V.—TREFOIL REAR-ARCHES.

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INTRODUCTION.

The subject of these notes is one of the lesser details associated with certain thirteenth century buildings in this district which, so far as I know, has not previously been noticed nor has any attempt been made to delimit the area of its occurrence, to estimate the period of its prevalence, or to discover the position and personality of its designer. Such points are sometimes of historical value. Now that the larger problems of mediæval archæology have been solved, or shelved, more attention may be given to matters which, though at first sight of small importance, may recall a forgotten artist, enable ancient monuments to be more exactly dated, and may even illuminate such vexed questions as whether episcopal, monastic or secular influence had most weight in the development of early English mediæval architecture.

To begin at the beginning, a rear-arch or back-arch is that part of an arched window or door head lying behind or to the *rear* of the outer or face arch seen by an observer from outside. The term is most commonly applied in cases where the window glass plane lies in the outer half of the wall, as in the windows of an ordinary dwelling house. The first stone window openings with arched heads in the north of England seem to have been

made for the very mixed race of colonists whom we conveniently call " the Romans "—Roman by rule if not by birth—and for reasons of climate, economy and protection from thieves these openings were made narrow at the outside and the jambs or scuntions inside were splayed, i.e. spread farther apart from each other the farther they were from the glazing plane, in order to diffuse light over the interior. The face arch was a flat stone set on edge with a semi-circular opening cut out of it; the rear-arch carried the splaying of the jambs round the semi-circular opening and was cut out of a series of slabs on edge or was built of rough stones covered with plaster. This simple form of window was used in the Tyne valley and other settled parts of Northumberland and Durham from the " Roman " occupation till the " Norman " conquest. During the period of Greater Northumbria, missionaries of the Church of Rome spread the Roman building tradition through Pictland from the Forth to the " Pechtland " Firth and through Dalriadic Scotland to Ireland. It is said that neither Scots, Picts nor Angles (all heathen or, worse, heretics!) had experience in hewn stone building till they visited England. The Scots and their Hibernian subjects, like the pre-Roman Britons, were experts in dry walling and in such " wattle and daub " work as may still be seen in villages of the north of France; the Angles, characteristically attacking their problem with a hatchet, favoured log cabin construction, but soon learnt to encourage the use of stone and stucco, at any rate for church building. The Picts proved apt pupils, and though in form their cross slabs follow the precedent of such Roman tombstones as the standard-bearer's monument at Hexham, and in decoration show the influence of the Lindisfarne gospels, their architecture soon gained a local character of its own, marked particularly by use of astronomical symbols as decoration—probably as records of date—and by the erection of lofty towers—possibly in part for astronomical observation.

The " Norman " conquest revolutionized English

methods of building so far as important structures were concerned, but in what is sometimes called " vernacular " work the simple round-topped window of slender proportions persisted (like the English[1] square-ended sanctuary) through all, and at the beginning of the thirteenth century exchanged the round opening in its head for a pointed arched one. But continuation of the scuntion splay round a pointed head produced a different effect from the same treatment applied to a semi-circle.[2] The splay now ran high above the window opening[3] and became quite unpractical for use in aisle walls and clearstories where it was desirable to save height of wall and yet obtain light from as high up as possible.

The problem had already been solved for the large semi-circular-headed clearstory windows under the choir vault at Durham by the invention of the " drop arch," i.e. the curve of the rear-arch was described about a centre dropped below the level of that of the face arch and the curved *intrados* or under side of the rear-arch

[1] Also Irish and Visigothic Spanish.
[2] R. and J. Brandon, *An Analysis of Gothic Architecture* I, 16.
[3] e.g., at Medomsley in county Durham, and the east end of Lanercost priory. (See fig. I, II.)

