Jedburgh Abbey church: the Romanesque fabric

Malcolm Thurlby*

ABSTRACT

The choir of the former Augustinian abbey church at Jedburgh has often been discussed with specific reference to the giant cylindrical columns that rise through the main arcade to support the gallery arches. This adaptation of the Vitruvian giant order, frequently associated with Romsey Abbey, is here linked with King Henry I's foundation of Reading Abbey. The unusual design of the crossing piers at Jedburgh may also have been inspired by Reading. Plans for a six-part rib vault over the choir, and other aspects of Romanesque Jedburgh, are discussed in association with Lindisfarne Priory, Lastingham Priory, Durham Cathedral and St Magnus Cathedral, Kirkwall. The scale of the church is allied with King David I's foundation at Dunfermline and is seen to rival the Augustinian Cathedral-Priory at Carlisle.

The choir of the former Augustinian abbey church at Jedburgh has often been discussed in the literature on Romanesque architecture with specific reference to the giant cylindrical columns that rise through the main arcade to support the gallery arches (illus 1).[1] This adaptation of the Vitruvian giant order is most frequently associated with Romsey Abbey.[2] However, this association is problematical in that the giant cylindrical pier at Romsey is used only in the first bay of the nave, and almost certainly post-dates Jedburgh. If this is indeed the case then an alternative model for the Jedburgh giant order should be sought. Recently two candidates have been put forward. Richard Fawcett suggests that the architect of Jedburgh may have come from the Benedictine abbey church of Tewkesbury (Fawcett, *Jedburgh Abbey*, 15), while Richard Halsey sees Reading Abbey, which was founded by King Henry I in 1121, as the immediate source for Jedburgh (Halsey 1985, 28; 1988, 157). Consideration of this matter leads to a fuller examination of the original form of the Romanesque elevation at Jedburgh and its sources and, concomitantly, to a more complete understanding of its place in Romanesque architecture.

At first sight the link between Romsey and Jedburgh has a certain appeal on documentary and stylistic grounds. Jedburgh was founded in about 1138 by King David I, whose aunt, Christina, was a nun at Romsey in Hampshire, and whose sister, Matilda, had stayed at Romsey before her marriage to Henry I in 1100.[3] In addition, on the first pier of the south nave arcade (S1) at Romsey, the outer order of the main arcade towards the aisle springs from a capital set two full courses higher than the capitals that carry the inner order of the arch and the aisle ribs, while the outer order of the arch towards the nave springs from a capital set three-and-a-half courses higher than the soffit-roll capital (illus 2 & 3). An analogous principle is witnessed in the springing of the sub-arches from the central column of the arch from the south transept to the nave gallery (illus 4).

* 2 Cooper Court, Brantford, Ontario, Canada N3T 6G2
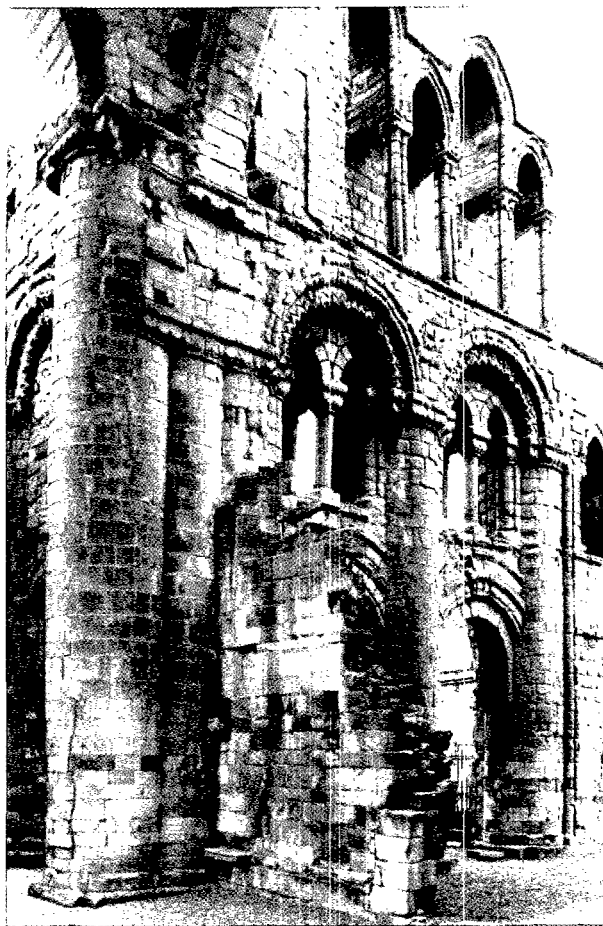
ILLUS 1   Jedburgh Abbey: choir, interior to north-east

Also in this bay, in its counterpart in the north transept, and from pier 2 westwards in the nave, the gallery enclosing arch is articulated as a giant order with nook shafts rising from the ground (illus 2). At Jedburgh this latter motif is combined with the giant cylindrical columns in the east responds of the choir and the outer responds of the arches from the transepts to the choir and nave aisles, while the different springing levels of separate orders of an arch at Jedburgh are expressed with capitals and imposts placed at different heights (illus 5–6). The detail is not identical in the two buildings but the design principles are the same. The combination of these unusual motifs suggests a link between Romsey and Jedburgh, but it is unlikely that this was direct.

   Traditionally the start of Romsey Abbey is placed around 1120 and work on the nave seems to have begun between 1140 and 1150.[4] Even if it is argued that the giant cylindrical piers were designed at the outset it would be hard to explain why these piers, rather than the compound piers of the choir, served as the model for Jedburgh.[5] Therefore, we may be virtually certain that Romsey is not the direct source for Jedburgh. At this point it makes good sense to examine Halsey's hypothesis that the giant order at Romsey and Jedburgh both reflect the influence of

