner orders of the west portal at the same building. To this list may be added outer and third orders of the south portal at Kirkliston.

Dogtooth, however, is found on few of the above portals. It does, however, occur on the interior and exterior labels of the west portal at Jedburgh, and again on the exterior framing the tympanum, and on the label of the portal of St Mary, Auchindoir.<sup>83</sup> A giant dogtooth also occurs at Dryburgh, where it was used on both the inner jamb of the chapter-house portal and the south aisle cloister portal, thus spanning the period from the 1170s to the 1190s. No other decorative motifs at Dryburgh overlap with Kilwinning. On a smaller scale, the dogtooth motif also was used on the interior and exterior labels of the windows of the north transept's chapels, and on the exterior jambs of the north lancets, dating from the 1220s. Dogtooth also appears at Paisley on the jamb between the shafts of the south-west cloister portal, in a similar position on the north portal, and on the outer order of the west portal (and its flanking blind bays).<sup>84</sup> The archivolts of all (four) portals at Paisley are moulded, with no other decorative motifs appearing. In addition, dogtooth is also found as a major motif on the Kirkwall north and south aisle west portals, c 1215–20, in the crypt of Glasgow (after 1233; by 1242), on the Elgin west portal,<sup>85</sup> and on the rear-arches of the chapter house vestibule at St Andrews (mid-13th century).<sup>86</sup>

Uniquely, a similar combination of a ringed roll, finely moulded orders, and a lozenge-like pattern is found on the west portal at Arbroath which, however, has circular abaci, splayed rather than stepped jambs, and a semicircular arch. The last three features, as suggested above, probably indicate a date in the early 13th century.<sup>87</sup>

Formally, the cloister portal at Kilwinning seems to fit into a series of portals characterized

by a distinction between the moulded jamb of the actual opening and its surrounding orders which, in contrast, have detached shafts. The simplest, if not necessarily the earliest of this format, is the present east portal at Kirkliston ('shortly before 1200'?). It has an inner jamb order – as noted – of continuous profile interrupted by the capital, and without a base, in contrast with the two outer orders which have plain unmoulded archivolt and monolithic shafts with torus/scotia/torus base profiles. Although the jamb capitals form a continuous band with the outer orders, they are of a different design. The eastern portal from the south aisle to the cloister at Paisley is basically similar, although less austere than that at Kirkliston.<sup>88</sup> The mouldings of the inner jamb and arch have the same profile consisting of rather coarse shafts or rolls and hollows. There is but a single outer order. The foliage of the capitals forms a more or less continuous frieze. Instead of the shafts at Paisley, the north transept north portal (c 1165–75) at Furness has hollows at the inner jamb and arch, interrupted only by an abacus and, of course, is without bases; there are rather squat water-leaf capitals to its grander display of three orders. On the inner jamb and the middle orders, the emphasis is on the hollows at the expense of the rolls.<sup>89</sup> The west portal (c 1175) of Cistercian Calder Abbey (Cumberland) 'advances' beyond Furness's north transept portal by the elimination of the abacus as impost for the inner jamb which is modestly accented by a solitary angle roll.<sup>90</sup> At Holm Cultram, the west portal (c 1180) of the nave follows a similar format to Furness. It has no capitals at the inner jamb (which is like that at Paisley, but with thinner shafts), the abacus only continuing from above the water-leaf capitals of the four enframing orders which are more finely moulded. The south-west portal (c 1185) at Cistercian Jervaulx (Yorkshire), more modest in scale (reflected in its two orders rather than three), but richer in detail, also includes a contrast between the door opening and its enframing orders through the former's continuous mouldings, conspicuously baseless, and the latter's moulded bell capitals, detached shafts, and bases raised on plinths.<sup>91</sup> (Dogtooth of medium size is found on the jamb between the shafts and again, smaller, on the inner order.) Owing to the elimination of the impost/abacus, as well as of a capital for the inner jamb, and the presence of stiff-leaf capitals and dogtooth, Kilwinning seems the latest of this series.<sup>92</sup>

This format does not seem to be a necessarily Cistercian type, as it contrasts with the west portal at Fountains Abbey (Yorkshire), c 1160, where there are major and minor orders (the major ones detached shafts) with tall capitals forming a continuous frieze linking them with the door jamb which is slightly set apart by its greater width and the complex of mouldings on its return face, in the latter respect to some extent anticipating the later development of the inner jamb as a distinctly separate element.<sup>93</sup> The numerous, and varied, fine hollows and rolls of the archivolt mouldings, derived from eastern French sources, do, however, probably account for similar sets of mouldings in later doorways.

Portals at Arbroath (west), Brechin (west), Arbroath (north), Paisley (south, north and west), Holyrood (west), perhaps climaxing at Elgin (west), are, in contrast to the format described above, characterized by more widely splayed jambs with – except at Arbroath – minor orders between the major, and with curved abaci, so the main jamb reads continuously with the sequence of the outer orders. All of these portals can be dated between the early and the mid-13th century.

Typologically, the portals to the chapter-house and nave south aisle at Dryburgh (c 1170 and c 1195) seem midway between these two formats. A distinction is maintained between the door-opening proper and the surrounding orders in the chapter-house portal by virtue of its continuous mouldings which are further accented by the large dogtooth between them. In the south aisle portal, capitals and abaci have been reinstated, although the shafts are coursed in distinction to the detached monolithic shafts of the three outer orders (as also in the chapter house portal). In both cases, however, the jambs are splayed despite the stepped profile of base plinths and abaci.

The archaic flavour of the semicircular arches and the strongly stepped arch orders – wherein the flat planes (although moulded) at right angles of the voussoirs are emphasized – is belied by the lush stiff-leaf foliage of the west jambs of the processional doorway (in contrast to crocket capitals on the east side). The south portal at Kirkliston also has elements of both types for it has an extended inner jamb with slender (baseless?) angle shaft and three orders rising from five monolithic shafts in a major/minor arrangement placed on a diagonal. As the inner order is decorated like the others, and the capitals form a continuous band, the portal is more conventional in format than Dryburgh's.

### *Conclusions*

It may not be as impossible as it may at first seem to date the new cloister portal with precision, that is, within a range of less than two decades. As a portal of the general 'Transitional' type, it could be (and has been) conventionally broadly dated c 1180. Comparison with numerous other portals which have similar features, those also only approximately dated, suggests a possible construction date between c 1180 and c 1200 or slightly later. The appearance of the two stiff-leaf capitals, however, makes it most unlikely that the portal is any earlier than the 1190s. Although the chevron motif has a life into the 1220s (Kirkwall), the appearance of water-leaf does not seem to have extended beyond the 1190s. Even such a dating, however, would seem to lend support to the argument advanced earlier that the abbey was founded well before 1187, which date indeed might be a *terminus post quem* for the portal. If the portal dates c 1190–1200, then the fabric into which it is inserted must be older by some decades in order to allow time for the construction and use of the church, and then the need, or a feeling of the need, for changes to develop. One could also entertain the possibility that the doorway was the result of a gift of Richard de Moreville, either made shortly before his death in 1189 or stipulated in his will. This may have been the origin of the later confusion about the founder of the abbey.

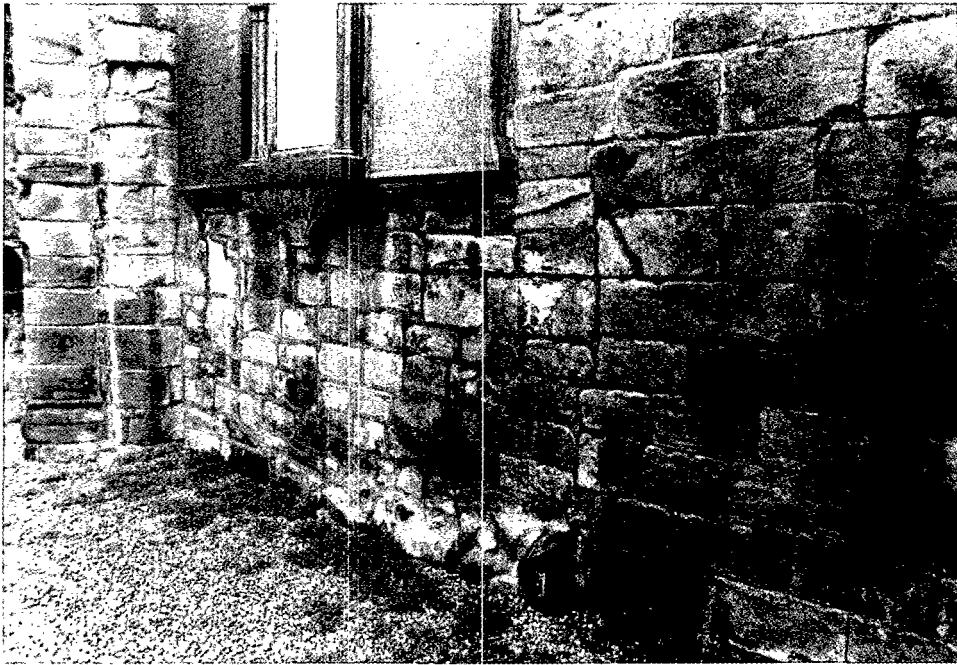
## PHASE TWO: THE REBUILT EAST END

### *Description and interpretation*

The construction of a new portal to the cloister, giving access to it from the east end of the nave, may have been a necessary preliminary to the remodelling or, rather, the rebuilding of the east end on a much larger scale. The new rather grand portal allowed the closure of the smaller unpretentious original portal at the north end of the west wall of the transept's south arm, and could have facilitated access to the monks' choir when it was removed to the nave while rebuilding proceeded. The reconstruction of the east end, possibly on an enlarged scale, produced a plan with an east aisle to the transept's arms, providing two bays in each that could function as chapels, and an aisleless chancel.

The vertical seam between the enlarged forms on the east side of the transept arm and the original structure can be read most clearly on the exterior, where the broad buttress immediately east of the end of the slype marks the beginning of the new work (illus 14 & 16). Its plinth design, of a roll one course above a sloping setback (which consists of one course), continues one course lower along the surviving south face of the east aisle, the setback expanded to two courses over a narrow chamfered course. There is a base for a detached nook-shaft on the narrow east face of the buttress, but it seems a shaft was never placed in position for there is no sign of a capital.

Inside, it will be recalled that the eastern limit of the gable wall of the first church has been identified with a simple vertical joint 4.82 m from the west wall of the transept (illus 3 & 29). It must be admitted that this juncture is problematic, for the masonry east of this seam – between it and the respond of the south arch of the new east aisle – has the appearance of being older than that otherwise identified with the first church in



ILLUS 29 Lower east end of interior south wall of transept

the transept. This area of masonry, eight courses high (to the bottom of the three later memorial plaques which now hide the section of the wall equal to the upper half of the respond) is not itself uniform for, at the east end, below the eastern plaque, the more or less regular coursing stops and is replaced by ashlar of a wide range of sizes and shapes (illus 30). In its lowest seven courses, the respond does not course in with the transept wall, but just enough is visible between it and the eastern memorial plaque to reveal that the upper eight courses do.

The horizontal juncture of the new work with the old transept is even less clear (illus 3). It is probably marked by the remnant of a stringcourse on the south internal face, 12 full courses above the existing dirt floor; and on the west internal face, about the same level – just above the arch of the blocked west portal to the cloister. The former stringcourse dies out towards the east: there is no evidence that it has been cut off the narrow course of blocks which continue its line to the east (before it disappears behind the memorial plaques). The masonry on the south wall courses evenly across the entire width between the level of this string and the sill of the three lancets above (a full 19 courses). However, it does not course across to the west face between this stringcourse and one on the west wall under the sill of the west lancet, eight courses higher; the masonry above the higher west string relates to the (new) window – of which only the south jamb remains – in the west wall, the sill of which was lower than that of the south lancets (illus 31). Somewhat confusingly, the masonry does not course regularly across the south-west angle between the two strings which mark the levels of the window sills south and west; in addition, at the west end of the south wall, the five upper courses suddenly become seven.

On the exterior face, the line between the new and old is clearest on the west face, due to a change in the shape of the stones, from squarish oblongs to a greater use of elongated oblongs (illus 4). The horizontal junction on the south face is not now clearly evident. It seems most likely that the end (gable) wall was completely rebuilt at least above the level of the upper barrel-vaulted chamber (illus 32). If this, indeed, was the case, it might explain why its plane diverges (to the north-west) with respect to the walls of either barrel-



ILLUS 31 South-west interior corner of south arm of transept



ILLUS 30 South respond of east aisle of south arm of transept

vaulted chamber: the vaults would have prevented the divergence between the planes from being apparent during construction.

As to the new south-east aisle, even though only part of the southern of the two bays remains, it is enough to reconstruct the design (illus 33). The pier between the chapels, which does not line up with the nave south wall, is unexpectedly complex, as it was originally composed of 12 shafts of which two were detached (the axial one on each of the east and west faces) and of which four – the diagonal pairs – were keeled (illus 34). The axial shaft, north and south, also keeled, was larger and a shaft of the same size is found on the south respond. The respond, however, not otherwise shafted, is formed by a broad buttress-like form with widely chamfered angles (illus 30). The former pier or respond between the north chapel and the chancel (wall) may be indicated by the remains of one round shaft, thinner than those of the pier, built into the south wall of the 18th-century parish church – if it is *in situ*: this half-shaft lines up with the minor keeled shaft of the aisle pier, rather than the axial one; nor is it in the line of the (later) nave arcade (illus 35).

The pier and the remaining arch of the east aisle of the transept have a number of distinctive features which emphatically separate them both stylistically and chronologically from the cloister portal. The bases consist of a narrow roll and hollow above a flaring ovoid foot. The capitals (illus 36), of the general moulded bell type, are notable for their compression: a roll between two astragals form their upper edge succeeded by an abacus consisting of a hollow flaring out to a fillet – all elements following the section of the supports below. The inner order of the arch – the orders are not clearly defined – was composed of a triplet of large rolls, the middle, largest one with a fillet. The other, finer mouldings, consisting of rolls and hollows, included a line of dogtooth facing the transept space. The label was flanked by rows of nutmeg and had foliage stops.<sup>94</sup>

*Of the upper elevation little remains. A wall shaft of thin triplets, the middle one with a fillet, rose from the impost above the detached shaft of the pier. The second storey seems to have been a tall gallery-like arcade of which the three bases (on curved plinths) for shafts at its south jamb remain. The fragmentary south spandrel of the gallery opening retains portions of a blind, rather plate-like, encircled quatrefoil (illus 37). It has a moulded frame, and circular knobs marked the junction of the lobes. Immediately above is the chamfered south jamb of the southernmost clerestory window.*

These remains suggest that the second-storey openings consisted of an arch of two orders, with detached shafts, subdivided by a central shaft. Above, the clerestory may have consisted of a triplet of narrow openings (of equal height?) with simple chamfered jambs. The possibility of three openings in the clerestory is suggested by the fact that the surviving south jamb is located over the outer order of the gallery opening, indicating that the clerestory composition was wider than the arch below.

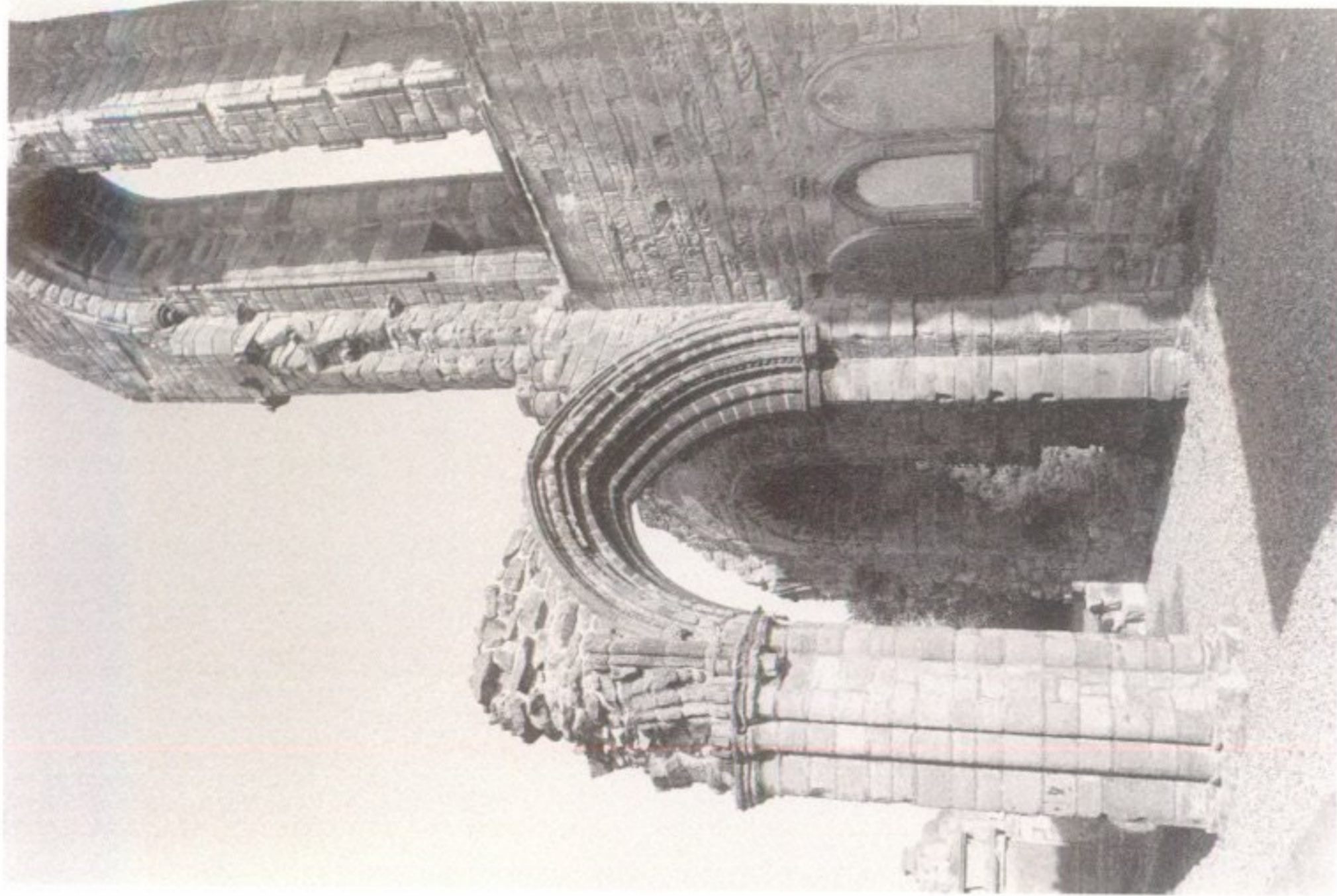
The aisle was rib-vaulted (illus 38). In the remaining south bay, the diagonal rib was formed by a triplet of rolls – the larger middle roll with a fillet. Both the diagonal and wall ribs sprang from small bell-shaped corbel-capitals. The inner jamb of the aisle's south window is plain, except for a simple label.