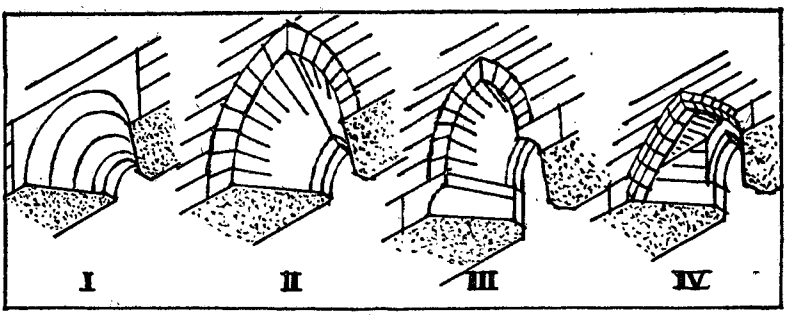

Fig. I.
Diagrams of rear-arches in a 3 feet thick wall, 1 foot 6 inches external and 5 feet internal opening.
I. Anglo-roman. III. Trefoil.
II. Plain concentric pointed. IV. Drop arch with rib.

interpenetrated the scuntion splays as if they had been cut for its insertion. Apart from the use of flat rear lintels this "drop arch" solution was accepted in most parts of Britain; the inner face of the rear-arch was commonly supported on a champfered or moulded stone rib (space between rib and face arch filled in with a rubble vault) and sometimes the highest point of the drop arch was actually lower than the daylight of the window head.[4] The drop arch rib's outline took many forms: segmental, segmental-pointed, semi-circular, trefoiled,[5] but did not vary in construction till the fifteenth century, when the general adoption of thinner walls glazed on their centre plane rendered the drop arch obsolete.

I said this happened in most parts of the country; in the end it did in all, but at least two obstinate individualists insisted on discovering solutions of their own. One of them designed the church of St. Fillan at Aberdour in Fife, consecrated in 1178.[6] His plan was to make face and rear-arches concentric (the head semi-circular) with a splay of 6 inches, and jambs each with a splay of 6 inches at the top widening out to no less than 1 foot 10 inches at the sill. The effect was not altogether successful and it was not repeated so far as we can tell. The other lover of originality designed the windows which are our present subject of study. Like his Aberdour confrère he gave the rear-arch a moderate splay,[7] made it concentric with the face arch (usually a pointed one) and gave the jambs wider splays which did not taper towards the head but joined on to the rear-arch splay by means of concave brackets or springers, thus giving the rear-arch in elevation a trefoil or cusped outline. There is no space here to recount how the trefoil arch form spread from the cliffs of Bamian[8] eastwards to Cashmere

[4] e.g., St. Michael, Houghton-le-Spring.
[5] Particularly in Ireland. See A. C. Champneys, *Irish Ecclesiastical Architecture.*
[6] J. Russell Walker, *Pre-Reformation Churches of Fife*, p. 30.
[7] Or no splay at all, as at Hexham priory and Whalton.
[8] W. Simpson, *R.I.B.A. Journal*, 3rd ser., I, 533.

and westwards to the Atlantic; in the twelfth century it reached England and from mixed motives of politics, religion and, later, loyalty to a king who was third of his name,[9] it became very fashionable in the thirteenth. It was natural that our unknown designer should have it in his mind, and at a time when economy made mouldings and carving unpopular he might easily be led to adopt a trefoil outline as a method of giving character to rear-arch openings otherwise severely plain, even if its obvious advantages in reducing height had not already attracted him to it.

So purely personal[10] a detail is not likely to have emerged from that vague anonymous body of repetitions called "local tradition"; and its use almost contemporaneously in places so wide apart as those now to be enumerated suggests that its inventor was not an ordinary workman, still less a "soviet," but was an *architector* or *ingeniator* having an extensive practice in the north of England,[11] or, less probably, the designer at the head of a workshop producing stone dressings in large quantities for use all over the district.

TREFOIL REAR-ARCHES NORTH OF AND INCLUDING THE TYNE VALLEY.