ILLUS 2   Romsey Abbey (Hampshire): nave, interior to south-west

Reading Abbey. The case for the giant order at Reading is not conclusive but circumstantial evidence speaks strongly in its favour. The choir arcade piers were cylindrical with single attached shafts towards the aisles; a base of the south choir arcade is still *in situ* (Halsey, 1985, 27; 1988, 156). Halsey has demonstrated that the plan and dimensions of the Reading choir were similar to Tewkesbury and, given the use of the giant order with columnar piers in the Romanesque choir at Tewkesbury, it is likely that Reading had one too (Halsey 1985, 27–8, 34 n 86; 1988, 156–8). Other elements at Reading he compares with Gloucester (Halsey 1988, 156) and, seeing that both Romanesque Gloucester and Tewkesbury had high vaults, it is logical to suggest a high vault for the Reading choir.[6] This in turn would serve as a model for the choir of St Frideswide's at Oxford. Romsey does not have a high vault but it is possible that the diagonally placed vault responds in the south nave aisle there – in the western angles of bay S1, throughout bay S2 and in the south-east angle of bay S3 – reflect Reading. Buckler recorded a diagonally placed vault respond in the south-west angle of the Founder's Chapel off the south transept at Reading Abbey.[7] The detail is
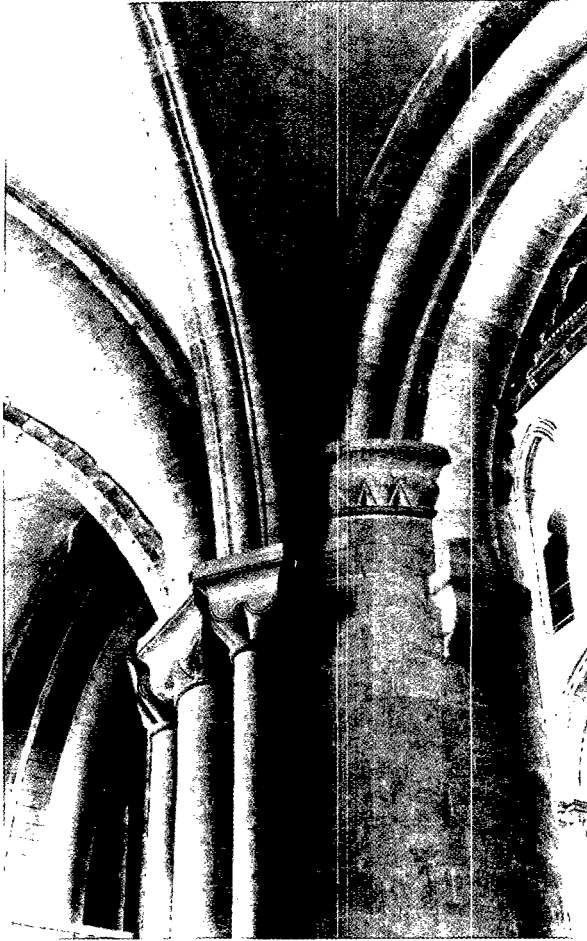
ILLUS 3   Romsey Abbey (Hampshire): nave, detail pier S1 from south-east

different from that at Romsey but diagonally placed vault responds are sufficiently unusual in English Romanesque architecture to suggest that the two works may be linked.[8]

The Reading/Jedburgh connection seems to be confirmed by the form of the crossing piers. The crossing piers at Reading were elongated on the east/west axis in the manner of Tewkesbury but, unlike Tewkesbury, they had semi-cylindrical terminations to both the east and west ends.[9] This unusual design – otherwise paralleled in England only at Southwell Minster – seems to supply the inspiration for the singular arrangement at Jedburgh. The design of the Jedburgh crossing piers evolves from Reading to create a fusion between four unequally sized cylinders: three towards the main span and one to the aisle (illus 1 & 6). To allow the choir stalls to be set back as far as possible within the crossing area, and at the same time to continue the curved section of the choir piers, the central section of the eastern crossing piers was finished with a segmental section rather than a flat area of wall as at Reading.[10] The Reading piers are known only in plan and it is possible that a segmental section, analogous to the middle section of the Jedburgh pier,

ILLUS 4   Romsey Abbey (Hampshire): south transept, elevation
to south nave aisle and gallery

might have been corbelled out above the choir stalls.[11] In this connection it is interesting that in Winchester Cathedral a segmental central section flanked by half-shafts articulate the crossing piers towards the main span (illus 7).

Immediately to the east of the north springer of the eastern crossing arch at Jedburgh there projects a somewhat weathered angled corbel which is framed above and to the west with a simple moulding (illus 1 & 8). This moulding almost touches the six chevroned voussoirs of the soffit of the crossing arch. Above this the arch is of 15th-century date. The angled corbel and its top moulding continue the lines of the capitals and abaci of the east respond of the northern crossing arch which suggests that they are congruous. The angled placement of the corbel may also be associated with the angled vault-rib supports at Romsey and Reading. But even more specific parallels are with the choir, crossing and transepts of Lindisfarne Priory (illus 8 & 9). In each of these spaces at Lindisfarne the Romanesque high vault is carried on corbelled capitals which are angle-set. A similar use for the Jedburgh corbel would seem to be a distinct possibility. Each of the

ILLUS 5   Jedburgh Abbey: choir, interior elevation to south

Lindisfarne vault capitals has its main face set in the direction of the rib. Applying this to the Jedburgh corbel leads to a somewhat unexpected result. The face of the corbel to the choir is not set in the direction of the next pier along on the south side, but towards the next but one. Therefore, it is unlikely that the Jedburgh high vault was planned as quadripartite over single bays. Rather it would have been quadripartite or sexpartite over the double bay of the choir. In either case this would be a vault built on a square plan. A quadripartite vault over a double bay is unparalleled in British Romanesque architecture but it is a common feature of Imperial churches and their successors, such as Speyer Cathedral in Germany and the Mariakerk at Utrecht in the Netherlands.[12] The domical trajectory of these vaults results in the setting of the clerestory windows well above the gallery. This arrangement could not have existed at Jedburgh because the top of the Romanesque wall is defined by an arched corbel – of the same type as those on the east and west crossing piers – at the west end of the present clerestory, and this is too low for the Imperial design.

The choir clerestory at Jedburgh belongs to the Early Gothic remodelling but there is

ILLUS 6   Jedburgh Abbey: north choir aisle from north-east

evidence on the exterior at the west end of the north choir that speaks in favour of a Romanesque clerestory at the same level as the present one (illus 10). To the right (west) of the westernmost window there is a break in the regular coursing of the stonework which suggests that the masonry to the right of the break is not contemporary with the Early Gothic window. To the right of the break, the fourth course above the clerestory string is another string which continues for the length of one stone on to the east wall of the north transept. Seven courses higher up on the choir clerestory there is a similar string which also continues for a short distance on the adjacent transept wall. In the fourth and fifth courses above this there is the single Romanesque arched corbel at the very west end of the choir clerestory, and once again this ashlar continues on to the transept wall for about 0.3 m. Immediately above the arched corbel the vertical break continues to the top of the wall. The chamfered profile of the two upper string courses is simpler than the clerestory string and conforms happily to a Romanesque type.[13] Therefore, it is plausible to suggest that the two strings mark the base and springing point of a Romanesque arcade which should be associated with the sill and the arch springers of windows in the manner of the Romanesque clerestories of the cathedrals at Durham and at Kirkwall (illus 11). The continuation of these stringcourses at Jedburgh onto the east wall of the north transept suggests that a clerestory was also used there. This is confirmed by details on the interior of both the east and west walls of the north transept. On the east wall two vertical breaks on the inner plane of the clerestory wall indicate the central placement of a Romanesque clerestory window above the arches of the giant order (illus 12). The south jamb of this former window is opposite the stepped plain jamb of the former clerestory window on the west wall (illus 13), a form paralleled in the transepts of St Magnus Cathedral, Kirkwall (illus 13 & 14).