The jambs of the three south lancets of the gable wall were moulded – a thin continuous roll – with an order of detached shafts with two sets of shaft-rings and moulded capitals forming an outer surround. A passageway ran through the wall at their sill level. Above the lancets, at the base of the gable, there was a small oculus, with a thin roll as a frame, flanked by pairs of short lancets with chamfered jambs: a label skipped continuously over all the arches. A second passageway also ran through the wall at this level, connecting with a vice at the south-east angle. (A stair vice began at the level of the roof-space over the chapel vaults: its lower exit is completely invisible due to later restorative conservation; the upper exit to the gable passageway is still visible.) The lancet in the transept's west wall, of which part of the south jamb remains, had a detached jamb-shaft with a ring and a roll moulded jamb towards the interior.

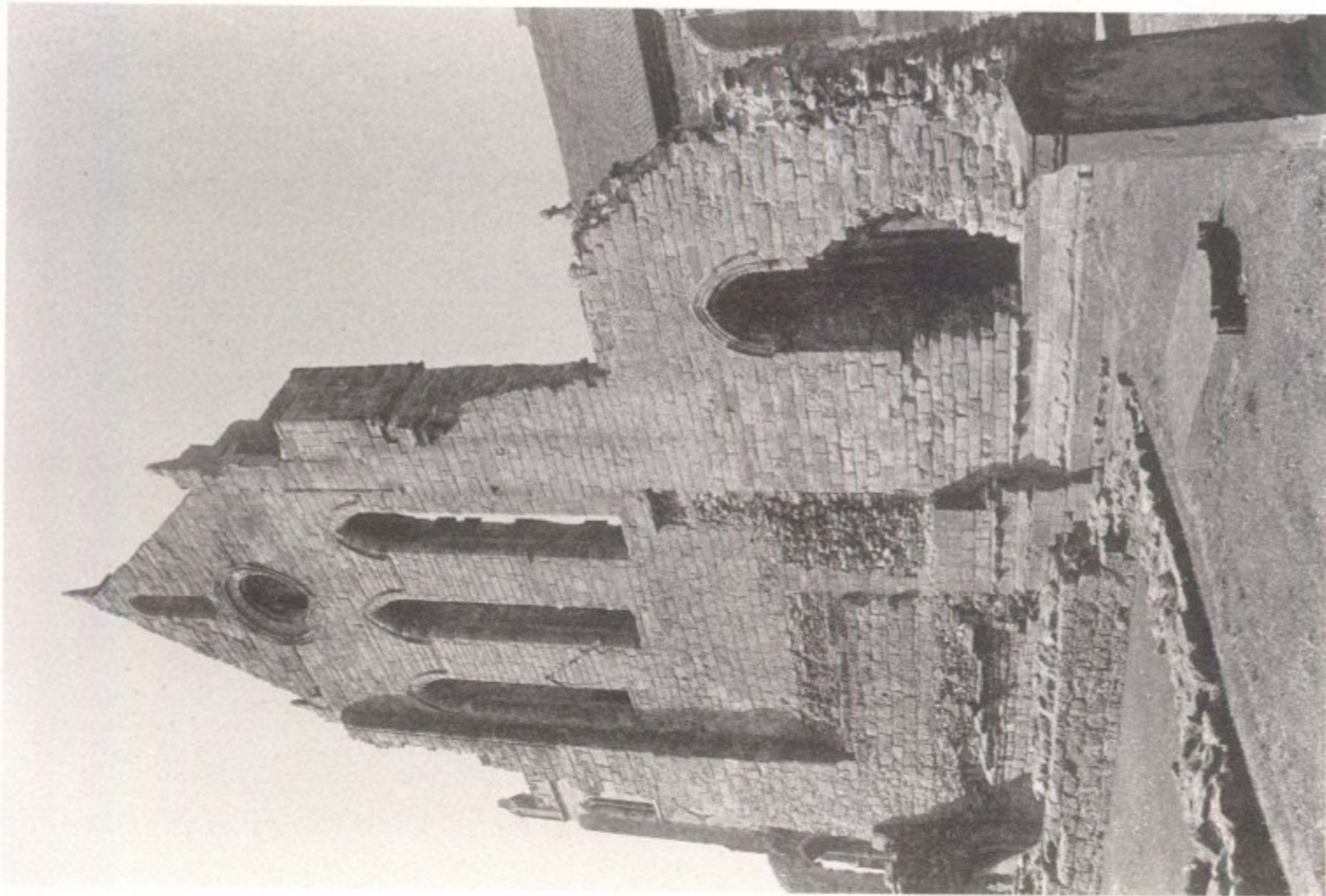
On the exterior of the transept, there was a heavy solid buttress at the south-east corner of the aisle. The south lancet of the chapel bay had a chamfered inner jamb with an outer order formed by detached shafts, moulded bell capitals and a moulded arch. At the level of the abutment of the former aisle roof against the east wall of the transept, an angle turret with coursed angle shafts began. (Although the south-east corner has been rebuilt, the weathered base for a shaft remains.) In addition, there is also a large capital with sword-leaf foliage corbelled into the wall at this point: its purpose is not at all clear, especially as it supports the springing of an arch.

The south lancets of the gable were more austere on the exterior than they were on the interior, their

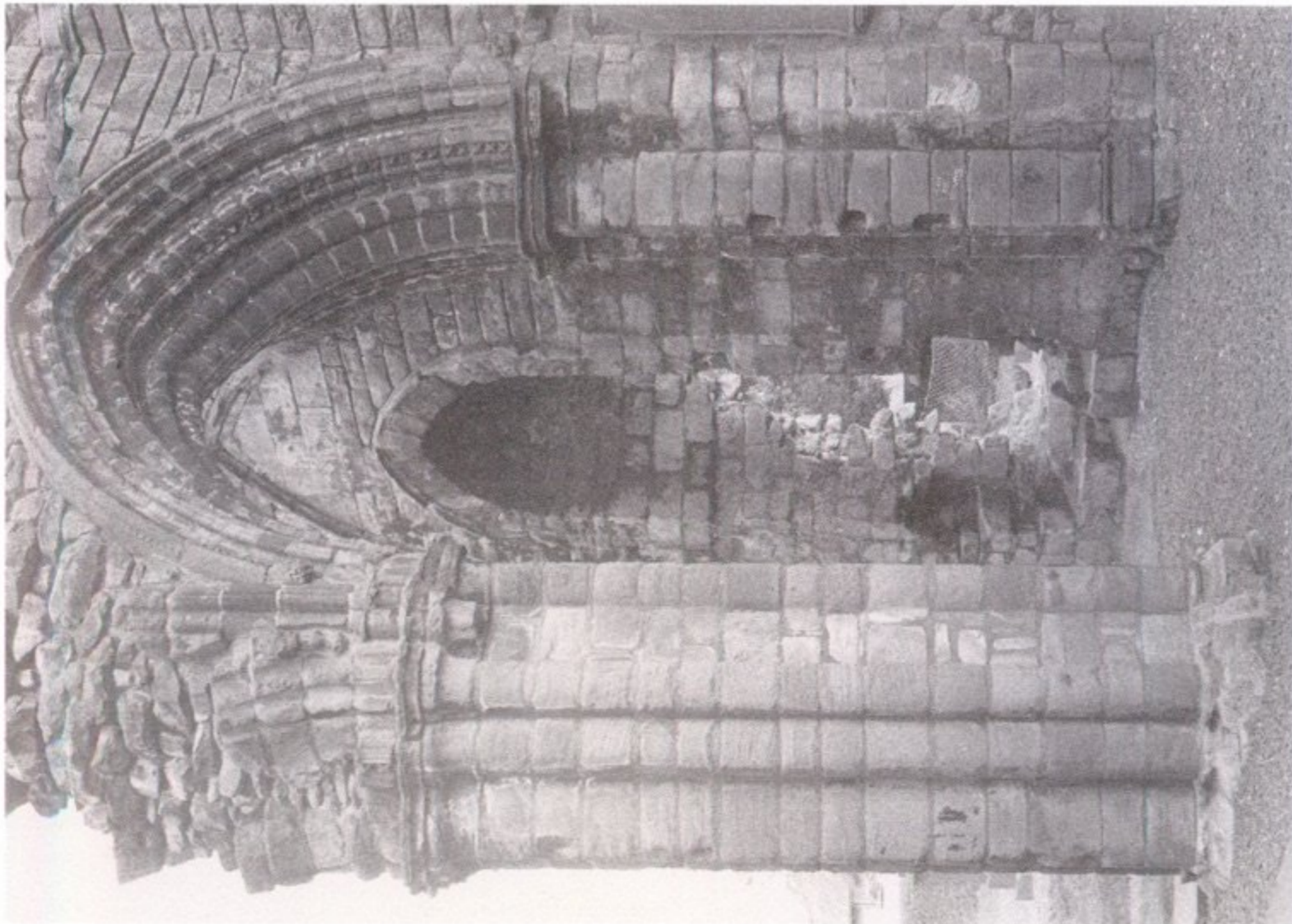




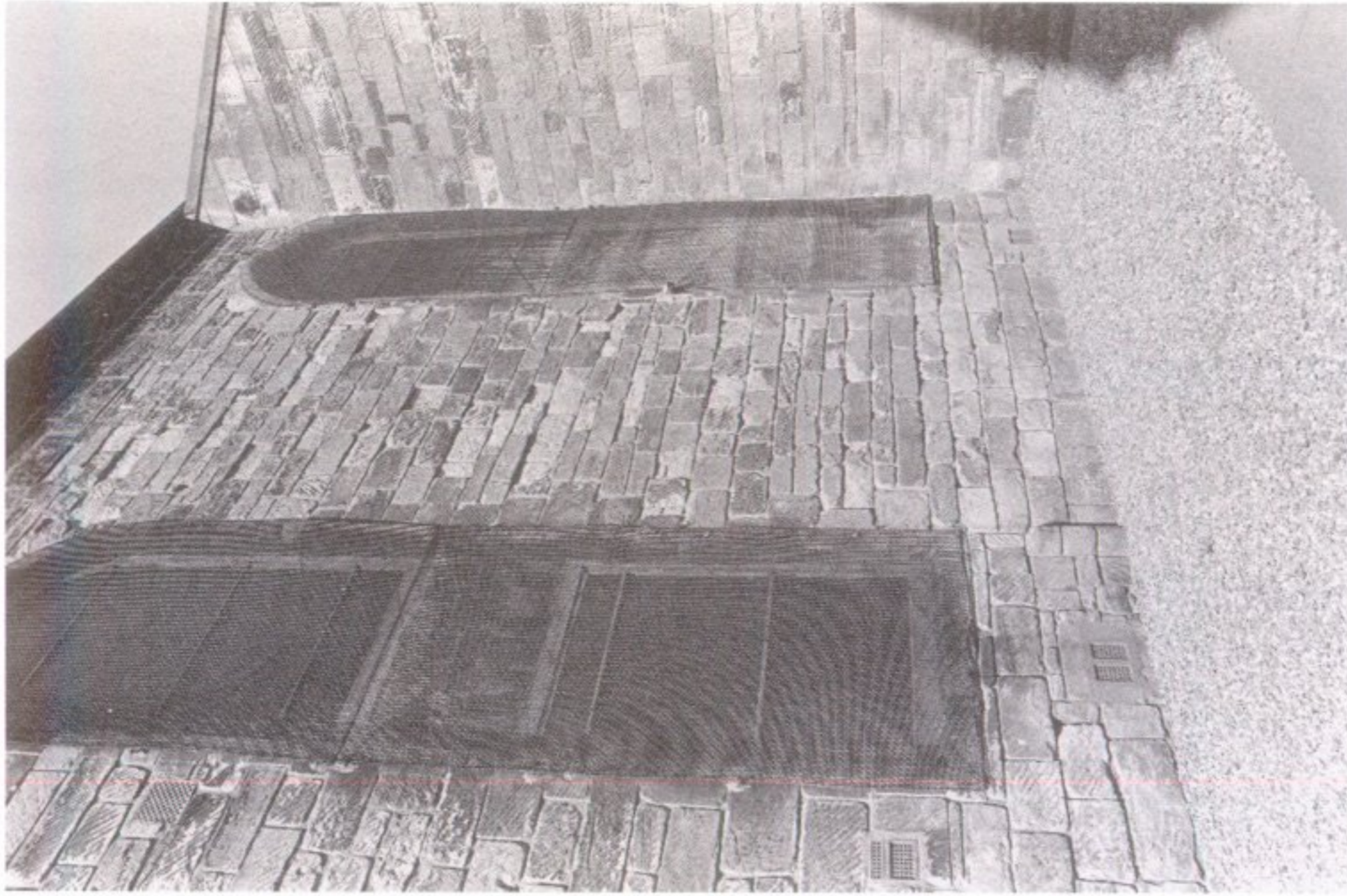
ILLUS 33 Remains of east elevation of south arm of transept



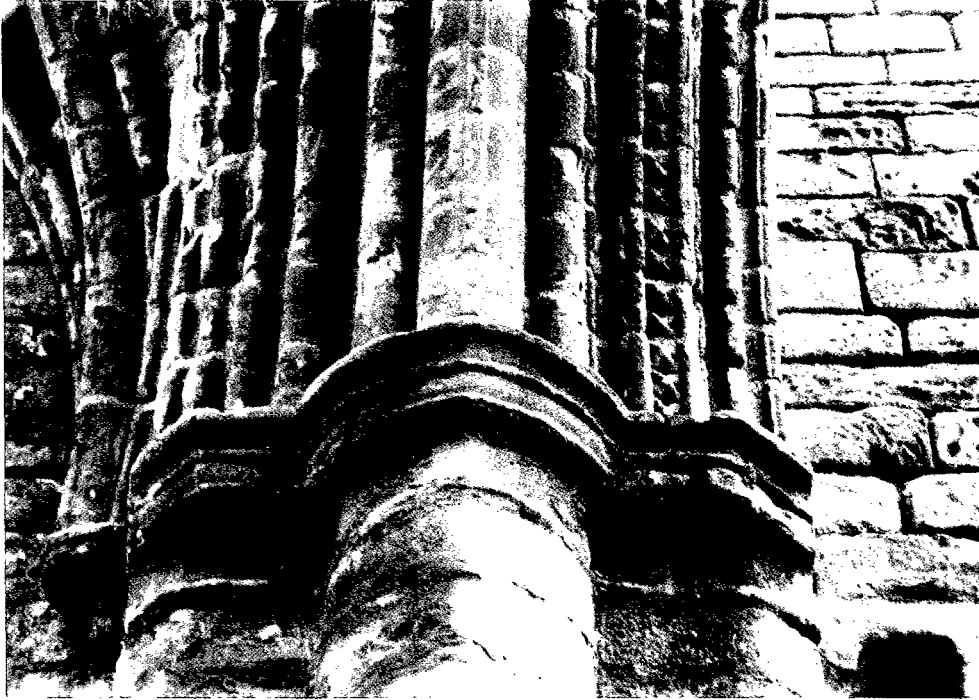
ILLUS 32 South gable wall of transept from south-east



ILLUS 34 South arch of east aisle of south arm of transept



ILLUS 35 Possible remains of pier shaft incorporated into south wall of parish church