1. BRECHIN. Taking in their geographical order the surviving trefoil rear-arches and dealing first with their architectural setting and then with any common factor in the documents concerning them, our first

[9] "Rex Henricus, Sancti Trinitatis amicus," to quote an inscription in the chapter-house at Westminster.

[10] See G. E. Street in *R.I.B.A. Trans.*, 2nd ser., V, 266.

[11] In these notes I use the term "architect" in its ordinary significance of a man who designs buildings and, if he is lucky, causes his ideas to be realized in stone and lime. The Edinburgh Scott monument was designed by a joiner, St. Paul's cathedral by a professor of astronomy, but they were both architects in this sense of the word, and would have been so called in the early thirteenth century.

example is the cathedral church of Brechin in Forfarshire, and as it is the only cathedral on the list it may be examined in some detail. The more so since both in its plan and in its history during the twelfth and thirteenth centuries it is quite a typical example. Brechin cathedral had an aisleless choir 23 feet 2 inches wide and 84 feet long, a nave 24 feet 6 inches wide and 84 feet 4 inches long, a north-west tower, and north and south aisles each of five bays. The eastern bay of each aisle jutted outwards for a short distance and was gabled, forming a "pseudo-transept," "quasi-transept," or "transeptal chapel." These are all rather clumsy expressions, and I propose for the purpose of these notes to refer to such features hereafter as "aisle-transepts," for they are true transepts of the aisles though they do not cut into the main body of the nave. They are usually formed out of the eastmost bays of the aisles. The centre part of the west front at Brechin was thicker than the aisle gables and may be on the foundations of an earlier church, commenced in 1150, or it may have been made thicker for constructional reasons. The south wall of the nave is 3 feet 1½ inches thick and its arches have plain double champfers and are carried upon octagonal columns with simply moulded caps and bases; above each column is a clearstory window with a well-proportioned trefoil rear-arch; externally the wall is crowned with a corbel-table freely enriched with dog-tooth ornament. The north side of the nave has a similar clearstory but the wall is 3 feet 8½ inches thick, and while two of its pillars are plain octagonal columns the eastmost is richly clustered and the westmost has sunk beads at its angles. This rather peculiar detail is also found in a pillar at Pittington church and in responds at Hexham,[12] but in these two cases the beads stop short of the capitals. The west doorway is of rich late twelfth century work

[12] See under No. 17.

and the chancel arch responds are clustered and have " transitional " caps under long straight abaci very like those under the tower arches of Knaresborough church, Yorks. The responds exhibit the " widening refinement " observed by Professor Goodyear[13] elsewhere. The choir is a very beautiful piece of fully developed " early English " work and appears to date from the third decade of the thirteenth century. It seems evident that a very elaborate " transitional " church was planned, that for some reason the work was abruptly stopped, and that the arcades and clear-story of the nave were completed as economically as possible after some lapse of time and perhaps by a different architect. The cusps of the trefoils are set unusually high, which probably means they are not early examples. (See plate XXI.)

BRECHIN. *Documentary.* Beyond the fact that in 1248 the bishop of Brechin indulged contributors to the building of Finchale abbey, I can find no records of a connection between Brechin and this district during the twelfth and thirteenth centuries. It is probable that the stoppage of work above referred to may have been due to the disastrous end of William the Lion's expedition into England or to the interdict placed upon Scotland by the pope in 1217-18 as a punishment for Scottish support of the English barons against King John.[14]

2. CRAIL, FIFESHIRE. The church of St. Maelrubha at Crail[15] had a choir 16 feet 6 inches by 55 feet and a nave 24 feet 4 inches by 73 feet 9 inches with western tower, north and south aisles of six bays,

[13] W. H. Goodyear, M.A., *Illustrated Catalogue of Photographs and Surveys of Architectural Refinements in Mediæval Buildings.* Edinburgh, 1905.