The reconstruction of this Romanesque clerestory in the choir of Jedburgh allows the

ILLUS 7   Winchester Cathedral, north-east crossing pier

equation of the planned high vault there with the two sexpartite vaults in British Romanesque architecture: in the easternmost bay of the choir at Lilleshall Priory (Shropshire) and in the chancel of the church at Tickencote (Rutland). Of these Tickencote is the more interesting in that the vault is constructed over an approximately square chancel, and its segmental diagonal ribs would be an appropriate design for the Jedburgh high vault (illus 15).

There remain two snags with the reconstruction of a Romanesque high stone vault in the Jedburgh choir. In the first place, although the second order of the eastern crossing arch is of 15th-century date, it is probable that a Romanesque second order originally sprang from the same point (illus 8). Therefore the crossing arch and rib springers would have overlapped. This may seem awkward but this very overlapping occurs in the south-west rib springers of the choir and north transept vaults at Lindisfarne (illus 9).[14] Secondly, the seven courses of ashlar above the angle-set corbel and to the west of the break with the present clerestory arcade appear to be Romanesque (illus 8). If this stonework belongs to the original fabric then the absence of any trace of the

ILLUS 8   Jedburgh Abbey, choir, north-west corbel

webbing of the Romanesque high vault is remarkable. The webbing of Romanesque vaults in Britain is usually bonded into the core of the wall; therefore in a ruinous state a former vault is marked by the arc of the vault web on the wall. This may suggest that the plan for the high vault over the Jedburgh choir was not executed or that it may have been constructed in wood in imitation of stone.[15] However, there are instances in English Romanesque buildings of a high-vault web simply being built against wall surfaces, as in the south transept at Tewkesbury Abbey, in Gloucestershire, and the nave at Pershore Abbey, in Worcestershire, where evidence that the vault was actually constructed is supplied by traces of fire damage.[16]

Although we shall never know whether or not the Jedburgh choir vault was constructed, either in wood or stone, at least the intention to erect a high vault in the choir raises the question of the architectural context of the scheme. Given the probability of a high vault in the choir of Reading Abbey and the other links between Jedburgh and Reading, the inspiration for the Jedburgh choir vault may have come from Reading. Reading was founded by King Henry I and it is reasonable to suggest that the anglophile King David was influenced by this work of his
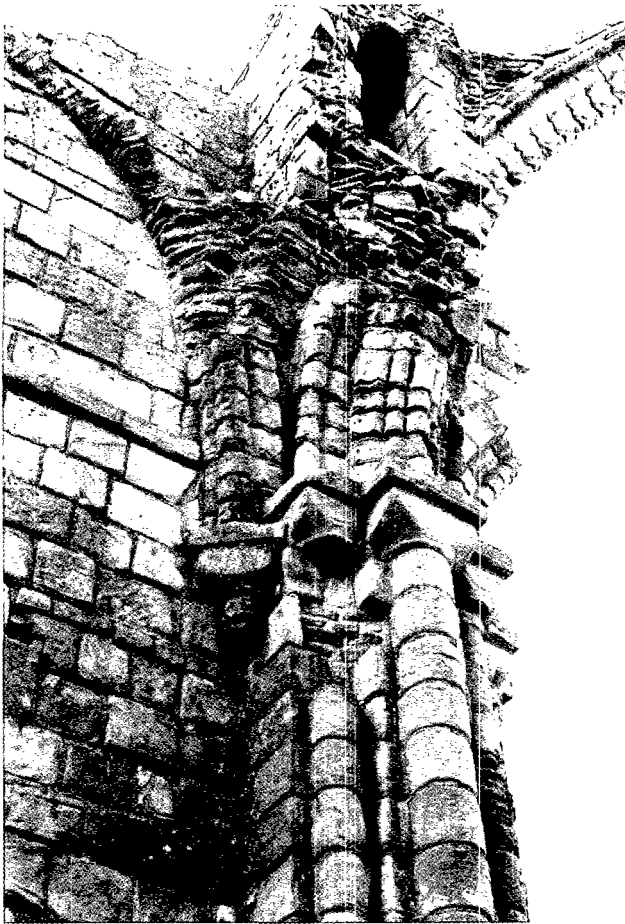
ILLUS 9   Lindisfarne Priory: choir, south-west vault corbel

counterpart south of the Border (Halsey 1985, 28; 1988, 157). But northern works are equally relevant. After their introduction in the main spans of Durham Cathedral, high rib-vaults are not generally associated with British Romanesque churches.[17] However, high vaults, especially in the eastern arms of major churches, are rather more common than has hitherto been believed.[18] Especially relevant for Jedburgh is the development in the north of England. Ante-dating Durham there is clear evidence from North Yorkshire for high groin-vaults over the eastern arm of Lastingham Priory, and it is likely that both Whitby and St Mary's Abbey at York also had high choir vaults.[19] Following Durham, Lindisfarne Priory was completely vaulted with ribs.[20] Like Lastingham, Whitby, and Lindisfarne, Jedburgh was a refoundation of an 'Early Christian' site, and in keeping with them and the great northern cathedral of Durham, Jedburgh was planned for a vaulted choir.[21]

The scale on which the Romanesque abbey church at Jedburgh was conceived is significant in the context of the development of Scottish architecture in the 12th century. On the one hand, it
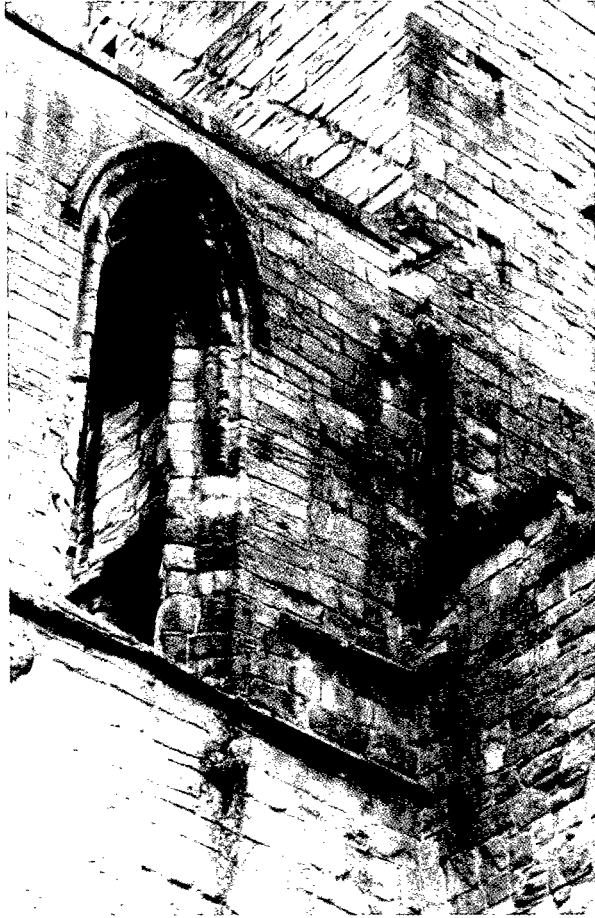
ILLUS 10   Jedburgh Abbey (exterior): north choir clerestory