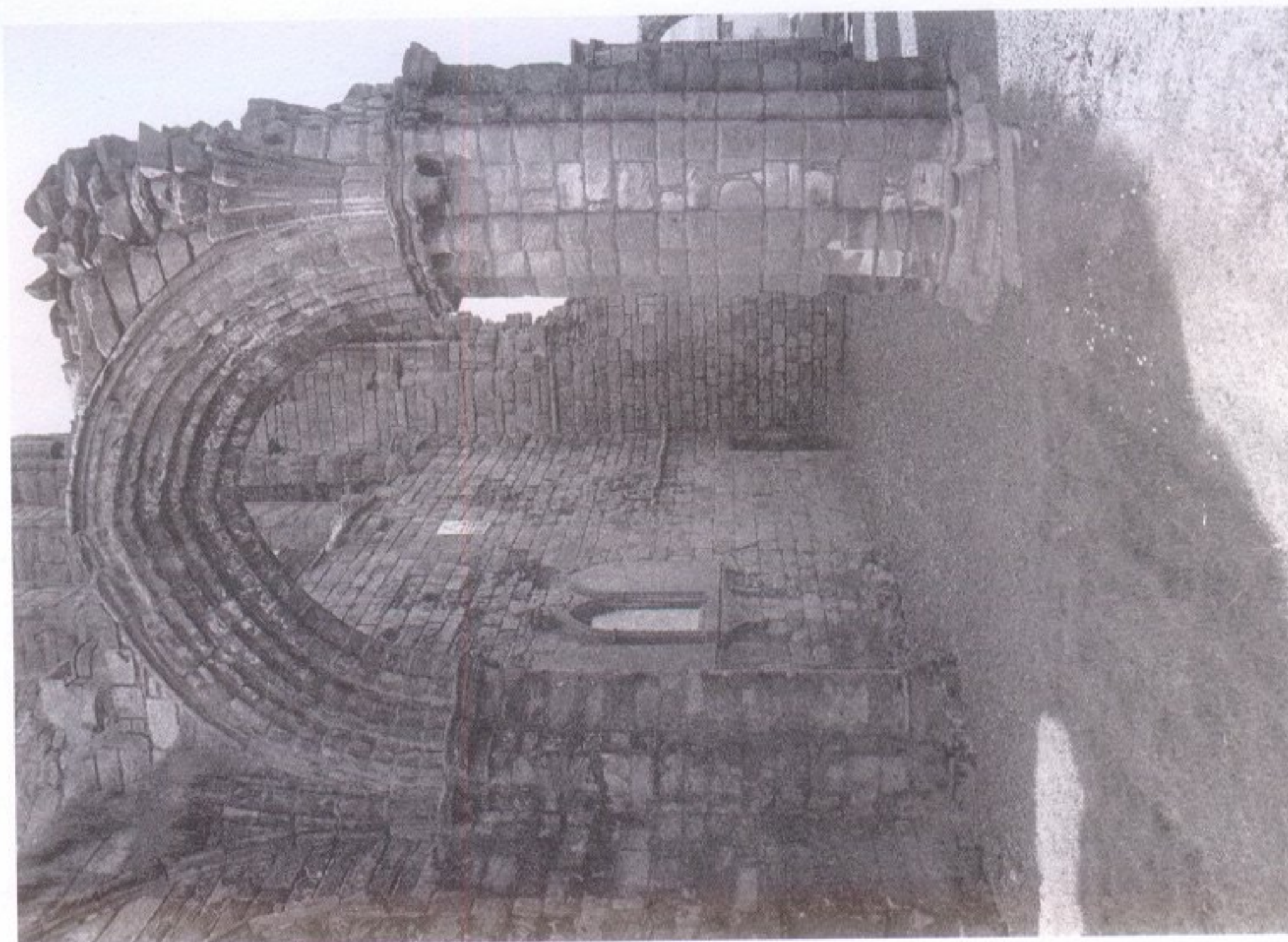


ILLUS 36 Detail of south respond of east aisle of south arm of transept

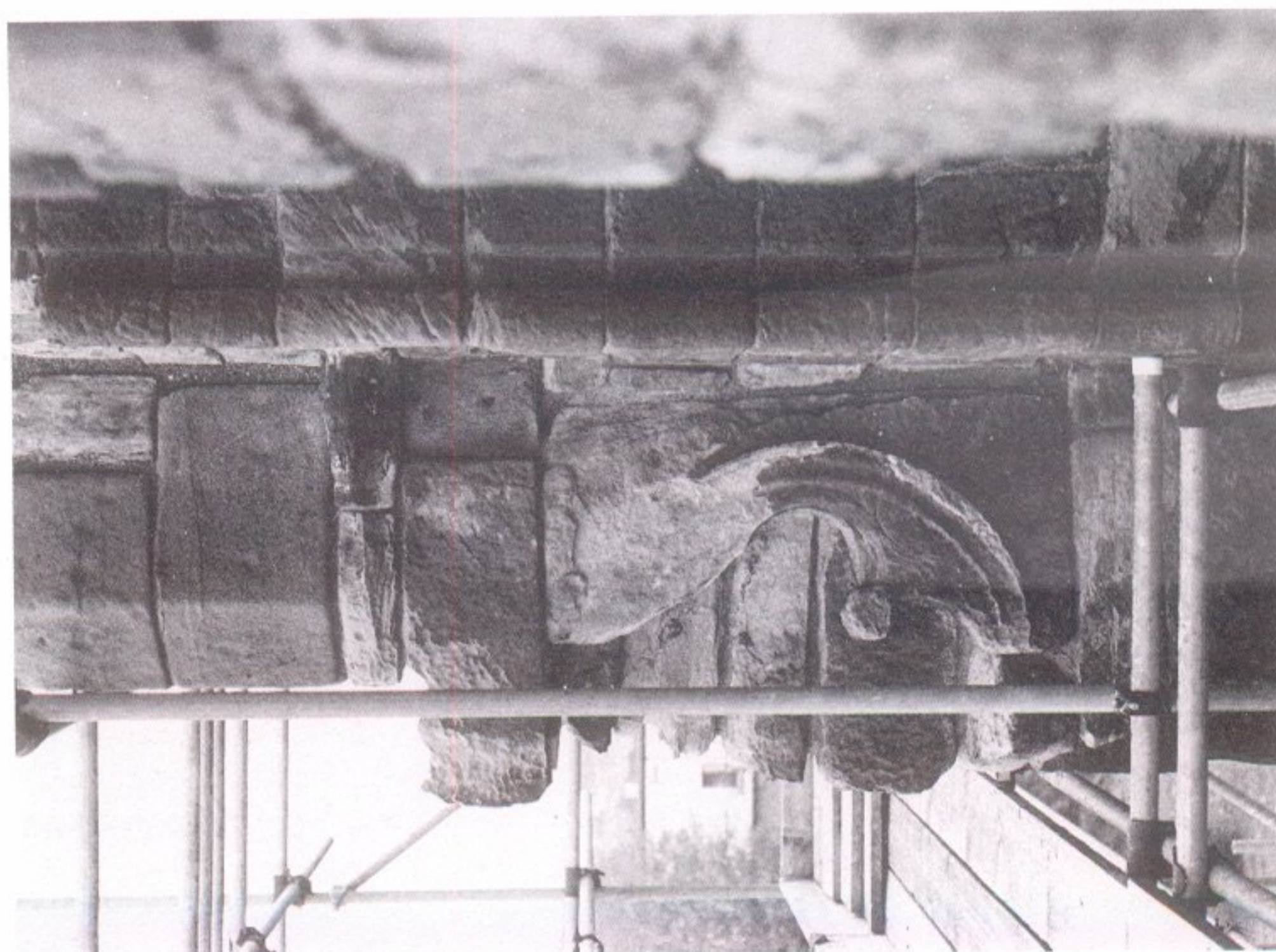
jambes being simply chamfered; a thin continuous label linked them. The level of their outer sills stepped up to the west, apparently in order to avoid the pitch of the roof over the adjacent east range of the cloister, yet the raggle of a steeply pitched roof crosses the sill of the middle lancet to reach an apex between the central and west lancets (illus 32).<sup>95</sup> The eave of the roof would have formed a broad overhang above the east end of the (newly created?) slype. (There are no signs of beam ends.) And there must have been some kind of a sloping setback where the new east wall of the slype was reduced in thickness at the end of the upper chamber.<sup>96</sup> Above the lancets was the oculus, slightly vesica-shaped (in contrast to the interior circle), with a heavily moulded frame, and above it a single plain lancet. (The vesica is off-axis towards the east, both with respect to the middle lancet below it and the single lancet above.)

The stair turret at the south-west corner of the transept has been much damaged and repaired, the repairs obscuring some of the original connections to the dormitory range. It could have been at the time of the rebuilding of the east end that the passage between the putative former sacristy (or library/vestry) and the transept was blocked up, possibly in order to construct the existing newel stair. The lowest surviving steps rest on solid masonry – which may be evidence of their insertion into earlier walls. A large roughly patched area on the south most probably has replaced the original and/or later entrance to the upper barrel-vaulted chamber.

From about the level of the barrel vault over the upper chamber, the inside of the turret (now stair-less) is certainly of one build and had five exits (illus 39): the first, angled to the south-east, is now blocked (and invisible on the exterior due to later patching and refacing); the second faces north, the third east, the fourth north, and the fifth once again east. The lowest (blocked) exit to the south-east presumably gave access to the level over the upper barrel-vaulted chamber and probably allowed the vice to serve as a night stair from the dormitory level over the chapter-house and undercroft. The four upper exits establish that there were two



ILLUS 38 South arch of east aisle of south arm of transept seen from east



ILLUS 37 Remains of spandrel quatrefoil of gallery level

levels of superimposed passageways across both the south and west walls of the transept. In the south wall, they were at the sill of the lancets, probably ascending to the roof space over the aisle vaults, and at clerestory level, where no doubt they connected with the east vice; at the latter level, the passageway separated the inner oculus from the outer vesica. In the west wall, the levels would be the equivalents to the gallery and the clerestory.

### *Affiliations*

The enlarged plan, which may not have been very different typologically from the old, was a kind of reduced version of that of St Andrews (begun 1160) or Arbroath (founded 1178), both of which had projecting presbyteries and aisled choirs. At St Andrews, solid walls separated the chapels at the end of the aisles from the presbytery, and again those of the transept arms from the west bay of the choir aisles. At Arbroath, which had a shorter choir (two bays, to four at St Andrews) there were no solid walls. The evidence is not clear at Kilwinning, but solid walls between chancel and chapels should be considered a possibility. This would mean a plan similar to that at Dundrennan Abbey (Kirkcudbrightshire; fd. 1142; existing building begun c 1160/remodelling c 1180), which, however, had three transept chapels,<sup>97</sup> or almost exactly like Glenluce Abbey (Wigtown; fd. 1192), closer in date.<sup>98</sup> The same plan was used again, almost a century later, at the last of the Cistercian houses in Scotland, that of Sweetheart Abbey (Kirkcudbrightshire), founded in 1273.<sup>99</sup>

The new work in the south aisle is stylistically distinct from the cloister portal with regard to every detail of the latter, and since it formed a complete elevation there are features for which there were no earlier parallels.

Twelve-shaft piers are found in Scotland before 1200 at Dundrennan, in its south transept and nave arcades (the westernmost pier of the south arcade), where they were all coursed, and the major (axial) shafts keeled.<sup>100</sup> Twelve-shaft piers of a somewhat different design were found in the early 13th-century nave at Holyrood. Placed on a lozenge-shaped base, rather than a round one as at Dundrennan, their core was stepped and the shafts were neither keeled nor filleted.<sup>101</sup> Twelve-shaft piers relating to Holyrood appeared sometime after 1230 at Valliscaulian Pluscarden (Moray) in the south arm of its transept.<sup>102</sup> The canonical type occurs again, much later, in the nave at Sweetheart, where the major axial shafts bear a wide fillet; although exceeded by the 16-shaft piers at Exeter Cathedral (Devon), c 1280–1340, they must be one of the latest examples of the type.<sup>103</sup> The Sweetheart piers all lack the peculiar feature of those of Kilwinning: the use of a pair of detached (*en délit*) shafts.<sup>104</sup> Outside Scotland, coursed 12-shaft piers had appeared earlier in the nave at Augustinian Bridlington Priory (Yorkshire),<sup>105</sup> in the chevet and the north transept at Cistercian Byland (Yorkshire; 1170s),<sup>106</sup> and in the south transept and five eastern bays of the nave at Benedictine Bardney Abbey (Lincolnshire).<sup>107</sup> In the south, 12-shaft cluster piers appeared in the choir of St Albans Abbey (Hertfordshire).<sup>108</sup>

Responds that do not correspond in their design to the piers forming an east arcade in a transept arm are found at Dryburgh, where the north and south transept responds differ from each other as well as from the pier, most obviously by the use of triplets of thin shafts facing a large half-shaft on the pier. At Glenluce (after 1191/2), the south transept respond, in the form of a double-layered buttress with an axial half-shaft, addresses an eight-shaft cluster pier. Also, the respond at the end of the south transept aisle at Arbroath (after 1200?) is in the form of half of a large polygonal pier with four thin shafts set against alternate facets; the chapel pier was composed of eight keeled shafts.<sup>109</sup>

The triple wall shafts rising from the pier abacus relates Kilwinning to some of these same buildings, Bridlington, Bardney,<sup>110</sup> and Byland,<sup>111</sup> as well as perhaps more significantly to the nave elevation of Holyrood (1220s and 1230s?) and the choir of Glasgow (early 1240s onwards).<sup>112</sup> In

the last two, three slim wall shafts rise from the impost of the piers, relating visually to the axial shaft of the pier below.<sup>113</sup> The arrangement at Kilwinning seems closest to these two where even their axial shafts have a narrow fillet, as also at Kilwinning.

As a motif, encircled quatrefoils appeared in Scotland as early as the time of the construction of the upper stages of the west crossing tower at Kelso,<sup>114</sup> and as late as that of the west portal at Elgin, c 1250.<sup>115</sup> Large encircled sunk blind quatrefoils appear at Dryburgh, c 1225, at the juncture between the presbytery and choir: there is a rolled frame, but the ends of the lobes curl back rather than terminating in ball-like knobs.

Foiled shapes are, however, found most frequently decorating tympana rather than spandrels. They appear variously unencircled or framed by a moulding, circular or vesica-shaped; as completely piercing the wall plane, especially in the case of tympana, or sunk into the wall (as at Kilwinning), or as relief forms on the wall plane, as is appropriate for wall surfaces between arches. To the south, pierced tympana with varying designs are found in the choir and transept at Ripon Minster (Yorkshire), in the 1170s and 1180s; in the choir of Hexham Abbey (Northumberland), c 1180–1200?; throughout all of Lincoln Cathedral, c 1192–c 1240; in the spandrels of the subarcade of the choir triforium of Beverley Minster (Yorkshire); and in the north transept of York Minster, c 1230–50. In other locations they are found in the Lady Chapel of Hereford Cathedral, c 1220, and on the west front of Binham Abbey (Norfolk), c 1240.

Small unencircled quatrefoils pierce the tympana of the second stage arches in the Ripon choir and transept.<sup>116</sup> The gallery level arches in the choir of Hexham display a variety of pierced forms in the tympana of the south side; in the north elevation, the tympana piercings are all in the form of quatrefoils, although subject to some variation.<sup>117</sup> The tympana of the north transept arm are also pierced (four different shapes are used: trefoil, quatrefoil, encircled cinquefoil, and vesica); the tympana of the south arm are not pierced. Pierced tympana become a major theme at Lincoln,<sup>118</sup> carried through from one phase of building to the next, generally in the form of trefoils and quatrefoils, beginning with the minor east transept and choir (after 1192–1210). Their use was continued in the major east transept, c 1210–20, which probably influenced the use of encircled quatrellobes and cinquelobes in the gallery tympana of the great transept of York, c 1220–50.<sup>119</sup> At Beverley, the quatrefoil was favoured, sunk into the spanadrels. In the Hereford Lady Chapel, encircled quatrefoils, circular and vesica-shaped, help fill the wall between the window arches and the vault. The nave of Lincoln, finished by 1240 at the latest, remained faithful to the unencircled form, but with a more liberal use of punched forms. The motif is used in groups of three (generally quatrefoils) in the tympana above the pairs of openings to the false-gallery. Deeply sunk pointed trefoils and both round and vesica-shaped encircled cinquefoils (the cusps not plate-like, but of tracery) fill the tympana and the spandrels of the arcading flanking the west portal of Binham in a vigorous display. In the presbytery of Ely Cathedral, c 1240, unencircled quatrefoils are punched into both the tympana and spandrels of the gallery arcade, and, two decades later, unencircled trefoils appear in relief on the spandrels of the main arcade of Lincoln's Angel Choir.

Of particular interest is the appearance of similar forms, additionally, in the spandrels between the major gallery arches of the Lincoln nave. Lincoln, however, may have been anticipated by the use of similar forms in the choirs of the great Yorkshire abbeys of Rievaulx and Whitby. At the former, c 1215–25, encircled quatrefoils are both sunk into the spandrels between the paired openings of the gallery, and pierce the tympana of the subarches, in each bay of the choir and transept;<sup>120</sup> at Whitby, in the 1220s,<sup>121</sup> trefoils and quatrefoils pierced the subordinate spandrels of the subarches (as at Rievaulx) and in a few cases – at least – also decorated the major spandrels, either in relief, or in 'sunk' form (as at Kilwinning). Yet their appearance at Rievaulx may have much earlier precedents in Scotland, for the dado arcading of the surviving north and

east walls of the aisleless choir of Coldingham Priory (Berwickshire), possibly dating from the 1190s,<sup>122</sup> has a quatrefoil, trefoil, or vesica in each spandrel. A little later in Scotland, small trefoils and quatrefoils pierce the tympana of the south gallery of Holyrood's nave.<sup>123</sup> The tympana of the false-gallery of Glasgow's choir are likewise pierced by encircled quatrefoils with a plate-tracery-like effect, again similar to that at Kilwinning, but are perhaps later in date.

The general character of the two bays of the transept elevation would have been similar to the gallery level of the Holyrood nave (but without the further subdivisions), and the choir clerestory of Glasgow, including the latter's wooden roof. That means the elevation would have been of the same type as the choir of Hexham, except with vertical articulation.

The presbytery of Arbroath had an imposing base plinth of a roll over three chamfered setbacks. The east end of Dryburgh likewise featured a prominent base course (as it remains on the north side of the chancel and north transept) composed of a roll above several sloping set backs arranged in two pairs.