[14] There had been an earlier connection with Northumberland, the round tower at Brechin has an Anglo-Roman doorway decorated with an Armenian pellet ornament similar to one on the Acca cross at Hexham, and a fragment of " Norman " string-course at Brechin bears a peculiar enrichment also used at St. John's church, Newcastle, and at Durham.

[15] Dimensions from J. Russell Walker, *Pre-Reformation Churches of Fife,* and Erskin Beveridge, *The Churchyard Memorials of Crail.*

and a south aisle-transept erected by the family of Myrton of Cambo. The simple twice champfered arches of the arcades rest on round columns with moulded caps and bases, the former with circular abaci. Above each column is a built-up clearstory window with a trefoil rear-arch, and there are similar rear-arches in most of the tower windows. The chancel arch responds are richer in detail than the nave arcades and have carved caps; their bases are 4 feet above the present nave floor, showing that the original design included a lower floor or semi-crypt under the chancel floor. According to Messrs. MacGibbon and Ross[16] the arcades and clearstory windows are sixteenth century imitations of thirteenth century detail. I hesitate to differ from authorities to whom students of Scottish architecture owe so much, but I do so for the following reason: in the later trefoils, e.g. the highest tower window at Crail and the reconstructed windows at Alwinton, the whole trefoil is above the spring of the outer or face arch; in those most probably early, e.g. Lanchester, Lanercost eastern nave window, and Ponteland, the centre lobe of the trefoil alone rises above the spring of the outer arch—and this is the case in Crail clearstory. (See plate XXI.)

CRAIL. *Documentary.* "Crail's ancient, weel-aired town" was one of pious king David's royal burghs. In 1178[17] Ada countess of Northumberland gave Crail church to the Cistercian nunnery she founded at Haddington. The nuns no doubt began building the present church as soon as they could, and it was complete before 1243, when it was re-consecrated by the indefatigable bishop of St. Andrews, David of Bernham. Alexander II gave the barony of Crail to Richard de Beaumont, whose descendant Isabella married John de Vescy, the Northumbrian connection only ending with the Scottish war of independence.

[16] *Ecclesiastical Architecture of Scotland* III, 363.
[17] Beveridge, *op. cit.*, from which the following particulars are taken.

At Brechin, Crail, and some other churches on our trefoil list, windows are set over the piers of the nave arcades instead of in the normal position over the arches. This has been set down as " Scottish " or " peculiar," but I do not think it is incapable of explanation. The aisles of Durham cathedral had a row of gables instead of the level wall-head to which we are now accustomed.[18] The effect was much admired; it was almost certainly intended to be repeated at Dunfermline and Lindisfarne; it may have inspired the curiously cross-vaulted aisles of Fountains, and in unvaulted churches the same effect was easily produced by transverse roofs resting on beams laid from the aisle walls to the pillars of the nave arcade. Of these latter an example existed at Inverkeithing in Fife, as recently revealed by the discoveries of Mr. H. F. Kerr,[19] where the church (begun before 1156) had clearstory windows set over the arcade piers and lit from the valleys between the aisle cross-roofs. The nave, 24 feet by 65 feet, was only 21 feet 6 inches high, instead of Crail's 27 feet, owing to this low setting of the clearstory. There would be other examples nearer Durham, and our unknown master would be quite accustomed to clearstory windows over pillars as current practice. Even where the aisles had lean-to roofs a saving of height would be effected, and the fact that " void over solid and solid over void "[20] is a heterodoxy would not disturb the justifiable self-confidence of a twelfth century English architect.[21] But we must return to our trefoils.

[18] The original inspiration seems to have been Saxon—as at Wing, Bucks.—or German. In Germany gabled aisle walls survive even in the " new art " churches of our own day.

[19] *Scot. Eccles. Soc. Trans.*, vol. VII, part 2, p. 72.

[20] The rev. J. F. Hodgson was very shocked about this. *D. & N. A. & A. Soc. Trans.* I, 160.