is much larger than the earlier royal foundation of St Rule's at St Andrews. On the other, it is comparable with both Dunfermline Abbey, founded by David I in 1128, and St Magnus Cathedral, Kirkwall, founded by Earl Rognvald in 1137. While Jedburgh is still small by comparison with the huge English abbeys and cathedrals such as St Albans, Winchester and Durham, which were conceived on the same vast scale as the great Early Christian basilicas of Rome,[22] it is on a par with two later English foundations, Southwell and Carlisle, which King David may well have wished to rival. Southwell Minster was begun between 1108 and 1114 by Thurstan, Archbishop of York, who was keen to secure the obedience of the Scottish church.[23] In consideration of Thurstan's Scottish ambitions, the Augustinian priory at Carlisle, which had been founded by Henry I after his visit to the city in 1122, was elevated to cathedral status in 1133 (Bulman, 1937; Dickinson, 1946). In rivalling the scale of Thurstan's major foundation, and the royal Carlisle cathedral-priory, King David made a clear architectural proclamation of Scotland's ability to administer its own ecclesiastical affairs.
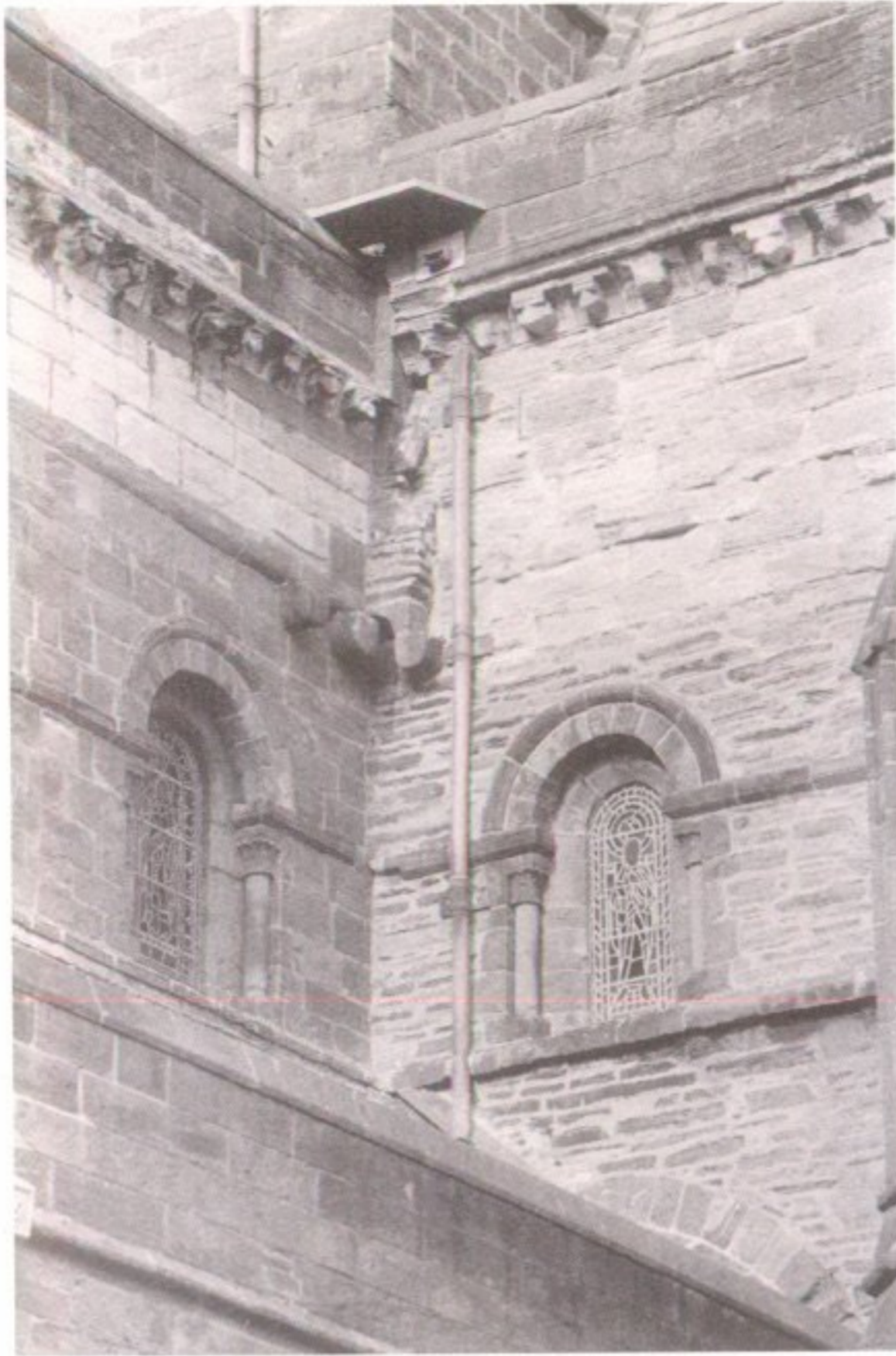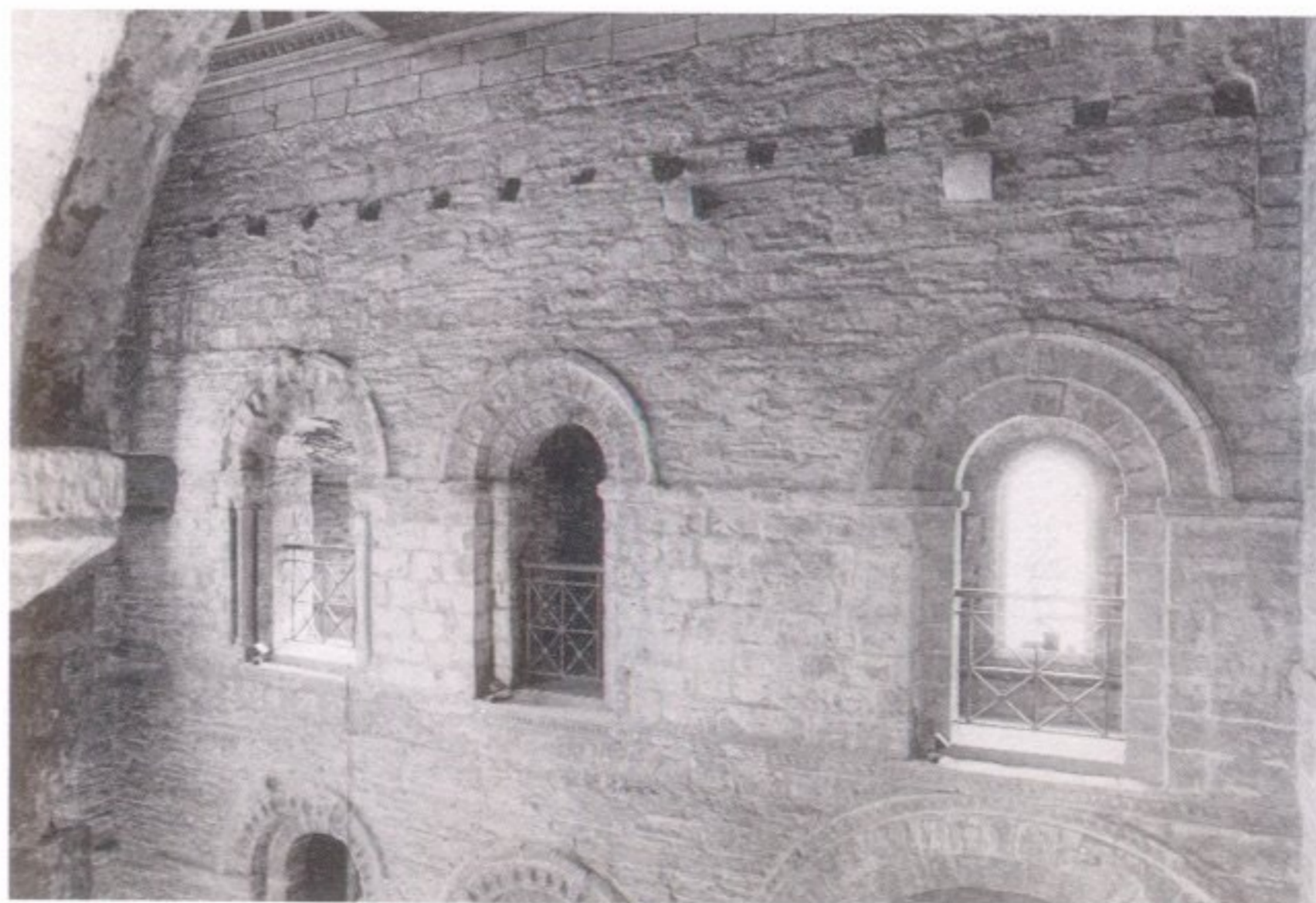
ILLUS 11   St Magnus Cathedral, Kirkwall:
            north choir/north transept clerestory
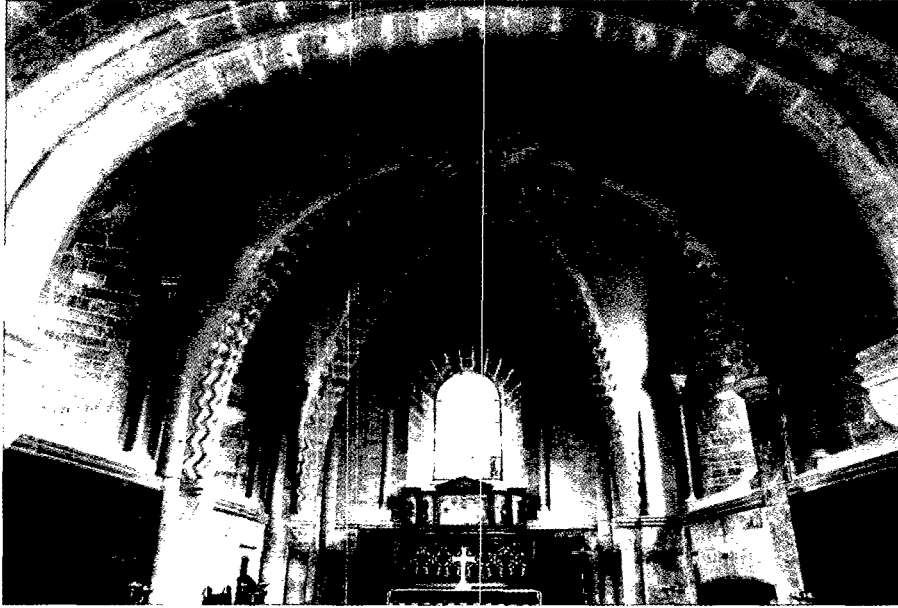