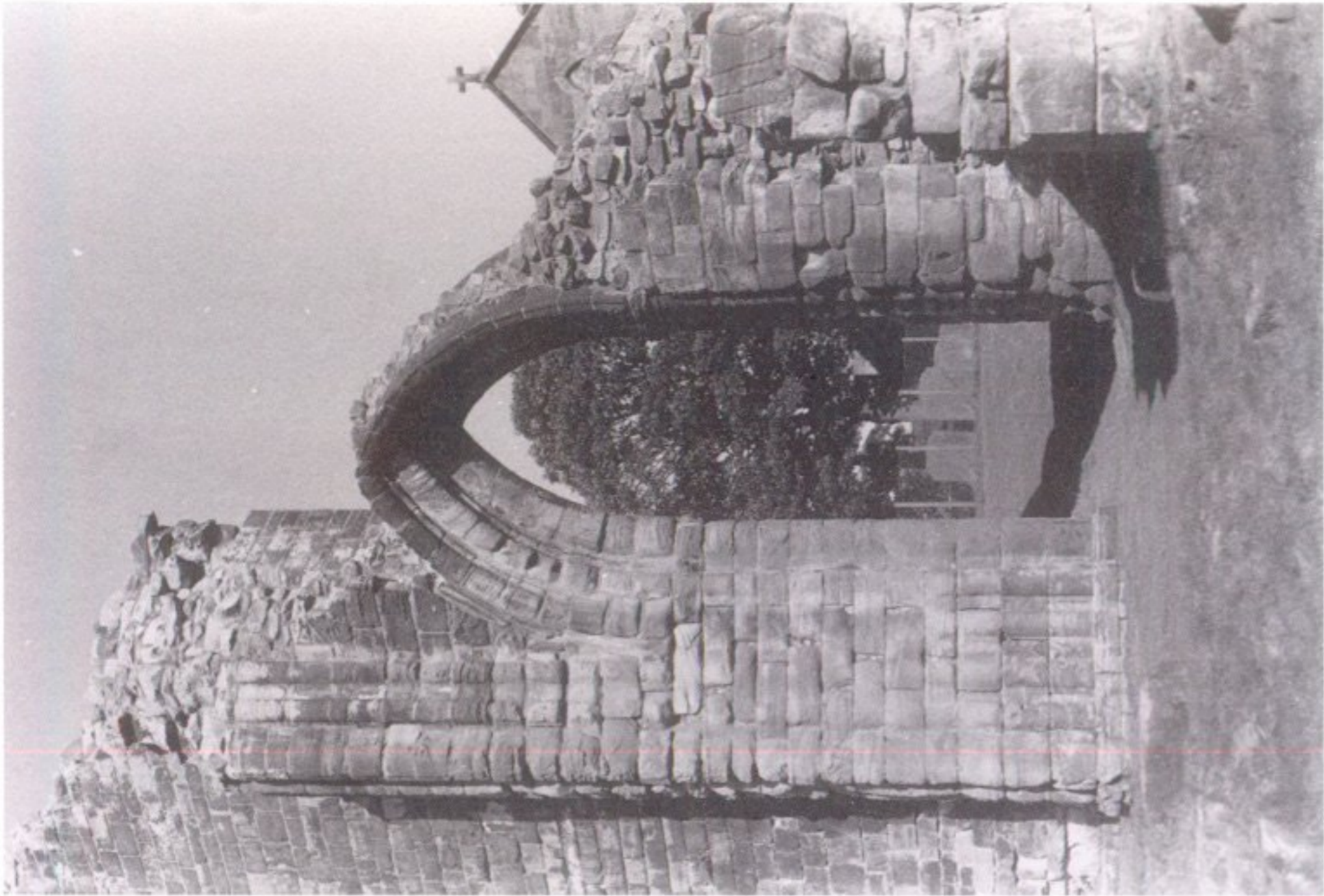
The design of Kilwinning's transept façade, dominated by tall lancets, recalls Arbroath's south transept (c 1190–1214/15), where there are two lancets with an oculus in the gable (over three interior registers of arcading),<sup>124</sup> and Rievaulx, c 1215–25, where there are three lancets.<sup>125</sup> Lancets also dominate at Cistercian Croxden (Staffordshire), c 1220–5 to c 1253/4,<sup>126</sup> in the south transept (and west façade).<sup>127</sup>

### *Conclusions*

The likely plan of the new east end of Kilwinning – aisleless chancel, crossing, and transept with an eastern aisle serving as chapels – was of a generic type which provides no particular evidence for the date of the undertaking. Many of the motifs characterizing the south arm of the transept at Kilwinning had a long currency. For instance, 12-shaft piers occur as early as Dundrennan (north transept, c 1185) and as late as Sweetheart (after 1273). Even so the pier form is unique and does not fit into any developmental tendency, and the respond of the aisle arch is without an exact parallel for its particular form. Triple wall shafts similarly begin in the late 12th century and continue at least to the mid-13th. Decorative foils of various shapes also had a long history but they seem to have been more usually associated with tympana than spandrels until the 1220s. Decorated spandrels make an early appearance in the choir of Rievaulx, then in the naves of Holyrood and Lincoln, suggesting a currency of c 1220–40. The resemblance of the encircled quatrefoil at Kilwinning to those used in the tympana of the nave of Holyrood and in the choir at Glasgow, as well as the appearance at both of individual pier types – involving 12-shafts in one case – combined with the unusual use in Scotland of three shafts for vertical articulation, all pull Kilwinning into the orbit of those two buildings – or perhaps, more precisely, between these two buildings. That is, the work of enlarging Kilwinning would fall between the construction of the nave of Holyrood and that of the choir of Glasgow. Considering the work as a whole, a date of c 1230 for the beginning of construction would be more comfortable. Other aspects such as the gable design – following on after Arbroath and Rievaulx – would also fit neatly into the period after 1230.

The probable existence of the new cloister portal by around 1200 automatically pushes the rebuilding of the east end – at the earliest – into the early years of the next century. But if there was a gap of two or three decades between the portal and the full-scale rebuilding, the suggestion that the cloister portal was a prelude to a scheme for rebuilding loses strength, unless ambition had been frustrated by a lack of means for that period.

It is tempting to associate this campaign of rebuilding with the continued beneficence of the de



ILLUS 40 Pier and arch at end of south nave aisle from west



ILLUS 39 View of newel stair in south-west angle of transept



Moreville family: either of Richard's daughter Ela (Eva) de Moreville, wife of Roland of Galloway, Constable of Scotland, or of their son Alan (d. 1234).<sup>128</sup> According to Timothy Pont, it was another(?) daughter of Richard (and his wife, Avicia de Lancaster), Dorothea, wife of Philippus de Horssey, who 'accomplished the fabrick of the said Monastery'.<sup>129</sup>

### PHASE THREE: THE NAVE

#### *Description and interpretation*

The only evidence for the rebuilding of the nave is a series of corbels inserted into the south wall of the (hypothetically aisleless) original nave, and the arch and pier opening into the west transept (illus 5 & 40). They provide evidence of an aisle, a bay system, and a vault. Four corbels remain *in situ*, two others are gone, so there was a nave of seven bays. The shape of the nave piers is unknown.<sup>130</sup> At the east end of the south wall, there is a semicircular plinth which must have been for the respond of the arch opening from transept to aisle. The west respond to the arcade is preserved as part of the south-west tower pier, along with the west jamb of the second-storey arches in front of the lean-to roof over the aisle vaults.

The angle of the wall between aisle and transept arm is a broad chamfer 0.2 m wide: it appears original to the first church. If the suggestion that the first church was aisleless is correct, then it follows that the respond indicated by the semicircular plinth was inserted into the wall (illus 28). Although there is now no indication of the shape of the respond which rose from the plinth, from an extension on its west side it is clear that it was accompanied by a single shaft or re-entrant angle (from which the vault rib may possibly have sprung).

The corbels are somewhat unusual in shape, although they resemble a moulded bell capital to some extent. Their exact profile is difficult to determine due to erosion; none the less it is clear that there was a series of roll mouldings at the top, middle and bottom of the bell.

The respond to the nave arcade on the east side of the (south-west) tower pier is distinguished by the appearance of chamfered orders in place of some shafts: there are two broad chamfered orders towards the nave and one towards the aisle, flanking a large, broadly 0.10 m filleted axial shaft. The west respond of the former (false) gallery arcade also displays an axial shaft with a broad fillet, but is flanked asymmetrically by major and minor shafts (a pair [a,b] to the gallery, with at least four towards the nave in an aab?b rhythm).

The arch opening from the new south aisle into the west transept is complete (illus 40). The design is characterized by a new base type, one in which the scotia is essentially eliminated: two rolls are placed on a low plinth with a small right angle between them (illus 41). The capitals, much weathered, do share the rather 'compressed' nature of those in the east transept; however, their profile is quite different (illus 42). It consists of a necking ring and a split roll separated by a narrow bell. The abacus was also formed by a split roll, with a small astragal on the vertical face below it.<sup>131</sup> The use of wide fillets (57 mm) on the axial shafts is also another characteristic feature: keeling does not appear. The broad fillets continue down onto the base mouldings.

The five orders of the arch are each large in scale and distinct, and are co-ordinated in size with the shafts of the responds (illus 40 & 42). They are not identical in shape: the largest half-shaft – the axial one – is filleted, while the soffit order is polygonal; the pair of outer shafts and their corresponding orders are round; very thin rolls are found between the main orders. Immediately above the arch from the aisle is the flat (north) jamb of an arch that formerly opened from the roof space over the aisle vaults into the west transept.

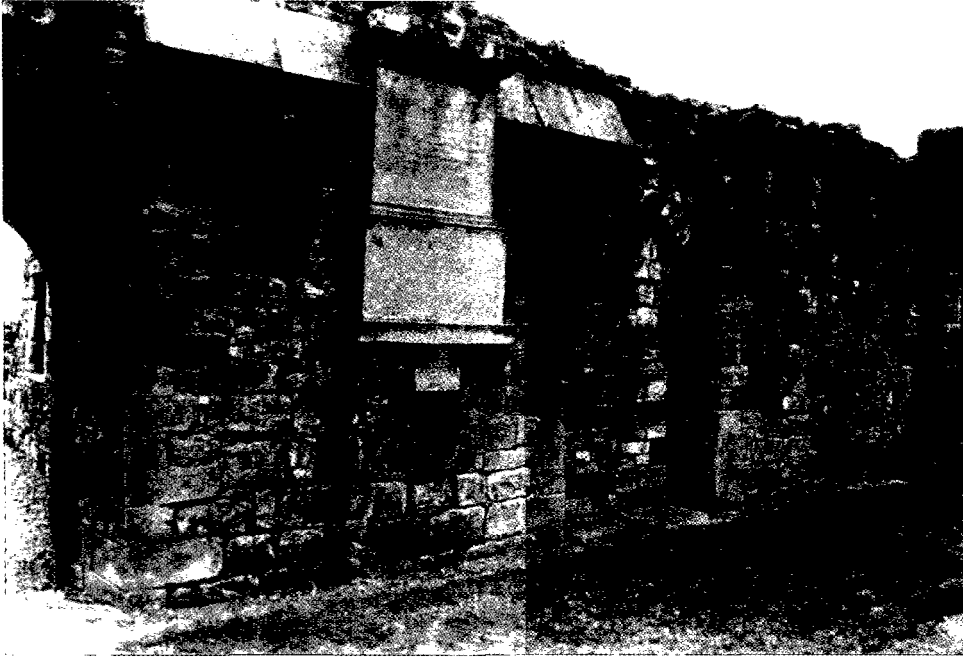
The conversion of the aisleless nave into an aisled one may have been accompanied by its lengthening. A vertical seam, 1.6 m west of the west processional cloister portal, affecting the five courses visible below a memorial wall plaque, suggests that the south wall was extended two bays (illus 43). The extension is well built, with regular large ashlar on the exterior face (illus 44). In contrast to it, the coursing and ashlar are much less regular and more rough-faced on the interior. As the wall does not bond with the respond of the arch at the end of the aisle, it could be argued that this section is part of the early wall of the first church. Accordingly, the façade wall of the first church would have been either just west of the east wall of the west range or well west of it. If the wall is an extension, the rough character of its inner surface could possibly be



ILLUS 41 Base of pier at end of south nave aisle



ILLUS 42 Detail of pier and arch at end of south nave aisle



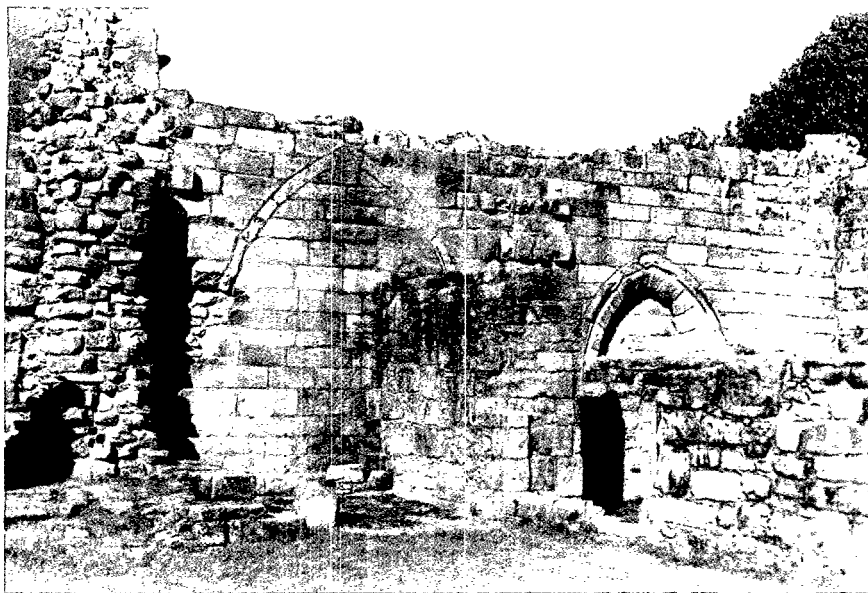
ILLUS 43 Interior face of two west bays of south wall of church, looking west

explained as the result of the intention to plaster it in keeping with the remainder of the wall to the east. On the exterior, it may at first appear that the seam between the old south nave wall and the new aisle wall is covered by a wall belonging to the post-Reformation remodelling of the west range (illus 45). However, it could be argued that the new masonry abuts the west face of this wall which, it has been suggested above, not only stands on the site of the east wall of the original west range but preserves some early masonry in bond with the church's south wall.

Work included a new portal to the cloister placed in the eastern of the two 'new' bays. The jambs and pointed arch of the new portal, now blocked, are simply broadly chamfered towards the cloister, and are provided with a moulded label. The jambs are splayed towards the interior, and the rear-arch is a segmental curve; there are no mouldings.

At the same time, a new vaulted wing paralleling the western range to the cloister was built – or at least started. It is not clear if it was intended to replace or supplement the original range.<sup>132</sup> No trace of the latter's west wall is preserved, and, as described above, the new work extends along the south wall of the church as far as the west face of the east wall of the early range. As mentioned, a new portal was inserted in the east bay which suggests that the intention was to tear down the west range and to block up the initial west processional doorway. Yet, as the stump of the original east wall still remains, this scheme may never have been fully carried out. In addition, the voussoirs of a wall arch remain in the westernmost of the two new bays. At its east end, two courses of the springing of a vault are preserved (illus 46).

There is also a series of ashlar blocks bonded into the church's south wall between the vault and the new cloister portal for a (intended) north/south wall (illus 46). The thickness of this wall suggests it may have been meant to support an upper level; at ground level, it may have been a solid wall pierced by openings, rather than an open arcade: in any case, there is no evidence it was actually built. This wall was to be paralleled by one to the west, of which the only visible evidence is an extension (spur wall) in the 'middle' of the west transept's south wall (5.18 m west of the south-east angle of the transept), with the base of an angle-



ILLUS 44 Exterior face of two west bays of south wall of church

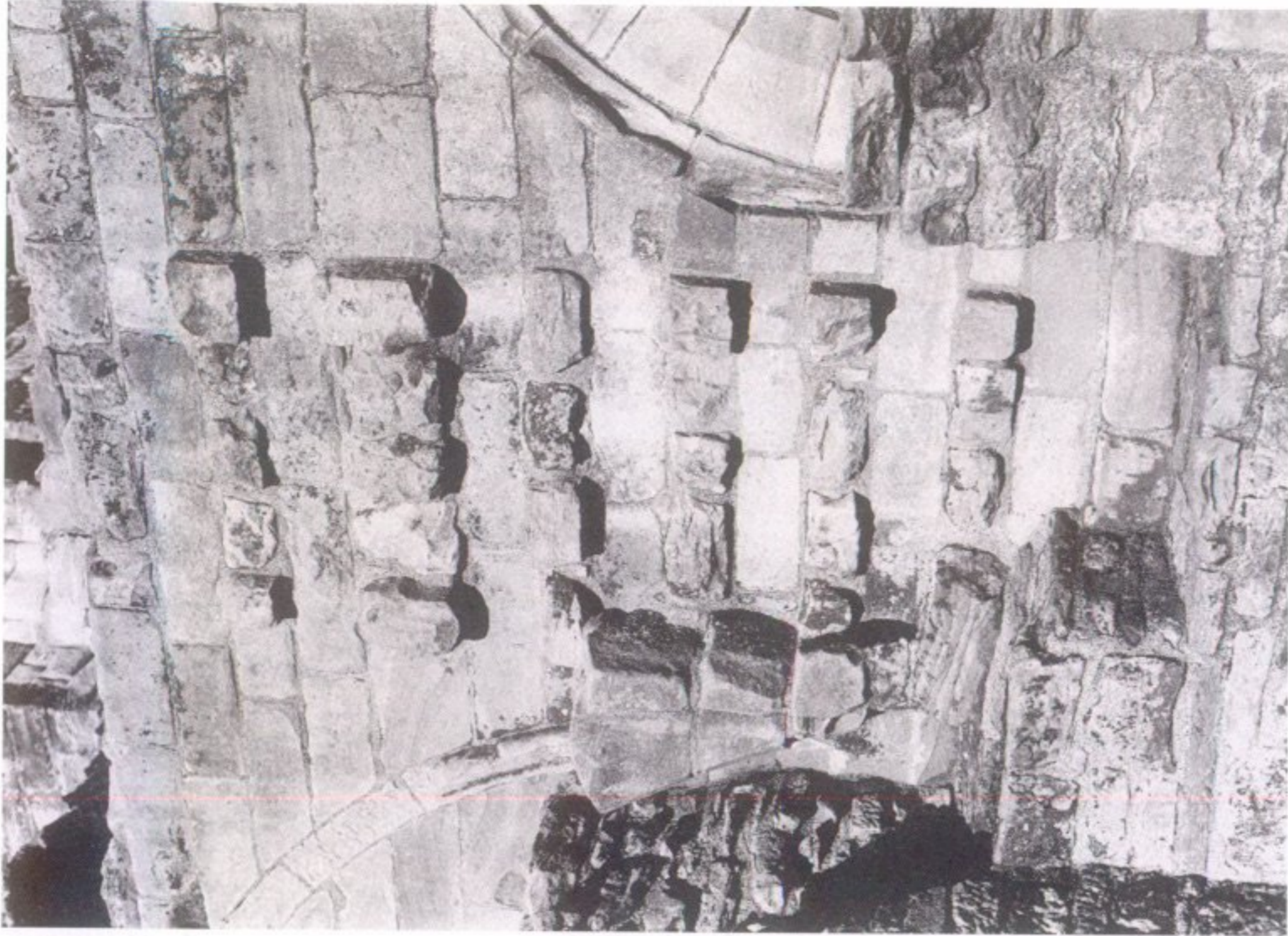
shaft (illus 47). Thus, the south-east exterior corner of the transept was overlapped by the end of this new west claustral range which, possibly, was to have had a vaulted undercroft in two aisles.