[21] Among examples of clearstory windows set over pillars in other districts may be mentioned those in churches at Iona, Argyllshire; Clun, Salop; Madley, Herefordshire; Ivinghoe, Bucks.; Trumpington, Cambs., etc.

3. INCHCOLM.[22] The Augustinian monastery on Inchcolm in the Firth of Forth has an octagonal chapter-house most of whose lancet windows have a simple moulding running round their scuntions and rear-arches, a treatment found at Brinkburn, Ovingham, St. Andrew's Auckland, and many other churches. On one side only there is a smaller window, unmoulded, with a trefoil rear-arch of unusual construction, for it is cut out of upright slabs of stone instead of being built of radiating voussoirs supported on corbels cut with a curve to unite the differing splays of jamb and head. This does not necessarily mean that Inchcolm is a very early example, there are at least two other possible explanations.

INCHCOLM. *Documentary.* The monastery was founded in 1123 for Augustinian canons from Nostel, Yorkshire, *via* Scone. In 1216 it received an important addition to its capital in the shape of half the lands of Allan Mortimer of Aberdour. The gift may have caused, or have been caused by, a rebuilding scheme which included the completion of the chapter-house.

I do not know of any other trefoil rear-arches in Scotland, and for our next we must re-cross the Tweed.

TREFOIL REAR-ARCHES IN NORTHUMBERLAND

4. FORD. St. Michael's church has been much modernized but retains at its west end one original lancet with a trefoil rear-arch.

FORD. *Documentary.*[23] "Of the origin of Ford church there seems to be no written record."[24] The Ford family were tenants of the barony of Muschamp.

[22] R. W. Billings, *Baronial and Ecclesiastical Antiquities of Scot.* III, plate 24; MacGibbon and Ross, *Ecclesiastical Architecture of Scot.* II, 308; Alan Reid, *Inchcolme Abbey*; and, the best account, J. Wilson Paterson, *Official Guide to Inchcolm*, published by H.M. Office of Works, with numerous excellent plans.

[23] *Northd. County Hist.* XI, 319 and 361.

[24] Rev. H. M. Neville in *D. & N. A. & A. Soc. Trans.* V. cxciii.

5. DODDINGTON. This quaint little church, dedicated to St. Mary and St. Michael, has its nave bisected by a stone archway, the western portion, 16 feet by 24 feet, is aisleless, the eastern, 16 feet by 36 feet, has a north aisle of three bays. The chancel was rebuilt in 1838. All the windows are modern except a lancet in the south wall of the nave and one in the west gable. The latter is shown by F. R. Wilson[25] as having a trefoil rear-arch.

DODDINGTON. *Documentary.* Doddington was a Vescy property and part of the dowry of Sybil de Vescy when she married Walter de Bolbec,[26] *c.* 1170. Their descendant, Hugh de Bolbec III, succeeded king John's favourite Philip of Ulecotes as sheriff of Northumberland and dismantled Philip's castle at Nafferton. Philip of Ulecotes was the son of a Nottinghamshire squire; he and his sisters were among the " bright young people " who attached themselves to Prince John, who, to give him his due, remembered his friends[27] when he came into his kingdom. One could say a lot about Philip of Ulecotes, but this is hardly the occasion.

6. BAMBURGH. The church of St. Aidan has a nave with aisles of four bays and aisle-transepts on both sides. Its choir measures about 60 feet by 20 feet 6 inches and stands on a vaulted crypt which, owing to the fall of the ground, was not subterranean although the choir floor is not raised above that of the nave. In the crypt are windows with flat rear-lintels on brackets similar to those of a trefoil rear-arch but with a high vertical face above them supporting the lintels. In the choir are tall lancets with plain trefoil rear-arches set in well-moulded wall arcading. Hexham is the only other example where this treatment is adopted, and the moulded wall arches, which are not foiled, make a pretty play of

[25] *An Architectural Survey of the Churches in the Archdeaconry of Lindisfarne.*

[26] *Arch. Ael.*, 3rd ser., XXI, 150.