ILLUS 12   Jedburgh Abbey (interior): north transept, east gallery and clerestory

ILLUS 13 Jedburgh Abbey (interior): north transept, west gallery and clerestory

ILLUS 14 St Magnus Cathedral, Kirkwall (interior): north transept, east clerestory

ILLUS 15   Tickencote (Rutland): choir vault

Other aspects of the design of Jedburgh are significant in the evolution of Romanesque architecture in Britain. The multiple mouldings (illus 1 & 5) on the front of the choir arcade arches and the arches from the transepts to the choir aisles (especially the inclusion of what seems to be a second hood-mould), recall Anglo-Saxon stripwork as on the west doorway of Earls Barton tower (Fernie, 1983, fig 87) and the chancel arch at Wittering (Northamptonshire).[24]

The grouping of shaft segments is characteristic of Anglo-Saxon building, as in the crossing and nave arcade piers at Great Paxton (Huntingdonshire), and the blind arcades on the exterior of the choir at Bradford-on-Avon (Wiltshire: Fernie, 1983, figs 78 & 86). But the scale of the Jedburgh piers is much greater. The only pre-Conquest works that begin to approach the monumentality of Jedburgh are the semi-cylindrical responds of the apse arches at Deerhurst (Gloucestershire) and at Worth (Sussex: Fernie, 1983, fig 90). It is as if we have the fusion of the two concepts at Jedburgh. Within a Romanesque context other than in crossing piers, the design does have parallels in its concept and scale. The elongated quatrefoil piers of the western bays of the nave of Tutbury Priory (Staffordshire: illus 16) seem to be the closest, but reference may also be made to the large quatrefoil piers in the crypt of York Minster and in the nave of Rochester Cathedral in Kent.[25]

The square-ended choir aisles presage Early Gothic developments (as at St Andrews Cathedral-Priory) but a possible contemporary parallel is found in the choir aisles at St Magnus Cathedral, Kirkwall.[26] Like St Magnus, the choir aisles at Jedburgh are rib-vaulted. The south aisle vault is largely rebuilt but the Romanesque ribs are preserved from north-east to south-west in the western bay, and from centre to north-east and north-west in the eastern bay. The rib profile has a torus roll and single hollows on the sides of the rib. This is different from the north aisle rib which has the same torus roll but with plain sides to the rib. There is no chronological significance to the difference; rather it conforms to an aesthetic in which variety in detail was highly esteemed.[27]

ILLUS 16   Tutbury (Staffordshire): north nave arcade pier

Differences in detail are also to be seen in the arches in the transepts, but here an alternative explanation of the diversity seems appropriate. The mouldings of the arches to the aisles and galleries of the choir repeat those in the choir elevation (illus 1 & 12). By contrast the arches to the nave aisles and galleries are devoid of ornament and have just simple stepped orders (illus 13). Such differences do not necessarily indicate a change of plan. Instead, the richer decoration on the east side of the transept is visually connected with the adornment of the sanctuary in the eastern arm of the church. The west wall has no visual association with the sanctuary and therefore is less richly decorated. This east/west division occurs in the transepts of Durham Cathedral where the richly moulded arches of the eastern side continue the treatment of the choir while the west side of the transept is plain.[28] At Jedburgh the principle is analogous, although here the second bay of the east side of the transepts is plain. Similarly the original eastern crossing arch at Jedburgh was carved with chevron ornament while the arch to the north transept is unadorned.