A bench-like plinth, originally composed of two courses – the upper about twice as high as the lower (0.23 m) – each chamfered and now not all complete, wrapped around the exterior south-east angle of the transept (illus 48). It was 0.35 m. wide on the east face. On the south face, there was a shallow projection (75 mm) which apparently formed a respond for the inner division of the contemporary west range. The plinth increases in height as the ground level drops slightly to the west along the south face. There is no trace of the chamfer around the south-east corner where the high plinth-bench is found.

### *Affiliations*

Once again there is a new style: none of the details of the west arch and pier is found in the east transept, and vice versa. The peculiar form of the corbels for the aisle vaults may find a parallel in two in the crypt of Glasgow, which are themselves ‘unique’ forms there. They are found on the south face of the south octagonal pier and the north face of the north octagonal pier: the bell of the corbel below its moulded abacus is crossed by three widely spaced rolls.<sup>133</sup>

Many, although not all, of the choir and nave arcade pier bases at Arbroath are characterized by the elimination of the scotia; instead, two small rolls are placed over a larger one. In at least one case (not all the pier bases survive) – the easternmost south arcade pier – there were only two rolls. The fillet does not seem to have been used. At Rievaulx, some of the piers in the vicinity of the north transept chapels have two rolls separated by a right angle and, as at Kilwinning, the broad fillets of the major shafts (of the 16-shaft-bundle piers) is expressed, although only in the upper torus and angle. Double roll bases also are found in the undercroft, and on one pier base (and on a ‘demonstration pier’ from the claustral buildings on display in the Commendator’s House), at Melrose Abbey (Roxburgh).<sup>134</sup> Double-roll bases are found on the crossing piers at Dornoch



ILLUS 46 Springers for vault, bonded stones for north-south wall, and springing of arch of 'new' west processional portal to cloister



ILLUS 45 Junction of exterior face of two west bays of south wall of church with west face of east wall of west cloister range



ILLUS 47 Remains of intended new west wall of west range with base for jamb shaft of portal



ILLUS 48 South-east angle of west transept

Cathedral (Sutherland), c 1222/3–45, where the east responds to the nave arcade (whose bases are not visible) have a wide fillet on the large axial shaft.<sup>135</sup> In addition, the much-restored bases found in the two-bay antechambers leading down to the crypt at Glasgow Cathedral include a few which eliminate the scotia to replace it by a single or double angle between the two tori.

Wide fillets occur on the north-east aisle pier at Dryburgh, and even wider fillets were apparently used in the nave piers, as can be seen from the remains of the pier at the pulpitum and the north-west respond. (The nave pier bases also eliminated the scotia in favour of a rather flat band.) It has already been noted that broad fillets occurred at Rievaulx where they were expressed in the upper mouldings of the bases. Broad fillets are also found in the crypt (see the axial pier of the east chapels, for instance) and in the choir of Glasgow Cathedral where once again base and capital profiles are quite different. It is of interest, though, that the fillets are expressed in the base mouldings and plinth.<sup>136</sup> At Paisley Abbey, the responds of the south aisle wall are composed of triplet of shafts, with fillets which are also expressed in the bases. The responds and piers for the now vanished west towers continue to use wide fillets on the large axial shafts, but the base and capital profiles are completely different from those of Kilwinning and some of the minor shafts are keeled.

The implication of the chamfered orders on the east side of the tower pier for the form of the arcades is not certain. Chamfered orders do occasionally occur in Scotland as at Kelso, Kirkwall, Dryburgh, Paisley, and Sweetheart. Only at Dryburgh and Sweetheart – two buildings widely separated in date – do they form a major motif. At Kelso, chamfered orders are found in the two remaining bays of the nave (two in the west bay, one in the east bay); all the orders were chamfered towards the aisle. The inner order of the nave arcade was chamfered at Kirkwall, as well as the orders of the gallery in nave and retrochoir. At Dryburgh, they are found in the north transept, while at much later Sweetheart only the middle order of the chapel and nave arcades was chamfered. The chamfered orders were more discretely placed at Paisley, being restricted to the side of the arches facing into the towers' bases. In the north of England, the use of chamfered orders is found at Bridlington, at the west end of the north arcade, and at Hexham, where the arcades of the south transept arm have three chamfered orders. The wide range of the date of these buildings spanning more than a century – Kelso to Sweetheart – proves only the longevity of the form, but reveals little about the date of the aisle arch at Kilwinning.

### *Conclusions*

The apparent complete discontinuity in style between the work at the east end and that at the west may be exaggerated by the loss of the nave. Yet the uniformity of the corbels in the south wall does provide some evidence or argument for the extent of the break, and does not suggest any kind of gradual bay by bay evolution in style. The break between the work of the west and that at the east seems as sharp as that between the east and the east cloister portal and, in a similar fashion, may imply both a certain lapse of time and the arrival of a new master and team of masons. Even less than in the case of the chapter-house entrance has it been possible to produce convincing parallels for the various features of the west work – the base mouldings and shaft forms, the use of fillets and chamfered orders, or the capital type – which would provide a relatively precise date and context for the new work. None the less, without being able to produce a set of narrowly dated parallels, it is possible to suggest a date in the 1240s for the reconstruction or remodelling of the nave leading to the completion of the west transept in the 1250s.

PHASE THREE: THE WEST TRANSEPT<sup>137</sup>*Description*

The rebuilt, aisled nave terminated in a transept-like space which extended under two lateral towers, of which the north one survived until the early 19th century.<sup>138</sup> As the face of the pier towards the nave is devoid of shafts, being merely a flat surface, it is unlikely that there was a crossing arch at the end of the nave. The west face of the pier bears a group of five shafts which rise up above nave gallery level. The axial shaft is the largest and has a broad fillet; the pairs of flanking shafts, widely spaced, are thinner and simply round (illus 49). Of the corresponding respond against the interior of the west wall, only a rectangular plinth, 1.098 m by 1.948 m – in contrast to the shaped plinth of the pier respond – remains, without any trace of shafts on it.

The exterior appearance of the transept can be partly reconstructed from the views made of the abbey ruins before the collapse of the north-west tower.<sup>139</sup> They show that the towers were in three stages, of diminishing height, articulated by stringcourses. There were stepped angle buttresses as well as a mid-wall buttress on the west and side faces which rose as high as the middle of the second storey. The third, uppermost, storey had a pair of narrow lancets on east and west and towards the nave, but none on the side faces. In addition, there appears to have been a small traceried window on the east façade of the second stage, at about nave clerestory level, and a larger traceried window on the west façade of the lower storey placed on the nave side of the mid-wall buttress. The towers originally may have been capped by a plain continuous parapet, with stepped gables rising north and south for a saddleback roof.

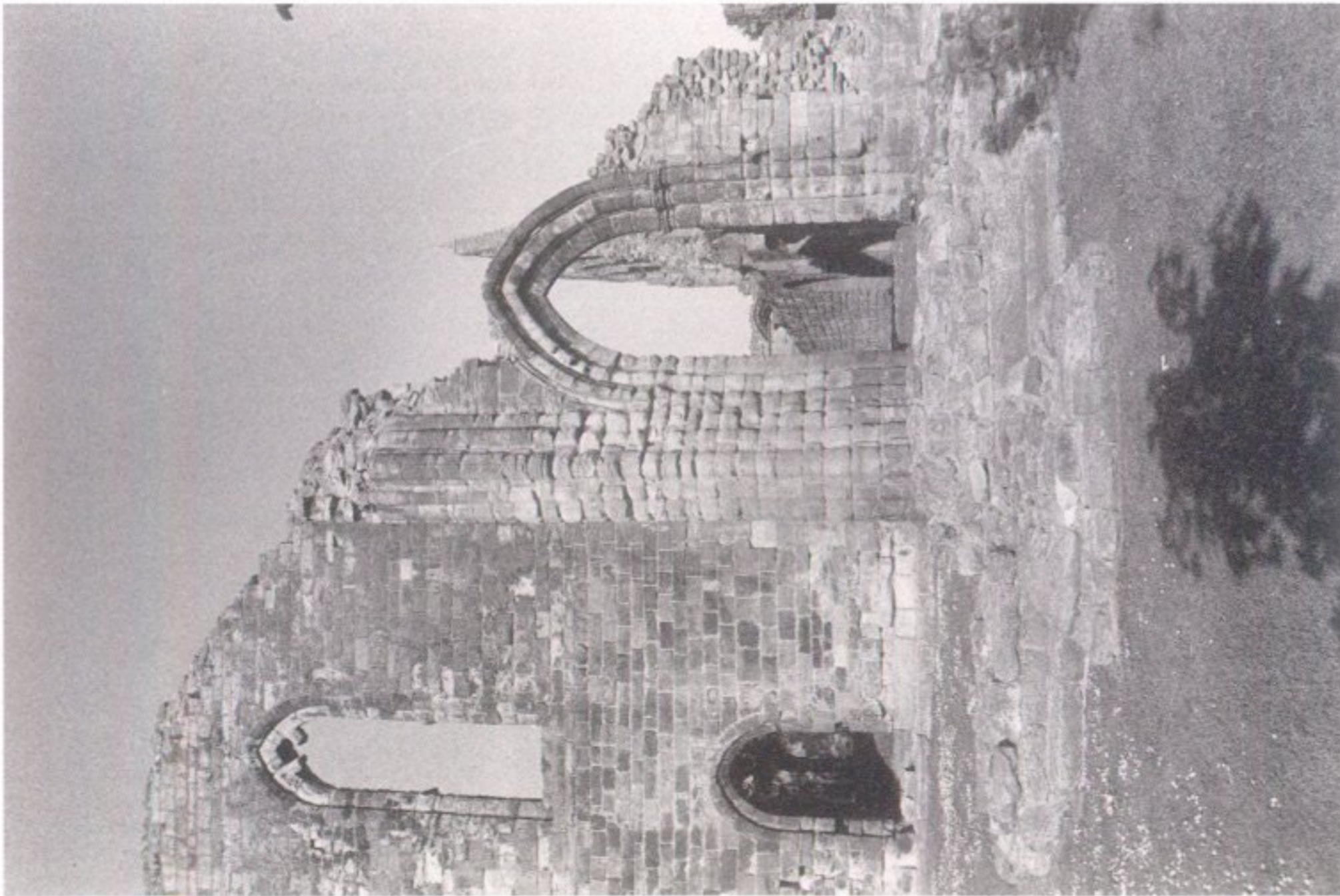
Only one view shows the towers' relationship to the nave (illus 50).<sup>140</sup> It depicts a tall wide arch, at least as high as the window on the later west wall, in the south wall of the tower. The face of the wall immediately above the arch is plain. There is the suggestion of a stringcourse below the level of the first setback of the buttresses, above which the sketcher appears to show a line of broken masonry running across the tower's south face (from the highest surviving point of the west wall) which could be interpreted as the remains of a barrel vault. It is at this point that one might have expected some evidence of the former roof structure, but none appears. Above this, there is a slender rectangular aperture in the south face, and then, above the uppermost stringcourse, two narrow lights with louvres and hood moulds.

Now all that is visible, in addition to the arch opening from the south aisle into the transept, is the lowest courses of the east, south, and west walls of the arm which would have formed the base for the south tower (illus 51).<sup>141</sup> There was a broad buttress externally, in the line of the nave arcade and the internal respond, and another at the south-west angle where a stair vice was located. The west wall has been denuded of all masonry above the base course. There are no architectural details preserved on the interior surfaces of the other two poorly preserved walls. A double-chamfered plinth can be traced intermittently from the west side of the buttress to the junction of the west wall of the west claustral range against the transept's south face.<sup>142</sup> It steps up thrice along the west face: in the middle of the west face of the buttress in the line of the nave arcade (now robbed out); twice between the buttress and the angle turret (only the southern jog is actually preserved); and once more on the south face, just before the junction with the west range. The narrow chamfer from the base plinth turns on to the wall projecting to the south (forming the west wall of the new west range), and ran behind a moulded base which probably served a shaft in the angle created by a reduction in the thickness of the wall at this point, where a portal may have been located.<sup>143</sup>

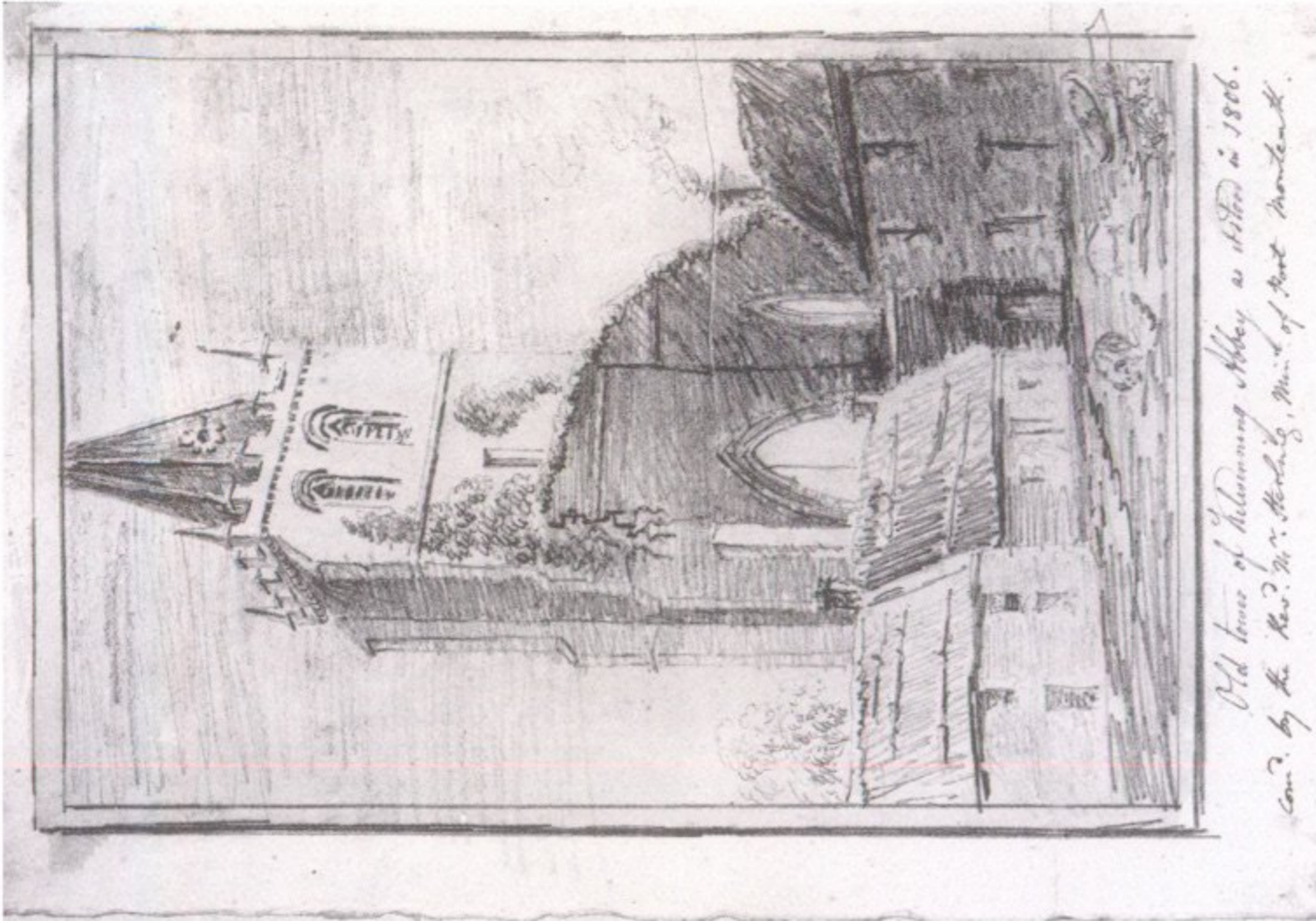
*Affiliations*

The west transept at Kilwinning is one of only five known to have been constructed in Britain and is the latest of the group. The others are found at Benedictine Bury St Edmunds Abbey (in construction between c 1120? and the 1140s), Benedictine Ely Cathedral (after 1155/60?), the Tironensian Kelso Abbey (after c 1175?), and Benedictine Peterborough Abbey (as it was prior to the Dissolution) (between 1177 and 1194).<sup>144</sup> Lacking a western arm, and surmounted by twin towers, the west transept of Kilwinning is closest to the latest one of the English examples, that at Peterborough. The differences are obvious: Kilwinning's transept is smaller in scale and lacked the giant loggia-like porch added to Peterborough's in the course of its construction.<sup>145</sup>





ILLUS 49 Inserted west wall and aisle arch to south arm of west transept



*Old tower of Kilwinning Abbey as it stood in 1806.  
 Com<sup>d</sup>. by the Rev. W. R. Mackenzie, Min<sup>st</sup> of Scot. Paroch. Ch<sup>h</sup>.*

ILLUS 50 View of north tower of west transept from south-west in 1806  
 (Trustees of the National Library of Scotland: Hutton Collection,  
 Adv. MS. 30.5.22, 28g)



ILLUS 51 View of south arm of west transept from north-west

Although a western transept is found at the major Tironensian house of Kelso, there seems to be no formal relationship between the two transept structures despite belonging to the same Order.<sup>146</sup> The earlier transept at Kelso was distinguished by having three arms of almost equal dimensions as well as a single axial lantern tower. It is interesting to note that the tower piers at the other major Tironensian house in Scotland, Arbroath, were flat surfaced towards the nave, and also that the towers were without any internal subdivisions.<sup>147</sup> In a sense, only the presence of the second-stage openings and the mock clerestory above separates the twin-towered western structure of Arbroath from the transept at Kilwinning.