In sum, the Romanesque abbey church of Jedburgh holds an important place in the evolution

of Scottish medieval architecture. Like Dunfermline Abbey, also founded by King David, it was conceived on a far grander scale than earlier Romanesque churches in Scotland such as St Rule's at St Andrews. While its size does not compete with the largest Anglo-Norman churches in England, it does rival the collegiate foundation of Archbishop Thurstan of York at Southwell, and the newly elevated Carlisle Cathedral. The motif of the giant order was probably inspired by the royal foundation of Reading Abbey, and the crossing piers and vaults may also reflect that source. In incorporating a choir high-vault, and in the richness and variety of decoration, Jedburgh Abbey was up to date with the latest developments in the architecture of the highest level of patronage south of the Border. In this regard it paved the way for the revolutionary monumental reconstruction of St Andrews Cathedral-Priory after 1160.

NOTES

1   MacGibbon & Ross 1896, 401–3; Clapha 1934, 97n; Clapham 1949, 12, 13; Boase 1953, 152–3; RCAHMS 1956, 203; Webb 1956, 32–3; Fawcett 1985, 32; Halsey 1985, 28; Sharret, 1985, 243–51; Fawcett, *Jedburgh Abbey*, 14–15; Cruden 1986, 108–9.
2   On the giant order, see Halsey 1985, 20–9. The Romsey/Jedburgh connection is discussed by MacGibbon & Ross 1896, 401–3; Boase 1953, 153; Fawcett 1985, 32; Halsey 1985, 28; Sharret, 1985, 250; Fawcett, *Jedburgh Abbey*, 14–15.
3   Cowan & Easson 1976, 92.
4   There is no evidence to support the contention that the capitals of the north crossing arch were raised eight (RCAHMS 1956, 201) or 10 (Cruden 1986, 105) courses in the Romanesque period.
5   There are no documentary dates that apply directly to the building. The starting date has been expressed with reference to the sculpture of the capitals which has been allied with the crypt capitals at Canterbury, formerly dated around 1115. It is now generally accepted that the Canterbury crypt capitals are contemporary with the building and therefore should be dated after 1096. Any temptation to move the starting date of Romsey earlier is precluded by a number of details. On the main arcade of the choir at Romsey the channelled chevron and the pasta-like filled roundels on the hood derive from the arcade of the ringing chamber of Winchester Cathedral which post-dates the collapse in 1107 of the first Anglo-Norman crossing tower. Similarly, the profile of the ribs of the vault of the choir-aisle, which has a relatively delicate soffit roll flanked by narrow hollow rolls, relates to the ribs introduced in the Winchester Cathedral transept aisles after the fall of the tower in 1107. This profile also appears in the 'sacristy' to the south of the south transept of St Cross Hospital church, in Winchester, which was founded by Bishop Henry of Blois in 1136. The volute capital with fanned reed-like leaves in the centre is closely paralleled to the south soffit capital of the chancel arch of Porchester, a former Augustinian priory founded by Henry I in 1133. A capital in the second bay of the south choir gallery has a recessed design on the face with an upper rectangle above a central semicircle, as in some capitals from the cloister of Reading Abbey which was founded by Henry I in 1121. At the other end of the dating scale, the details of the capitals of bay N5 in the main arcade relate intimately to St Cross probably started after Henry of Blois' return from exile at Cluny in 1158 and significantly completed before his death in 1171. Thus, even allowing for a quicker progression on the eastern arm than in the transepts and nave, a date for the giant cylindrical piers before 1140 seems unlikely and the traditional date of c 1150 suggested by Peers may not be far off the mark.
6   On the former Romanesque high vaults at Gloucester, see Thurlby 1985b, 44–8; Wilson 1985, 52–83.
7   J C Buckler drawings, British Library Add. Ms 36400A.
8   Elsewhere in England and Wales, diagonally set Romanesque rib supports occur in the crypts of St Mary at Warwick, St Nicholas' Priory at Exeter, and Berkswell (Warwickshire); in the presbytery, crossing and transepts at Lindisfarne Priory; in the chancels at Avening (Gloucestershire), Barnwell (Cambridgeshire), Elkstone (Gloucestershire), Ewenny (Glamorganshire), Heddon-on-the-Wall (Northumberland), Rudford (Gloucestershire), Avington (Berkshire) and Beaudesert (Warwickshire); in the sacristy at Hemel Hempstead (Hertfordshire); in the south bay of the west range at Rochester

Cathedral (Kent); in the transept chapels at Buildwas Abbey (Shropshire); in the chapter house at Much Wenlock Priory (Shropshire) and St Augustine's (now the cathedral) in Bristol; under the tower at Castle Rising (Norfolk) and Sidbury (Devon); and in the gatehouse of Castle Rising Castle.

On the diagonal placement of supports for vault ribs see Frankl 1960, 792–826; Frankl 1962, 10–14; Bony 1976; Clark 1977; Clark 1979.

9   J C Buckler drawings, British Library Add. Ms 36400A, fols. 1, 3 & 4. The west end of the south-west crossing pier is still *in situ*.

10   On the use of columnar piers in choirs of English Romanesque churches, see Hoey 1989, 264–7. Fernie (1977), observes that the apse chord piers at Norwich have a cylindrical section like the apse piers so as not to disrupt the liturgical space, and that this section may also have been used for the main choir piers and the respond on the east crossing piers; see also Fernie 1993a, 67.

11   Buckler, British Library, Add Ms 36400B, fol. 10v considers it possible that 'the massive lengthy (crossing) piers gave support to corbels in the manner, if not in the precise figure, of those examples so much favoured by the Cistercian builders.'

12   On Speyer Cathedral, see Kubach 1974. For the Mariakerk at Utrecht, see Schwartz & Bok 1990, 130–47, with excellent illustrations.

13   Fawcett (1995, 164) observes that the two upper stringcourses do not have a quirk between the vertical and chamfered faces unlike the other Romanesque stringcourses in the choir. This leads him to suggest that the Romanesque clerestory was not part of the original campaign, a claim he supports with reference to the east clerestory of the south transept where the chalice capital precludes a date before 1160. The omission of the quirk in the abacus of the north-west crossing capitals at Jedburgh (illus 13) leads one to question whether the absence or presence is sufficient evidence for separate campaigns of construction, a point emphasised by the juxtaposition of unquirked, and double and single quirked-chamfered abaci through the south-east angles of pier 7 of the Romanesque north nave arcade at St Albans Abbey. The inclusion of the chalice capital in the east clerestory of the south transept at Jedburgh may be explained by its construction some time after the completion of the choir; analogous delay in the completion of the clerestory is witnessed in the nave at Selby and Romsey.

14   A more extreme version was intended in the west springers of the choir vault at Leonard Stanley (Gloucestershire). Analogous overlapping of a rib and the outer order of an arch is witnessed in the arch from the south nave aisle to the south transept at St Andrews Cathedral.

15   Thirteenth-century wooden rib vaults still exist in the presbytery of St Albans Abbey and the nave of Warmington (Northamptonshire). Sexpartite wooden rib-vaults were constructed by Scott over the late 12th-century transepts of St David's Cathedral (Scott 1863, 93–4). Although no Romanesque wooden vaults are extant their former existence may be surmised; the clearest evidence is in the western bays of the nave aisles at Tewkesbury Abbey in the form of corbels at the springing point of the former quadrant vaults.

16   Thurlby 1985a. On the behaviour of vault webs: Alexander, Mark & Abel 1977; Mark 1983, esp. 112.

17   On the Durham vaults, see Bilson 1922; Fernie 1993, 152–5; Thurlby 1993a; 1993b; 1993c; 1994. Representative of the perceptions of English architecture after Durham is Kidson 1979, 52; 'Although the vaults of Durham are its most celebrated feature, it is rather disconcerting to find that their immediate influence on English architecture was well nigh negligible. This is all the more surprising because the theme of ribbed vaulting was at once taken up seriously in Normandy, and transmitted from there to the adjacent parts of France; but in England, apart from an isolated case, such as the vaulting of the nave of Lincoln in the 1140s, it was not until well into the second half of the twelfth century that it became at all common.'

18   Halsey 1988, 159. In major English Romanesque cathedrals and abbeys the case for high vaults can be made for the following: Lincoln Cathedral, choir (1072–92), nave (after 1141); St Albans Abbey, choir (1077–88); Tewkesbury Abbey, choir, transept and nave barrels; Gloucester (Abbey) Cathedral, choir barrel or groin, ribbed nave; Pershore Abbey, choir, transept and nave barrels; Hereford Cathedral, choir groined or ribbed; Chepstow Priory, nave groined or ribbed; Exeter Cathedral, ribbed choir; Old Sarum, ribbed choir; Lindisfarne Priory, ribbed choir, crossing, transepts and nave; Peterborough Cathedral, apse and intended ribs in nave; Kirkstall Abbey, choir ribbed; Malmesbury Abbey, ribbed

choir and transepts; Lilleshall Abbey, ribbed choir and transepts; Oxford Cathedral, ribbed choir and transepts.

19   The present high vaults at Lastingham are the product of J L Pearson's restoration of 1879, but a citation and faculty of 1877 refer to the proposal to 'restore the ancient groining of the nave (ie square bay to the west of the presbytery) in place of the present plaster ceiling', and to 'restore the ancient barrel vaulting of the chancel including the Apsidal East end'. The language is precise. The plans are to 'rebuild' the clerestory walls and 'insert new windows.' The chancel arch is to be taken down and replaced by a new one. The wording 'to restore the ancient groining of the nave,' and 'the ancient barrel vaulting of the chancel' should therefore be taken at face value to mean that evidence for these vaults existed prior to Pearson's restoration (see Gem & Thurlby 1995).

20   McAleer (1986, 51) contends that the late 18th-century watercolours, sketches and sepia wash views of the Lindisfarne nave, along with the existing fabric, provide 'incontrovertible evidence' that the nave was groin-vaulted, and he has maintained this opinion in his recent publication on the topic (McAleer 1994). This is not the case. To rely on the studio products of late 18th-century artists as primary evidence is methodologically unsafe. The sketches are not precise representations of groins but render the vault springers with a few deft strokes which read more like the flat face on the diagonal that is still preserved *in situ* for the north-west high-vault springer. This is exactly the same as the evidence left by the fallen ribs in the north nave aisle vault. Parallels with vault webs left after fallen ribs in the keep at Middleham Castle (North Yorkshire), transept chapels at Buildwas Abbey, and the undercrofts of the infirmary and the Abbot's Lodging at Netley Abbey (Hampshire), further suggest that the Lindisfarne springer should be read in connection with a high rib vault.

21   Ecgred, Bishop of Lindisfarne (836–46), gave two villas at Geddeworde with their possessions to Lindisfarne (Arnold 1882, 52–3), and built a church at Jedburgh (Pertz 1866, 506).

22   On relationships between Anglo-Norman great churches and Early Christian basilicas in Rome, see Gem 1983; Fernie 1979; 1993, 135–6; Thurlby 1994. For an excellent discussion of the scale of St Magnus Cathedral, Kirkwall, see Cambridge 1988, 122–4.

23   On Southwell, see Thompson 1911. It seems probable that the Romanesque presbytery at Jedburgh had a square east end like Romanesque Southwell (Fawcett 1995, 160).

24   On the continuity and/or revival of Anglo-Saxon motifs after the Conquest, see in particular Bony 1981; Fernie 1986; Thurlby 1993a; Thurlby 1994.

25   For the York crypt piers, see Browne 1847, pls XVII & XIX.

26   Fawcett (1988, 89) suggests that the Romanesque choir aisles at Kirkwall did not end in enclosed apses, 'since the decorative string courses on the eastern respond of the south arcade extend further east than would be expected if there were to be sufficient space for an enclosed apse.'

27   Different rib profiles used in single building campaigns are used at Stow (Lincs) chancel; Oxford, St Peter in the East, chancel; Bristol, St Augustine's Abbey (now Cathedral), chapter house and gatehouse; Winchester, St Cross, choir and aisles; Dalmeny (Midlothian), choir and apse. On design variety in general, see Thurlby & Kusaba 1991.

28   Bony 1954, 44–5; Thurlby, 1993a, figs. 9, 18–21, 25.

ACKNOWLEDGEMENTS

REFERENCES

Alexander, K D, Mark, R & Abel, J F 1977 'The Structural Behaviour of Medieval Ribbed Vaulting', *J Soc Architectural Historians*, 36 (1977), 241–51.
Arnold, T (ed) 1882 *Symeonis Monachi Opera Omnia*, Rolls Series, I.

Bilson, J 1922 'Durham Cathedral: The chronology of its Vaults,' *Archaeol J*, 74 (1922), 101–60.

Boase, T S R 1953 *English Art 1100–1216*. Oxford.

Bony, J 1954 'Le project premier de Durham: Voutement partiel ou voutement total?', in *Urbanisme et architecture. Etudes ecrites et publiees en l'honneur de Pierre Lavedan*, Paris, 41–9.

Bony, J 1976 'Diagonality and Centrality in Early Rib-Vaulted Architectures', *Gesta*, 15 (1976), 15–25.

Bony, J 1981 'Durham et la tradition saxonne', *Etudes d'art medievale offertes a Louis Grodecki*, Paris, 79–85.

Browne, J 1847 *History of the Metropolitan Church of St Peter, York*. York.

Bulman, C G 1937 'The Norman Priory Church at Carlisle', *Trans Cumberland Westmorland Antiq Archaeol Soc*, 2 ser 37 (1937), 56–66.