### *Conclusions*

The reasons for the appearance of the west transept at Kilwinning are not at all evident, as indeed is also the case with Kelso, where it was, however, part of the original concept of the building. This is all the more puzzling as none of the Tironensian churches outside Scotland had such forms at their west ends. As there is no remaining evidence for the location of altars against the east walls in the ends of the transept arms, although the length of the wall (2.1 m) could have accommodated one, a simple liturgical explanation is not forthcoming. There is a recess with a piscina and, at each side, an aumbry located at the east end of the south wall in the west transept at Kelso.<sup>148</sup> As a corresponding arrangement in the north arm is lacking, and as the east walls of both transept arms are decorated with intersecting arcading, it seems unlikely that there were altars in the transept arms. The piscina and aumbries probably served an altar at the west end of the nave at Kelso which, like that at Kilwinning, was parochial.<sup>149</sup> Thus the reason for the west transept at Kelso, as in the case of Kilwinning, is unknown.

## PHASE FOUR: THE INSERTED WEST WALL

*Description and interpretation*

A west wall closing off the nave from the transept space, was eventually inserted between the tower piers (illus 49).<sup>150</sup> It was not aligned between their flat faces but was, instead, placed farther to the east. As it survives, it overlaps the responds at the end of the nave arcade in a way which suggests that it may have continued across the aisles as well, and therefore completely engulfed the west responds. There is a very narrow west portal and window, the former with two chamfered orders externally, the latter with one, the inner jamb being simply a plain right angle. The portal jambs were rebated and splayed (1.37 m wide at the inner rebate; 1.77 m wide at the outer edge of the splay). The heavy chamfered tracery of the window was of the simple, uncusped Y-type with a transom. There is a chamfered setback on the exterior at the level of the window sill which is matched on the interior by a right-angled setback just below the window.

It has been suggested that the west wall was inserted due to damage to the west end, especially to the south-west tower, caused by the Wars of Independence.<sup>151</sup> Equally, the wall might well have been built in the immediate post-Reformation period, possibly due to the collapse of the south tower (as a result of earlier damage?), in order to allow the nave to function as a parish church.<sup>152</sup> However, the author of the report of the excavations carried out in 1985 suggested that the wall may have been inserted due to inadequate foundations under the transept towers.<sup>153</sup>

*Affiliations*

Despite the fact that the 'new' western processional portal to the cloister employed the chamfered order, unaccompanied by any mouldings, the window and portal of the west wall could be much later in date. The use of the chamfer at a late period has a parallel in the post 15th-century window inserted in the north wall of the sacristy (c 1411–49) at Arbroath.<sup>154</sup> Chamfered jambs and Y tracery appear in the windows of the upper storey of the early tower at Dunblane Cathedral (Perthshire) which has been dated to the 16th century.<sup>155</sup>

*Conclusions*

The reasons for and the date of the collapse of the south-west façade tower remain ambiguous. Until a thorough excavation is conducted, questions about the adequacy of the foundations, the completion of the building and the date of its destruction must remain matters of speculation. Since the surviving north-west tower, as it appeared in the late 18th- and early 19th-century views, seems perfectly vertical and intact, the inadequacy of the foundations as a cause for the construction of the west wall may be doubted. A spire was constructed as late as 1789 without causing any apparent damage to the tower due to its added weight. In 1814, when the tower was demolished, as the result of damage caused by lightning in 1809, the foundations were blown out with the use of gunpowder.<sup>156</sup>

Stylistic comparisons, however, do suggest that the west wall could just as well be post-Reformation in date as later 14th or 15th century.

## GENERAL CONCLUSIONS

Although it has not been possible to date the several building phases of the abbey with any precision, their general sequence is, I believe, clear. One can summarize the sequence, and check it, by briefly examining it in reverse order. Thus the west wall, with its window and door, is clearly, whatever its date, the latest work: there is no doubt that it was inserted between the piers at

the west end of the nave. The west transept itself is the latest element of the church proper and is stylistically placed towards the mid 13th century as the last stage of a complete rebuilding of the original church. It follows on from the nave, although the conserved state of the remains do not permit us to judge with complete certainty if the nave and transept were conceived together or as separate and sequential constructions. The associated reconstruction of the west range of the monastic buildings remains problematic, both in terms of the builders' intention and the extent of its execution.

Again, the rebuilding of the east end can, on stylistic grounds, be placed around the fourth decade of the 13th century. Its exact relationship to the form of any earlier church on the site is once more problematic, but the scale of its rebuilding suggests that an earlier structure of much more modest dimensions was likely. The east processional portal, once again on the basis of style, is clearly earlier than the rebuilding of the east end and so is a separate phase, however short in duration or limited in ambition.

The traces of the hypothetical first church can be identified mainly on the basis of their later alteration. The construction of the east processional portal caused the blocking up and conversion of the portal in the west wall of the south arm of the transept into a closet. Thus the latter preceded the east processional portal in date. A reconstruction of its initial modest form and minimal decoration allows two other early remnants to be identified: the portal to the stair vice in the south-west corner of the transept, and the west processional doorway.

There are four aspects which remain particularly problematic, most notably the ensemble of the chapter-house entrance, for which there is no exact stylistic parallel; the preponderance of the evidence favours an early date, especially as there seems to be no clear supporting evidence for its rebuilding at later date. Two other problematic areas are related: they are the vestibule and vice in the south-west angle of the east transept and the adjoining slype. While their place in the general sequence seems clear, their original forms and the sequence of events that resulted in their present appearance remain enigmatic. The fourth problem is the nature and character of the western range. Its original form was theoretically very simple; exactly when it was torn down is more ambiguous: was it mostly destroyed in the enlarged scheme initiated at the time of the introduction of the west transept, a scheme which was never completed?

## APPENDIX 1

### THE AREA BETWEEN THE SOUTH GABLE AND THE CHAPTER-HOUSE

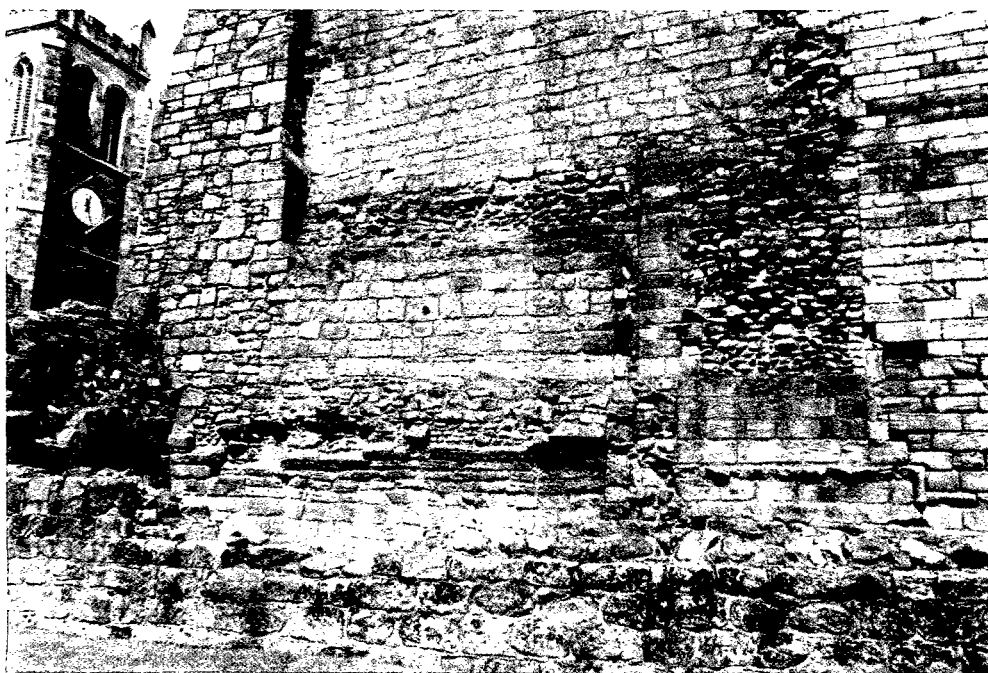
The effect of the enlargement of the transept upon the adjoining north end of the east range of the claustral buildings, and the functional connections between them, is not immediately apparent, for the constructional history of this area is the most difficult to decipher. Although the several components are evident, the exact sequence of the changes affecting their original form remains uncertain. Part of the problem of interpretation is due to the fact that most of the lower portion of the south face of the south-west angle-buttress (illus 14 & 32), from the level of the springing of the lower barrel vault (of the former possible sacristy) up to a level equal to the sill of the south-east lancet, has been patched and rebuilt (this is especially evident on the south side of the interior of the stair vice).

On the exterior, the two most prominent factors are: the lower level barrel-vaulted corridor (the sacristy/slype): with possible evidence of a blocked doorway at the west end of its north wall and, at its east end, a set of rebated and splayed jambs; and the upper level barrel-vaulted space (illus 14, 15). The north wall of the latter, of six slightly irregular courses of coarse grey stone, extends between the south-west angle buttress and a broad buttress at the east which marks the beginning of the new construction and the extension of the transept (illus 14 & 16). The vault supported by this stretch of wall was of the same length as the lower

one. At its east end, the upper barrel-vaulted space was closed by a thin wall, less than half the thickness of the one below (illus 52). That wall, containing a doorway with rebated jambs, as mentioned above, is not the original end-wall of the corridor. The south jamb is clearly inserted into the wall between the chapter house and the slype; its insertion involved a little refacing of the wall to east and west. The chapter-house wall increases in thickness 1.04 m to 1.19 m east of the inserted jamb, but that thickness appears original as it continues to the east wall of the chapter house. Furthermore, there is no bond between the north jamb and the north wall of the slype (south wall of the transept: illus 16).

It would appear that the end wall of the putative sacristy and of the barrel-vaulted chamber above it, which may have been bonded into the south-east angle of the original transept, was completely removed when the transept was enlarged. The sacristy was then converted into a slype by building a new end-wall with a rebated doorframe, although the rounded outer jambs suggest that this portal wall could be a century later than the enlargement of the transept. The original length of the sacristy may be indicated by the point where the chapter house wall increases in thickness. (Does this increase in the thickness of the wall imply that the chapter house was vaulted? The western half of the length of this wall could be thinner because the two levels of barrel vaults provided a response to the thrusts of a vault. The east half of the wall, which was free-standing, needed to be increased in thickness in order to withstand the thrust of vaults. The entire south wall of the chapter house was abutted by the undercroft.)

Immediately outside this new end wall, there is the broad flat buttress marking the beginning of the eastward extension which included the new east aisle (illus 52). The new buttress, of rather shallow projection with a nook-shaft at its east side (presumably, it was constructed against the original east end wall of the putative sacristy), does not bond with the end wall of the slype – another reason for considering that the latter may be a later insertion. For some reason not apparent, the new east wall of the upper chamber was made much thinner than the new lower wall, so that a gap was created between its outer face and the west angle of the buttresses, a gap which was nicely faced by well-cut blocks of ashlar. At about the level where



ILLUS 52 Lower part of south gable wall of transept: barrel-vaulted chambers and buttress of new work

the extrados of the barrel vault abutted the wall, the broad buttress was reduced to about half its width, apparently in order to accommodate the pitch of a roof over the east range. Part of the raggle sloping up to the middle lancet consists of a lip projecting from the surfaces of the blocks it crosses. The narrowed buttress was then continued upward to end with a setback below the lower east corner of the eastern lancet.

Several of these features allow or encourage the speculation that both barrel-vaulted spaces were closed at the east by a thin wall at the time of the enlargement of the transept, with a narrow strip of wall between their outer (east) face and the projection of the broad buttress. At a later date, the end wall of the lower space was replaced by a much thicker wall (of which the east face abutted the buttress), with a portal. The reason for the broad overhang of the roof over the end-wall of the barrel-vaulted spaces is not apparent; it must have produced a rather curious effect. The rebuilt lower south face of the south-west angle buttress is now flush with the plane of the south wall of the upper vaulted space (illus 14). At the level of the springing of the upper barrel vault, the east angle of the south-west buttress has four courses with an angle roll; two more are found four courses above (three courses above the reduction in width of the buttress: (illus 52). These are most likely insertions of reused blocks due to repairs as the angle roll is accompanied by a V-shaped groove to one side: on the lowest two courses, these grooves do not line up but, rather, are placed on opposite faces of the buttress; the third course lacks the paralleling groove altogether, as does the block in the ninth course. (A fragment with the same moulding is visible on the inside of the turret, in a large area of rough masonry which is the reverse of the area of patching on the south face above the lower barrel vault.)

The interior faces of the north walls of the lower and upper barrel-vaulted chambers are not in the same vertical plane, and the face of the transept above the upper chamber is yet again set back – however, on a plane diverging towards the north-west (illus 14). Some of the masonry of the south face of the transept above the upper barrel-vault is similar in character to that of the upper vaulted chamber: the stones are more square than those of the ‘new’ work which are long and narrow; the joints are quite coarse; the height of the coursing varies and is rather irregular (it now slopes down towards the west); same kind of greyish coarse stone is used (illus 52). Although there are some irregularities in coursing, they do not clearly define either vertical, diagonal, or horizontal breaks between what might be described as new or old work. Changes in the height of the courses, which involve one block angling over or into another, might suggest a juncture between early and later work in a slightly diagonal line between the eastern end of the upper barrel vault and the east corner of the middle lancet were it not for the fact that similar disjunctions occur in the undoubtedly later masonry to the east of the east lancet. Such discontinuities or irregularities as these jogs in coursing level appear to represent merely building breaks of presumably short duration. In the end, it might be possible to suggest that all the masonry above the level of the upper barrel vault belongs to the enlargement but with some masonry from the original gable wall reused. None the less, one has to admit the possibility that some of it is *in situ* from the earlier building.

The two barrel-vaulted spaces must have been equal in height to the chapter house. The slope of the roof suggests the monks moved through this roof space to gain access to the dormitory (illus 32). This arrangement may have been similar to that at Arbroath where the entrance to the dormitory was through a roof space. The pitch of the roof is completely evident on the exterior face of the south transept gable at Arbroath: its base line corresponds to the floor level of the wall passage reached by the spiral stair entered from a door at ground level just west of the south respond of the arcade of the transept’s east aisle.

## APPENDIX 2

### THE SOUTH-WEST STAIR TURRET OF THE TRANSEPT

As described in the text, the doorway giving access to the stair vice in the south-west angle of the transept has been remodelled (illus 9). It now leads into a small vestibule and the beginning of the vice which, above the first four steps and a mass of restored masonry occupying the site of four more, is a hollow shaft (illus 39). This small area is one of the most puzzling and difficult to interpret in all of the abbey ruins.

In its initial form, the doorway was arched, with a chamfered and rebated eastern jamb (which still remains unaltered) and a western jamb which was also chamfered externally. The west jamb was rebuilt

above the bottom three courses (which bond with the adjoining west wall of the transept) when the arch of the doorway was replaced by a lintel; only one block at the east with its eastern edge cut to a curve to conform to the line of the former arch remains as evidence of it.

The east jamb of the portal bonds in with the east wall 1.09 m wide of the vestibule. The lower eight courses are of narrow oblong blocks; a very high course (of two blocks) follows, then there is a setback which marks the level of the springing of the ribs above which there are five more courses. This (east) wall does not bond with the narrow south wall (0.89 m) of the vestibule (illus 17).

The south wall appears uniform in construction; however, it is not all in one plane (illus 18). The lowest three courses are in a plane which forms an acute angle (at the east) with that of the remainder of the wall above. In addition, in each of these courses, the west end of the block is angled (or cut?) back to the south, forming a vertical joint with the masonry of the vice proper which is to the west of that of the wall above. Above these three lowest courses, the next five meet the masonry of the vice – consisting of four courses – at an obtuse angle. A sixth course carries across this angle while the next two end in a quarter curve (the stones reused from the arch of the doorway?) against the mass of rubble which now constitutes the masonry of the vice at this level; six more courses follow before the underside of the ribless half of the vault is reached.

The south-west wall, which is the ashlar face of the mass of rubble on which the lower steps of the vice are placed, consists of seven courses before it gives away to rubble. The first three correspond to the lower three of the south wall, which (the latter) appear to overlap them (the former), and the heights of the courses are not the same. As noted above, the next four courses correspond with the next five courses of the south wall. At the west end, the first four courses abut the newel of the stair vice (illus 53); the succeeding three courses are stepped back towards the east, the area between them and the stair vice wall above the first four steps *in situ* being filled in irregularly by ashlar blocks in step-like form which are clearly the product of an effort to conserve the ruins.

The four steps *in situ* are integral with the newel (illus 53). The north half of the lowest step has, it would seem, been cut back, so it is now a triangular wedge pointing outwards (to the east). The three upper steps appear to be the same height as the coursing of the curved inner wall of the turret and one can make out the ghost of four more steps in the wall above (where the steps have been replaced by the ashlar blocks in a step-like form). Above this point – that is, above the level of the seventh course of the turret wall – the south side of the turret is blocked with rubble up to a level approximately equal to the ribbed vault of the vestibule.

Above this level, the turret, which survives nearly to its full original height, has been robbed of all its steps, except for a short section of five complete steps and fragments of two others. In the turret wall there is first a large patched area on the south side which probably was the location of an exit to the upper barrel-vaulted chamber. Above this area, there is a blocked exit, facing south-east, which formerly led to the level over the barrel-vaulted chamber above the sacristy and, presumably, on to the dormitory; then, a quarter revolution above it, there is an exit facing north to the lower passageway in the west wall of the transept (it is in the area between the lintels of these two exits that the few remaining *in situ* upper steps are found). There then follows a third exit, facing east, leading to the lower passageway across the south gable; a fourth exit, facing north, connecting with the clerestory-level passage of the transept's west wall; and, finally, a fifth exit, facing east, and corresponding with the clerestory level of the south gable.