Cambridge, E 1988 'The Architectural Context of the Romanesque Cathedral at Kirkwall', *in* Crawford 1988, 111–26.

Clapham, A W 1934 *English Romanesque Architecture After the Conquest*. Oxford.

Clapham, A W 1949 'The Form of the early Choir of Tewkesbury and its Significance', *Archaeol J*, 106 (1949), Supplement, 10–15.

Clark, W W 1977 'The Nave Vaults of Noyon Cathedral', *J Soc Architectural Historians*, 36 (1977), 30–3.

Clark, W W 1979 'Spatial Innovations in the Chevet of Saint-Germain-des-Pres', *J Soc Architectural Historians*, 38 (1979), 348–65.

Cowan, I B & Easson, D E 1976 *Medieval Religious Houses: Scotland*. 2nd edn. London.

Crawford, B E 1988 *St Magnus Cathedral and Orkney's Twelfth-Century Renaissance*. Aberdeen.

Cruden, S 1986 *Scottish Medieval Churches*. Edinburgh.

Dickinson, J C 1946 'The Origins of the Cathedral of Carlisle', *Trans Cumberland Westmorland Antiq Archaeol Society*, 2 ser, 46, 134–43.

Fawcett, R 1985 *Scottish Medieval Architecture*. Edinburgh.

Fawcett, R 1988 'Kirkwall Cathedral: an Architectural Analysis', *in* Crawford 1988, 88–110.

Fawcett, R *Jedburgh Abbey* (Historic Scotland guidebook). Edinburgh, nd.

Fawcett, R 1995 'The architectural development of the Abbey church', *in* Lewis, J H & Ewart, G J *Jedburgh Abbey: the archaeology and architecture of a Border abbey (Soc Antiq Scot Monogr Ser*, 10), Edinburgh, 159–74.

Fernie, E 1977 'The Romanesque Piers of Norwich Cathedral', *Norfolk Archaeol*, 36 (1977), 383–6.

Fernie, E 1979 'Observations on the Norman Plan of Ely Cathedral', *Medieval Art and Architecture at Ely Cathedral: Brit Archaeol Assoc Conference Trans*, 2, 1–7.

Fernie, E 1983 *The Architecture of the Anglo-Saxons*. London.

Fernie, E 1986 'The Effect of the Conquest on Norman Architectural Patronage', *Anglo-Norman Studies*, 9 (1986), 71–86.

Fernie, E 1993a *An Architectural History of Norwich Cathedral*. Oxford.

Fernie, E 1993b 'Design principles of early medieval architecture as exemplified at Durham Cathedral', *in* Jackson 1993, 146–56.

Frankl, P 1960 *The Gothic: Literary Sources and Interpretations through Eight Centuries*. Princeton.

Frankl, P 1962 *Gothic Architecture*. Harmondsworth.

Gem, R 1983 'The Romanesque Cathedral of Winchester: Patron and Design in the Eleventh Century', *Medieval Art and Architecture at Winchester Cathedral: Brit Archaeol Assoc Conference Trans*, (6), 1–12.

Gem, R & Thurlby, M 1995 ' The Early Monastic Church of Lastingham', *Medieval Art and Architecture in Yorkshire: Brit Archaeol Assoc Conference Trans*, (16), 31–9.

Halsey, R 1985 'Tewkesbury Abbey: some recent observations', *Medieval Art and Architecture at Gloucester and Tewkesbury: Brit Archaeol Assoc Conference Trans*, (7), 16–35.

Halsey, R 1988 'The 12th-Century Church of St Frideswide's Priory', *Oxoniensia*, 55 (1988), 115–67.

Hoey, L 1989 'Pier Form and vertical Wall Articulation in English Romanesque Architecture', *J Soc Architectural Historians*, 48 (1989), 258–83.

Jackson, M J 1993 *Engineering a Cathedral*. London.

Kidson, P 1979 *A History of English Architecture*. Harmondsworth.

Kubach, H E 1974 *Der Dom zu Speyer*. Darmstadt.

McAleer, J P 1986 'The Upper Nave Elevation and High Vaults of Lindisfarne Priory', *Durham Archaeol J*, 2 (1986), 43–53.

McAleer, J P 1994 'Encore Lindisfarne Priory and the Problem of its Nave Vaults', *Antiq J*, 74 (1994), 169–210.

MacGibbon, D & Ross, T 1896 *The Ecclesiastical Architecture of Scotland*, I. Edinburgh.

Mark, R 1983 *Experiments in Gothic Structure*. Cambridge (Mass.).

Pertz, G H (ed) 1866 'Annales Lindisfarnenses et Dunelmenses' (AD 532–993), *in Monumenta Germaniae Historica, Scriptorum*, 19.

RCAHMS 1956 Royal Commission on the Ancient and Historical Monuments of Scotland *Inventory of the Monuments of Roxburghshire*, vol 1. Edinburgh.

Schwartz, G & Bok, M J 1990 *Pieter Saenredam: The Painter and His Time*. New York.

Scott, G G 1863 'The Restoration of St David's Cathedral', *Cambrian J* (1863), 73–100.

Sharret, F & Sharret, P 1985 *Ecosse Romane*. La Pierre-qui-Vire (Yonne).

Thompson, A H 1911 'Southwell Minster', *Thoroton Soc Trans*, 15 (1911), 15–62.

Thurlby, M 1985a 'The Romanesque Elevations of Tewkesbury and Pershore', *J Society Architectural Historians*, 44 (1985), 5–17.

Thurlby, M 1985b 'The Elevations of the Romanesque Abbey Churches of St Mary at Tewkesbury and St Peter at Gloucester', *Medieval Art and Architecture at Gloucester and Tewkesbury: Brit Archaeol Assoc Conference Transactions*, (7), 36–51.

Thurlby, M 1993a 'The Building of the Cathedral: the Romanesque and Early Gothic Fabric', *in* Pocock, D (ed) *Durham Cathedral: A Celebration*. Durham, 15–35.

Thurlby, M 1993b 'The Romanesque high vaults of Durham Cathedral', *in* Jackson 1993, 43–63.

Thurlby, M 1993c 'The purpose of the rib in the Romanesque vaults of Durham Cathedral', *in* Jackson 1993, 64–76.

Thurlby, M 1994 'The Roles of the Patron and the Master Mason in the First design of the Romanesque Cathedral of Durham,' *in* Rollason, D, Harvey, M & Prestwich, M (eds) *Anglo Norman Durham*, Woodbridge, 161–84.

Thurlby, M & Kusaba, Y 1991 'The Nave of Saint Andrew at Steyning: A Study of Variety of Design in Twelfth-Century Architecture in Britain', *Gesta*, 30 (1991), 163–75.

Webb, G 1956 *Architecture in Britain: The Middle Ages*. Harmondsworth.

Wilson, C 1985 'Abbot Serlo's Church at Gloucester (1089–1100): Its Place in Romanesque Architecture', *Medieval Art and Architecture at Gloucester and Tewkesbury: Brit Archaeol Assoc Conference Trans* (7), 52–83.