Over the squarish area formed by the doorway and the east and south walls are the remains of a ribbed vault (illus 17). The two ribs *in situ* spring from positions flanking the inserted lintel of the doorway (just at the setback formed at the top of the high course of masonry in the east wall). They are massive and unmoulded; the keystone is missing. The south part (it is less than half) of the vault is constructed of rubble, some of which seems original, which meets the south wall in an irregular horizontal line. The south edge of the vault over the vestibule was formerly bounded by an arch, of which only the unmoulded springer remains, which separated it from the space of the vice proper.

The north wall of the vice, that is, the section between the curved (west) wall of the turret and the doorway, appears to be of the same build as the renovated parts of the west jamb of the doorway, of which (as noted above) only the first three courses belong to its initial phase. An irregular joint at the west affects the four courses immediately below the springer of the west arch of the vault.

If the vestibule initially formed both a passageway to the adjacent sacristy (later altered to a slype), and gave access to stairs descending from the dormitory, then it is understandable why there is no bond between it and the south wall. The existing south wall should then be the product of the blocking of the passageway at



ILLUS 53 Remaining steps of newel stair in south-east vice of transept

the time that the sacristy was converted into a slype. When the passageway was blocked, the south half of the ribbed vault was removed because the blockage was made thicker than the doorway which must have existed between the vestibule and the sacristy. (The north face of the blockage is to the north of the northern jambs of that doorway of which there is now no actual visible trace.) What is not readily evident is why the south wall is not all in one plane and why there is no clear continuous vertical joint at the west. The reason for the two courses (10 & 11) which together end in a quarter curve at the west, is equally obscure, unless it is simply the consequence of re-using stones from the arch of the doorway.

It is difficult to decide if any part of the existing steps belonged to the original stairs leading to the dormitory. As the upper three of the four steps *in situ* correspond in height to the courses of the interior wall of the turret, and as there is no sign of disturbance or variation in the coursing of the wall above them, and above where the succeeding four steps above them would have been, it seems most probable that the entire stair vice was rebuilt at the time that the east end was enlarged.



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## NOTES

- 1 There were three other smaller houses: Lesmahagow (Lanarkshire), founded in 1144 by David I; Fogo (Berwickshire), a chapel granted to Kelso by Patrick Corbet, 1253/97; and Fyvie (Aberdeenshire), founded by Reginald le Chen in 1285. A fourth abbey was established at Lindores (Fife) by David, Earl of Huntingdon, in 1191. The Order, founded c 1105 by Bernard of Tiron (*ob.* 1116/17), settled at Tiron, near Chartres, in 1109. See Cowan & Easson 1976, 66–71.
- 2 Cowan & Easson 1976, 68–9 and 66–7, respectively.
- 3 Cowan 1986, 267–8; cf. Macleod 1878, 128–9 (foundation date).
- 4 1140: Cowan 1986, 268, cited an (incorrect) reference to 'J Spottiswood, *History of the Church of Scotland* [sic] (London, 1677), 407': there is no reference to Kilwinning on Spottiswoode 1677, 407 (nor are either de Moreville or Kilwinning mentioned in the index); in the Appendix (by T Middleton) to the 4th edition (1677) no date is cited. 1140 was given by Chalmers 1807–24, vol 3, 548, without citing his authority. 1157: lost register (Eglinton no 279), formerly in London. 1191: according to Timothy Pont; see Dobie 1876, 254–5.
- 5 Dempster 1622, 69–70; Spottiswoode 1677, Appendix (by T Middleton), 15. (Richard: Eglinton no 279, and Pont, Dobie 1876, 254.) Cottineau 1935 & 1937, vol 1, 1519: founded 'avant 1062, ou 1107, par Hughes de Morville', citing Barrett 1913, 79, and Montrond 1856, col. 426. For Hugh (briefly), see Edwards (1924), 332, who favoured a foundation date of c 1150, and Cruden 1986, 83–4.
- 6 The *Gesta Regis Henrici*, Stubbs 1867, vol 1, 312–13, gives an account of a fountain having run with blood for eight days at 'ecclesiam Santi Vinini in occidentalibus partibus terrae regis Scotiae, infra Cuninham, no longe a castello de Hirun', in June 1184. (Anderson 1908, 286, 327–8.)
- 7 At that time, they were in the possession of the Earls of Eglinton: Cowan 1986, 267.
- 8 For the establishment of the Tironensian Order in Scotland, see Barrow 1960, 29–38; he accepted Hugh as the founder, as did Anderson 1954, 97.
- 9 *Registrum* 1843, vol 1, 84, no 98. Kilwinning appears in a list of monasteries in Scotland by Gervase of Canterbury, in his *Mappa Mundi*, c 1210: Stubbs 1879 & 1880, vol 2, 441–2.
- 10 Grose 1789 & 1791, vol 2 (1791), 214, pl between 212–13. See also Dobie 1876, pl facing 268 ('Kilwinning Abbey': a view from the south-east with the parish church at the right).
- 11 Anonymous 1814, 723–4, pl facing 721 (contents page). For another view of the original tower, see Denholm ('J.D.') 1802, 243–4, pl facing 241 (contents page) (drawn by J Denholm, engraved by R Scott).
- 12 Eg Cruden 1986, 61. The most precise identification of building phases is limited to the brief sentence or two in *Discovery Excav Scot* 1961, 54, and *idem* 1963, 60 (repeated in Stevenson 1985, no 56, 94–5).
- 13 Galloway 1878, 89–114.
- 14 MacGibbon & Ross 1896–7, vol 2 (1896), 73–86.
- 15 A notable example of both of these tendencies is the west portal of Arbroath Abbey, which will be discussed further below.
- 16 Eg of the retention of the semicircular arch, the portal of the west tower of Dundee Church (Angus; MacGibbon & Ross 1896–7, vol 3, 126, fig. 1049), of the mid 15th century; of the reappearance of the barrel vault, Seton Collegiate Church (East Lothian), c 1470–1508 (Cruden 1986, 184–6, pl 65): both structures have otherwise clearly identifiable Late Gothic forms.
- 17 Eg the rather 13th-century mouldings and capitals of the late 15th-century inner portal of the so-called Halkerston Tower at St John's Kirk, Perth: MacGibbon & Ross 1896–7, vol 3, 120, fig 1045.

- 18 There is some evidence at the west end of the north side of the adjoining slype (as it is now), that a doorway formerly opened between it and the transept. These areas, difficult to interpret, will be discussed further below. For detailed descriptions see Appendices 1 and 2.
- 19 Waverley: Fergusson 1984, 26–7, fig 3; other later examples cited by Fergusson are Sawley (Yorkshire), c 1150 and, in Norway, Lysa, after 1146. Tintern: Brakspear 1929; Clapham 1934, 77, fig 25. Fountains: Gilyard-Bear & Coppack 1986, 178–83, figs 14 & 15.
- 20 This type of plan does not seem to have been typical of the earliest French Cistercian churches: Cîteaux I (cons. 1106), Pontigny (fd. 1114), and Clairvaux I (1115). The earliest example of a long aisleless nave, transept arms with chapels and (apsidal) presbytery is Ourscamp, fd. 1129: Fergusson 1984, 27, and bibliography cited nn 19–22. The plan of the earliest Tironensian foundation in Scotland, at Selkirk (Selkirk), is unknown (the site has never been located). The east end of its successor at Kelso has not been excavated: according to a 16th-century description, it had an eastern transept and crossing tower, but the nature of the choir and of the chapels, or their number, is not known.
- 21 Holyrood: RCAHMS 1951, 130, fig 290; width of nave, 7.01 m. (Widths of other naves: Waverley, 7.31 m; Tintern, c 8.53 m; Fountains, 5.2 m: also the length of a transept arm).
- 22 A very similar plan seems to have appeared in a non-Cistercian context in Wales, at the Benedictine priory of Ewenny (Glamorgan) which has been recently redated from c 1141 to 1116–26: Thurlby 1988, 281–94. Ewenny, however, became a priory only in 1141; the reasons for a plan of this type occurring before 1126 in a non-monastic context were not considered by Thurlby.
- 23 As at Fountains II (1147–52), Buildwas (1150–60), Roche (c 1170), and Abbey Dore I (1170–80): Fergusson 1984, 42–3, 92, 63, 95.
- 24 The evidence for the relationship of the transept arms to the nave at Holyrood was not actually uncovered (RCAHMS 1951, fig 289). At Waverley and Fountains (also Lysa), the (lower?) transept arms were separated from the nave space by walls: Fergusson 1984, 26–7. Fergusson described the crossing (termed an 'unsegregated' crossing) at Tintern as similar to those at Waverley and Fountains. Gilyard-Bear & Coppack (1986, 191), however, specifically noted the transept arms at Tintern were *not* walled off from the nave. Fergusson (1984, 28), pointed out that similar plans were used by the Premonstratensians, eg in England, after 1143, Torre (Devon), Cockersand (Lancashire), Egglestone (Yorkshire), and Bayham (Sussex), as well as by the Austin canons, Kirkham and Haughmond (Yorkshire).
- 25 MacGibbon & Ross 1896–7, vol 1, 230–58 (esp. 238) and figs 211–12 (on 246–7); Cruden 1986, pl 8 & 33 ('triforum', 1150–80?); Walker & Ritchie 1987, no 62, 120–1; Gifford 1988, 175–80 (esp. 180). The gallery openings at Dunfermline do have a shaft and moulded arch recessed midway through the thickness of the wall, which makes the austerity of the more visible arch to the nave all the more peculiar.
- 26 MacGibbon & Ross 1896–7, vol 1, 259–92 (esp. 273); RCAHMS 1946, no 399, 113–25 (esp. 123); Cruden 1986, pl 38 (choir dated c 1140) and 119, 1137–42 (cf Cruden 1977, 85–97 [87–8: 1137–42], figs 1 & 5).
- 27 Although an Augustinian priory was established at Carlisle c 1123, it was not until 1133 that a see was created by Henry I: Dickinson 1950, 245–6; Knowles & Hadcock 1971, 139, 152. If begun 1123/33, the nave most probably had not been reached by 1136 when the city reverted to Scottish control (annexation by David I) until shortly after the death of the first bishop, Adelulf, in 1156. Its construction in the years 1136–56 would therefore place it in the ambit of the architecture of the northern kingdom. Also see Gem 1989, 24–5, 28.
- 28 MacGibbon & Ross 1896–7, vol 1, 448–64; RCAHMS 1915, no 258, 132–48 (esp. 138–44); Baldwin 1985, no 68, 118–19; Cruden 1986, 83–7. Richardson & Tabraham (rev) 1937/87 offered no further thoughts on the dating of the cloister range.
- 29 R Fawcett has suggested to me that this portal, or at least its arch, might be a much later insertion because of the fineness of the cutting and of the joints. It was probably blocked up when the nave was rebuilt and (possibly) lengthened two bays prior to the construction of the west transept, because a new larger portal to the cloister (now blocked – the blocking post-Reformation) was included in the easternmost of the two new bays.

- 30 MacGibbon & Ross 1896–7, vol 2, 281–5, esp. 283.
- 31 For Arbroath in general see: Mackie & Cruden 1954/82; Walker & Ritchie 1987, no 63, 121–2; and now most especially Fawcett 1994a. This section of wall may predate the main construction of the church which Fawcett (1994a, 61–2) places in the 1190s.
- 32 Could the reverse relationship of the rebate and splay indicate this wall was originally the *north* wall of a small church or chapel located on the site of the existing north walk of the cloister? Fawcett 1994a, 62–3, does not comment on this feature of the portal.
- 33 See above, n 19.
- 34 *Discovery Excav Scot* 1962, 55, 'Excavation in 1962 south of the abbey church has revealed parts of the foundation of the cloister arcade, and a section of the footings of the 12th–13th century south range'; *Discovery Excav Scot* 1963, 60, 'Excavation in the area of the monastic buildings revealed further details of the south range, largely reduced to its foundations'; *Discovery Excav Scot* 1983, 60, 'Limited excavation was carried out within the slype, and in the area of the E. processional doorway and E. cloister, in order to establish original occupation surfaces in advance of a programme of restoration' (also reported by Youngs, Clark, & Barry 1984, 262).
- 35 For a measured elevation and plan see Galloway 1878, pl 8.
- 36 The newel stair and its vestibule will be discussed further below, and is fully described in Appendix 2.
- 37 For a measured elevation, plan and profiles see Galloway 1878, pl 7 & 8.
- 38 At present, the remains of three barrel vaulted rooms occupy the northern two-thirds of the west range. The two southern portals of these rooms appear to be totally uniform in build, but are certainly later construction on earlier foundations. Fawcett has suggested the possibility that the series of later barrel-vaulted rooms which occupy the site of the west range of the cloister might be pre-Reformation, on analogy with the restructuring of the west ranges at Dryburgh (Richardson & Tabraham 1937/87, 21), Dundrennan (Richardson & Tabraham 1981, 16–17) and even more extensively at St Andrews. At these sites, though, vaulted cellars were created which seem different from the domestic character implied by fireplaces and windows of the range at Kilwinning.
- 39 See above, n 28, and esp. Cruden 1986, 84 pl 25 and 86. RCAHMS 1915, 138–44, referred to the slype and chapter-house doorways as having been 'modernized', but without offering further explanation.
- 40 MacGibbon & Ross 1896–7, vol 2, 81, 84, 85, figs 506 & 507. The west wall was considered a 'somewhat late design' because the capitals (sic) did not follow the jamb mouldings.
- 41 MacGibbon & Ross 1896–7, vol 1, 453, fig 413.
- 42 MacGibbon and Ross 1896–7, vol 2, 283, fig 703 (282); Fawcett 1985b, 38, fig 51; Shepherd 1986, no 54, 115 (dated to the late 13th century).
- 43 See Garton 1987, pl 4 & 74, 81 (for date).
- 44 Hope 1900, 239 (north transept portal), 252 (cloister portal), or Hope 1902, 19–20, 32; Kaines-Smith 1914, 289, 292; Dickinson 1965, plan, 'mid to late 12th century'; Dickinson 1967, 51–80 (there is no mention of the cloister portal).
- 45 Cowan & Easson 1976, 88, 91 (a date of c 1153 is now preferred); initially a priory, it was elevated into an abbey in 1235. MacGibbon & Ross 1896–7, vol 2, 324, fig 752 (332, dated towards the end of the 13th century); Paterson 1925–6, 232, 245 (chapter-house before 1265?). Paterson & McRoberts 1984, 23, did not mention the portal and merely dated the chapter-house to the 13th century. For Inchcolm, see also Gifford 1988, 242–6, esp. 245 (242, chapter-house after 1235); RCAHMS 1933, no 14, 6–15 (esp. 9), fig 85; Walker & Ritchie 1987, no 61, 118–19.
- 46 MacGibbon & Ross 1896–7, vol 1, 471–4; C Wilson *in* McWilliam 1978, 276–7.
- 47 MacGibbon & Ross 1896–7, vol 1, 366–70; C Wilson *in* McWilliam 1978, 273–4.
- 48 MacGibbon & Ross 1896–7, vol 2, 286–7 ('mouldings are of thirteenth century forms'), fig 708.
- 49 Leask 1958, 40–1 ('stands somewhat apart from other Irish work'), pl III; Stalley 1987, 171, fig 71.
- 50 It was so considered by Fawcett 1994b, 115–16, fig 3.34 ('... another example of the western Scottish late medieval predilection for reviving earlier forms'), but he did not offer any comparisons or further analysis. For a discussion of Romanesque revival architecture as part of a 'wider movement intended to express Scottish identity', see Campbell 1995, esp. 302–12; the differences – or similarities –

- between the revivalistic forms and the original, however, are not considered (ie *style* is not discussed). One is left with the impression that what constituted 'Romanesque' to the later period was primarily the semicircular arch.
- 51 MacGibbon & Ross 1896–7, vol 3, 330–7; fig 1261. The display inside the church describes the nave and its portal as an extension of the original church of c 1452.
- 52 The so-called Bride's Door, in the Halkerston Tower, dating to the late 15th century: Fawcett 1987, 8–9, 27.
- 53 See above, n 16.
- 54 The 13th-century forms, especially of the bases, of the lateral choir portals of St John's Church, Perth, are most likely the result of 19th-century restoration: see Fawcett 1987, 22, 23, 29.
- 55 Dobie 1876, pl facing 256 ('Doorways of Kilwinning Abbey'). For a measured elevation, plan, and details of capitals, archivolt decoration, and base profiles see Galloway 1878, pl 5 & 6.
- 56 Only the merest trace of the decoration on the eastern bases, as shown by Galloway 1878, pl 6, is still visible, now only on the eastern inner base.
- 57 Part of this area is patched in two unequal vertical strips: it is not clear why this should be so. The entire section of wall east of the portal may have been patched more than once; it is also likely that the (missing) respond itself was an insertion at the time of the reconstruction of the nave.
- 58 For Dryburgh, see Cruden 1986, 86. For Kirkliston, see above, n 47 (*pace* Wilson, in McWilliam 1978, 274, who describes the bases as 'waterholding').
- 59 Water-leaf foliage appeared in the choir of York Minster, as rebuilt by Archbishop Roger Pont l'Évêque (1154–81), from the late 1150s to 1166, and at Ripon Minster in the 1160s, anticipating the 'nearly exclusive reliance on waterleaf foliage in late twelfth-century northern English churches, both Cistercian and non-Cistercian': Wilson 1986, 104–5, n 63. For Kelso see: Baldwin 1985, no 70, 122; Cruden 1986, 42–54, dated the west transept c 1160.
- 60 It appears in one of the few surviving capitals of the dado arcading of the west wall of the south arm of the transept. For St Andrews, see Cant 1974, 78, 84, or 1976, 12, 21; Walker & Ritchie 1987, no 64, 1123–?. On water-leaf at St Andrews, see Thurlby 1994, 53–4.
- 61 Garton 1987, 78–80, and 81 where she suggested a date 'around the 1180s'; Fawcett (1994a, 64) also placed the beginning of the Jedburgh nave 'hardly ... earlier than the 1180s'.
- 62 C Wilson in McWilliam 1978, 274, on the basis of the presence of water-holding bases.
- 63 Stiff-leaf foliage appears to have appeared in England c 1180. See Fergusson 1984, 64, n 40; he cites, as early dated examples, St Frideswide, Oxford, 1178–80 (west bays of 'chevet'), Canterbury Cathedral, 1182–4 (Corona Chapel), Dover Castle, 1181–7 (chapel). This dating seems to be confirmed by Halsey 1988, 132, 159 (133: east bay of nave erected c 1180–5).
- 64 For the shaft in the south-west corner of the crypt begun by Bishop Jocelin (1174–99), c 1200, see: Radford & Stones 1964, 222–3, pl LXIIIa; Fawcett 1985a, 25–6; Fawcett 1990, 120, 125.
- 65 Wilson 1984, 130.
- 66 MacGibbon & Ross 1896–7, vol 2, 30–52; Cruden 1986, 54–60. Fawcett (1994a, 61) considered it likely that the construction of the church at Arbroath did not begin until the 1190s.
- 67 RCAHMS 1956, 198, pl 41, fig 239; Garton 1987, 70–5. Garton (*ibid*, 74, 80) identified the capitals of the west portal as two-tiered crocket, admitting that they differed in that respect from the crocket capitals in the nave and therefore suggested northern French Gothic influence. She may well be correct, as her date for Jedburgh, 'around the 1180s', would suggest the appearance of stiff-leaf there would be rather precocious considering its advent in England is dated to the same period (see above, n 63).
- 68 Fawcett (1994a, 66, n 16) also suggested that the choir of Coldingham Priory (Berwickshire) should more likely be placed in the last years of the 12th century than after 1216, therefore an(other) example of fully developed stiff-leaf in the 1190s.
- 69 MacGibbon & Ross 1896–7, vol 3, 7–28. Howell 1929, 68–9, dated the inner doorway (pl facing 68) to the 14th century.
- 70 Wilson 1984, 130–1, 134–5; rudimentary stiff-leaf had appeared in the capitals of the north aisle blind arcade, c 1195.

- 71 The building of the extended east limb under Bishop William Bondington (1233–58) was certainly under way by 1242: see Fawcett 1985a, 27–8, or 1990, 109, 125–6.
- 72 R Fawcett informs me that the foliage was partly renewed in plaster in the 19th century.
- 73 MacGibbon & Ross 1896–7, vol 2, 203–15.
- 74 MacGibbon & Ross 1896–7, vol 1, 376, fig 339; Stevenson 1985, no 59, 98. The inner continuous jamb/order is carved with spaced zigs and flanking bar-linked diamonds. (The outer order is ringed with bobbins.)
- 75 Garton 1987, 73.
- 76 None the less, C Wilson in McWilliam 1978, 274, 'late 12C'.
- 77 RCAHMS 1946, 116 (north-west portal, c 1215; central and south-west portals, c 1220), pl 20, fig 167; Ritchie 1985, no 49, 97–9.
- 78 Garton 1987, 76–7.
- 79 The standing remains have been dated c 1175–80: Fergusson 1984, 62, pl 59.
- 80 It is stored in the cloister walk.
- 81 These dates seem to parallel the appearance of the motif in England: see Garton 1987, 74 and n 51 for examples.
- 82 Garton 1987, 75–6.
- 83 See above n 42.
- 84 Howell 1929: south-west cloister portal, 59, 70 (13th century); north porch, 68–9, pl facing 68; west doorway, 70, pl facing 68 (13th century).
- 85 MacGibbon & Ross 1896–7, vol 2, 121–45 (esp. 133), fig 549 (132); Richardson & Mackintosh 1934, 7–8 (1950, 7–8); Shepherd 1986, no 47, 108–9.
- 86 Gifford 1988, 366. Fawcett disagrees with Cant 1974, 21–2 or 84–5, who suggested that the conventual buildings were built under Prior John White (1236–58); Cruden 1950, 20 (chapter-house entrance ensemble, mid-13th century); he thinks they must have been started earlier.
- 87 Mackie & Cruden 1954/82, 27–8, pl 3: c 1190. The north portal at Arbroath (at the west end of the north aisle, immediately preceding the tower), however, has a strongly pointed arch and finely moulded orders: *idem*, 26, c 1200. Surely a date of 1190 for the west portal is far too early; the retention of the semicircular arch gives it an archaic air which is belied by the thinness of the motifs and the splayed structure of the jambs.
- 88 Howell 1929, 22, 59, pl facing 29: 'Transitional'.
- 89 The outer order here is a peculiar motif formed by five thin rolls banded by six billets: an almost identical pattern is found on the middle order of the doorway of Bishop Pudsey's Hall in Durham Castle, dated c 1160–73. For the Furness portal see Fergusson 1984, 60–1, pl 56, dated c 1160/5–75.
- 90 The Calder west portal has been dated c 1175 (cf the crossing consoles at Furness): Fergusson 1984, 61–2, pl 58.
- 91 The Jervaulx nave is dated c 1185: Fergusson 1984, 84, pl 87 (cf 83, c 1190).
- 92 The west portal at Selby Abbey (Yorkshire), with three of its four orders and the double orders of its inner jamb decorated with vigorous layered chevron in three different patterns – the fourth order a large roll covered by latticework itself executed in a roll – should be mentioned here. The capitals of the detached shafts are uniformly of the water-leaf type, providing a standard dating for it of c 1180, and a description of it as 'Transitional' in style.
- 93 See Fergusson 1984, 44, pl 13 (51, Kirkstall west portal, 1165; 84, 82–3, Byland west portals, c 1190).
- 94 For an early engraving of the arch to the chapel bay of the aisle, see Dobie 1876, pl facing 256 ('Doorways of Kilwinning Abbey').
- 95 R Fawcett has suggested – with reservations – that the roof line might represent a later alteration and that the dormitory could originally have stopped short of the transept with just a passage connecting the night stairs to the dormitory. I think this is unlikely because the raggle is a projection from the wall face, rather than a cutting, so the roof would seem to have been planned with the gable wall.
- 96 See Appendix I for a fuller description of this problematic area.
- 97 MacGibbon & Ross 1896–7, vol 1, 388–98 (plan: 389 fig 351); 1899b, 57–97, plan pl II; RCAHMS 1914, no 398, 217–22; Richardson 1949; Fergusson 1973 (remodelling c 1180–5); 1984, 66–7, 83; Stell 1986, no 73, 151–2; Cruden 1986, 76–9 (c 1160).

- 98 MacGibbon & Ross 1896–7, vol 3, 132–9; 1899c, 199–233, plan pl I; Stell 1986, no 72, 150–1.
- 99 MacGibbon & Ross 1896–7, vol 2, 334–44 (plan: 335 fig 756); 1899a, 3–55, plan pl III; RCAHMS 1914, no 380, 200–8, plan fig 151 (202); Cruden 1986, 137–43; Stell 1986, no 71, 148–9.
- 100 Fergusson 1984, 83, fig 17: north transept remodelled 1185; 12-shaft piers, influence of Byland. See also Fergusson 1973, 232–43, esp. 237–9.
- 101 Of the Holyrood piers, Hoey (1987, 255 n 67) observed, 'the coursed compound piers bear little relation to the usual northern cluster'. See now Hoey 1994, 89–92.
- 102 MacGibbon & Ross, 1896–7, vol 2, 146–60. See also specifically Hoey 1994, 94.
- 103 Well before Exeter, 16 shafts had appeared in the in the north in the coursed piers of Cistercian Rievaulx, c 1215–25.
- 104 Hoey (1987, 255 n 67) referred to the clustered pier at Kilwinning as an 'interesting if forlorn exception to the inviolability of the clustered pier'.
- 105 Prickett 1835, 39–50 (architectural description), esp. 48; Dykes 1854, 40–54, esp. 48–9, pl facing 49; Pevsner 1972, 196–9.
- 106 Fergusson 1984, 81, and n 46; 82, 1170s; the principal shafts were keeled (an eight-shaft pier was used in the south arm and first four nave bays).
- 107 Brakspear 1922, 1–59, esp. 22–9; Pevsner & Harris 1989, 112–14. Wilson (1986, 108–9, fig 9, n 80) derived the pier form from Kirkstead (10 km), which he argued was begun in the 1150s: cf Fergusson (1973, 238 n 2) who thought it was influenced by Byland.
- 108 Hoey 1987, 255 n 64. A 12-shaft pier may have occurred at the west end of the south arcade at Old Malton Priory (fd. 1150): Hoey, 254 n 62; Pevsner 1966, 232–3. For pier design in Early Gothic architecture in east-central Scotland, see Hoey 1994.
- 109 Fawcett (1994a, 67) suggested that these aspects of Arbroath derived from Hexham begun in the 1180s. A similar discordance between (choir) respond and arcade pier occurred at St Andrews, and was, apparently common in the north: see Cambridge 1977, 280, and Hoey 1994, 87.
- 110 Hoey (1987, 251 n 43) argued for the shafts starting at abacus level rather than from the floor as suggested by Wilson (1986, 109 n 81).
- 111 Hoey 1987, 251 n 43.
- 112 Wilson (1984, 130) dated the nave (including aisle walls) of Holyrood between c 1195 and c 1230, Fawcett (1985, 27, 29) the choir of Glasgow from about 1242 to c 1275. Hoey (1987, 253 n 55), with regard to the Glasgow choir piers, noted that 'they are not really clusters because they lack four-axis symmetry and include responds for some of the shafts'.
- 113 For the unusual Holyrood and Glasgow piers, as well as the matter of vertical articulation, see Hoey 1994, 92–3.
- 114 The west lantern tower had small oculi flanking the apex of the roofs against it, with quatrefoil-shaped inner frames.
- 115 Encircled quatrefoils flank the gabled niches above the west portal, c 1270: see Fawcett 1993, 21.
- 116 For a review of the discussion surrounding the sources of Ripon's design (in almost every respect but the pierced tympana), see Hoey 1986, 250–5.
- 117 Pevsner 1957, 173: begun c 1180. See also Fawcett 1994a, 66–7: gallery level, 'a date into the 13th century'.
- 118 Kidson 1977, 1/3/31–3, 59–60, 100–5, 165–6, 173; 1978, 1/5/68–70; Pevsner & Harris 1989, 450–5, 459, 461.
- 119 Hoey (1986) did not comment on the appearance of this element of the decorative vocabulary. On the relation between York and Lincoln, see esp. *ibid.*, 232–5.
- 120 Coldstream 1986, 149 n 43 (transept triforium: 'plate tracery' pattern in the spandrel).
- 121 Clapham 1952, 11–14.
- 122 See above, n 68; also Cruden 1986, 136, pl 50.
- 123 The earliest pierced tympana of a building in Scotland were probably those inserted under the gallery arches in the choir of Jedburgh, followed by (or, at the same time as?) the nave gallery tympana: the shape is a vesica (pointed oval).
- 124 South transept: Fergusson 1984, 83, c 1190; Cruden 1986, 60, pl 16, complete by 1214/15. Fawcett

- (1994a, 65) suggested that the inspiration behind Arbroath's south transept façade was Jedburgh's west front, and behind Jedburgh the west front of Kelso.
- 125 Three tall lancets with a vesica-shaped oculus above the tallest central one (and short lancets over the flanking lancets) dominate the *east* façade of Tynemouth, c 1190–1200: Knowles 1910, 1–50, esp. 12–15, pl V; Fergusson 1984, 83 (c 1200), pl 86.
- 126 Previously broadly dated 1181–1254 (consecrations): Laurence 1950–1, B1–B50, esp. B30–1, pl II (facing B40); Baillie Reynolds 1946; *VCH* 1970, 226–30, esp. 229 (at Croxden, the two long lancets appear to have been crossed by the roof of the east range as happened at Kilwinning, see pl facing 229). Now see Hoey 1993, 38–9 (date), 43.
- 127 Hoey 1986, 239, singled out these façades as parallels (if not exactly prototypes) for the domination of the main elevation of the façade by a single tier of lancets (as opposed to the tradition of two main tiers, eg Hexham north transept, Whitby east and north façades, Ripon west front, Southwell east end, Brinkburn west front, and Beverley main transept, to which may be added Rievaulx east front).
- 128 See Macleod 1878, 132–7, especially the record of a gift of the holdings of Andrew of Murray (de Burt), Bishop of Moray, 1222–42, by Alan, c 1222 (items 2–6).
- 129 Macleod 1878, 116.
- 130 Excavations took place in the early 1960s, but it is not known exactly what was discovered at that time, as the report is not available or has been lost. There are brief and tantalizing references to the excavations in *Discovery Excav Scot*, 1961, 54: 'The work of construction was well advanced by the end of the 12th century, but was suspended before the west end of the church or the west claustral range were completed. Work was recommenced to a more ambitious plan in the 13th century, but this also was never fully carried out'. *Discovery Excav Scot* 1963, 60: 'Excavation within the abbey church revealed the sill wall for the nave arcade, and gave further evidence that the nave and west end of the abbey church (for which an ambitious extension was planned in the late 13th) were never completed'.
- 131 See Galloway 1878, pl 2.
- 132 The remains of low barrel-vaulted rooms now occupying the site, perhaps forming the ground floor of units rising two, three, or even four stories, appear to represent a post-Reformation utilization of the range, perhaps equally drastic as the rearrangement of the west range at St Andrews. See above, n 38.
- 133 A single battered but somewhat similar capital from a wall shaft survives amongst a collection of miscellaneous fragments stored in the west porch at Holm Cultram: the bell has two rolls below the moulded upper rim.
- 134 MacGibbon & Ross, vol 2, 344–82.
- 135 Simpson 1923–4, 227–38, esp. 237–8 (north-east crossing pier base: fig 5 on 238); Close-Brooks 1986, no 53, 115. An isolated example of one double roll base is found in the easternmost north respond of the north choir aisle (former Lady Chapel, now sacristy) at Dunblane Cathedral (Perthshire), c 1233: MacGibbon & Ross 1896–7, vol 2, 86–112, esp. 92 (time of Bishop Clement, 1233–58).
- 136 Very wide fillets are found on the major shafts of the main crossing piers at Lincoln, after 1237/39; narrower ones were to appear in the Angel Choir, c 1260. Wide fillets still make an appearance in the south aisle of Fortrose Cathedral in the 15th century: Close-Brooks 1986, no 54, 116.
- 137 Further excavations were carried out in 1985 in the area of the west transept. See the report (typescript), Ewart 1985, in the files of Historic Scotland. A brief notice appeared in Youngs, Clark & Barry 1986, 194; I am grateful to R Fawcett for bringing this to my attention.
- 138 See above, n 11.
- 139 See Grose 1789 & 1790, vol 2, pl between 212/13; Denholm, pl facing 241. Two drawings in the Hutton Collection, National Library of Scotland, Edinburgh, are related to the Grose engraving. One, Adv. MS. 30.5.22, no 28i, is in pencil, executed with some ruled lines, from a somewhat elevated or aerial viewpoint; on it is written in ink, 'Kilwinning 1789. / communicated by the Revd. W. Pollack. / 1 Steeple / 2 supposed to be part of the Abbots house / Church Yard'. The second, Adv. MS. 30.5.22, no 28h, is executed in pen and ink wash; its viewpoint corresponds more closely to the engraving except that all the north/south planes are shown as parallel to the picture plane.
- 140 National Library of Scotland, Adv. MS. 30.5.22, no 28g; it is identified as, 'Old tower of Kilwinning

- Abbey as it stood in 1806. / Com'd. by the Rev'd. Mr. Sterling, Min'r. of Port Monteith.', in two different 19th-century hands.
- 141 This area was completely excavated in 1985; see Ewart 1985, 2 (*The South West Tower*), for a description of the nature of the foundations encountered.
- 142 One block of the south jamb of the west portal was formerly *in situ*; it bore traces of the footings for two circular shafts and, possibly, of two others: it is now missing. This block was not mentioned by Ewart in his report: (1985, 1–2, *The West Door*).
- 143 The blocks south of the shaft are chamfered: according to Fawcett threshold blocks can be chamfered. The (blocked) middle portal in the south aisle wall at Dryburgh may be an example of this feature.
- 144 For a summary of the significance and the problems presented by the west transepts of these buildings see McAleer 1991, 349–56.
- 145 For the constructional sequence and several changes of intentions concerning the form of the Peterborough west front see Peers 1906, 440–1, 444. And more recently, Reilly 1991, 208–57 (Ch 5; the thesis is currently being revised for publication).
- 146 RCAHMS 1956, 240–2; Cruden 1986, 42–54.
- 147 For the west front of Arbroath see McAleer 1994, 70–83. At Paisley, the faces of the west tower piers towards the nave, a width of 1.04 m, are flat, without shafts.
- 148 See RCAHMS 1956, 244, fig 303 (on pl 56); Cruden 1986, 46, 50.
- 149 The naves of both abbey churches were retained for use as parish churches after the Reformation, until abandoned for new buildings in the 18th century.
- 150 Galloway 1878, pl 4. See Ewart 1985, 2–3 (*The Secondary West Wall*) for the investigations, primarily along the east face of the wall, which took place in 1985.
- 151 Galloway 1878, 95 and pl 4; MacGibbon & Ross 1896–7, vol 2, 80; Barrett 1913, 80.
- 152 John Knox recorded that the Earls of Arran, Glencairn, and Argyle pulled down the abbeys of Fail, Kilwinning, and Crossraguel: Laing 1846–64, vol 2, 168. Grose 1789 & 1790, vol 2, 213, attributed the demolition at Kilwinning specifically to Alexander, Earl of Glencairne, in 1560: the destruction at this time, however, may have been directed more to the east end than to the west which continued to serve as parish church.
- 153 See Ewart 1985, 2, 3.
- 154 Mackie & Cruden 1954, 33; Mackie & Cruden (Fawcett) 1982, 11, pl 8.
- 155 Stevenson 1985, no 51, 88–9; Cruden 1986, pl 56.
- 156 Galloway 1878, 91.

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