[27] " Sons of Belial " (an allusion to Hugh de Baliol?), according to Matthew Paris. *Chron. Maj.*, Luard's ed., II, 611.

light and shade with the plain trefoils of the windows. Externally the choir has buttresses of rather curious outline; they were restored in 1837, but may be not unlike the original design.

BAMBURGH. *Documentary.*[28] Henry I gave Bamburgh church to the Augustinian priory of St. Oswald at Nostel, Yorks., in 1121, but owing to various causes, and particularly the troubles of John's reign, it is said that they did not gain effective possession till about 1230. They are generally credited with the erection of the choir of the church.

7. LONGHOUGHTON. The east window of the south aisle of the nave of St. Peter's church was a small lancet with a trefoil rear-arch. In the fourteenth century a square-headed two-light window was inserted in the middle, leaving the lancet head *in situ* above, and the trefoil was widened so that its upper lobe is semi-circular.

LONGHOUGHTON. *Documentary.* Longhoughton was in the Vescy estates and has always belonged to the owners of Alnwick castle. The church was among those given to Alnwick abbey on its foundation. Eustace de Vescy was one of the leaders of the barons against king John, who did a lot of damage to Vescy property in the last years of his reign and burnt Alnwick in 1215; in 1212 Philip of Ulecotes had been ordered to destroy Alnwick castle.

8. LESBURY. St. Mary's church resembles some others on our list in possessing a north aisle to its choir, but its trefoil rear-arches are nearly all on the south side of the nave and have been severely restored; in these the whole trefoil is raised above the bed of the outer or face arch, thus becoming a trefoiled arch instead of a plain arch resting on brackets whose curves completed the trefoil outline.

LESBURY. *Documentary.* Lesbury shared the fortunes of the Vescy estates, like Longhoughton, and its church was given to Alnwick abbey when that Premonstratensian convent was founded.

[28] *N.C.H.* I, 103. *Proceedings*, 2nd ser., II, 396; VI, 187-192; VIII, 233.

9. ALWINTON. St. Michael's church consists of a nave with aisles and south aisle-transept all reconstructed in 1851,[29] a modern vestry and an aisleless choir whose floor is 5 feet 5 inches above the nave floor and covers "a large vault"[30] which, owing to the slope of the hillside, is subterranean. One original lancet remains at the east end of the north aisle of the nave and has a shouldered rear-lintel. On each side of the western end of the choir is a single lancet of quite thirteenth century aspect until one notices that its glazing is no less than 17 inches behind the outer wall face and that its crudely constructed trefoil rear-arch has very small rude brackets set too high. Evidently these windows have been cut back—probably in 1635 or 1672[31]—refaced externally and mutilated internally, and thus widened to give more light. A 6 inch bench-table under one of these windows has the same section as the similar feature below the chancel arch bases at Lanchester, of which more hereafter.

ALWINTON. *Documentary.* The Umfravilles of Harbottle, where work was in progress in 1160, owned the advowson of Alwinton.[32] They took the side of the barons against king John, and Richard de Umfraville was a personal enemy of Philip of Ulecotes.

10. FELTON. The charmingly situated church of St. Michael, Felton, has a nave with aisles and an aisleless choir. In the south wall of the latter are three lancet windows, with trefoil rear-arches set so high above the face arches that it seems evident that a lintel on corbels was the first design, and that while the work was going on, or when it was resumed after some interruption, arches were substituted. A fine geometrical traceried window at the east end of the south aisle has also its

[29] D. D. Dixon, *Upper Coquetdale*, 231, and F. R. Wilson, *op. cit.*, 97.
[30] D. D. Dixon, *op. cit.*, 232.
[31] *Proceedings*, 2nd ser., IX, 240.
[32] D. D. Dixon, *op. cit.*, 231.

rear-arch carried on small brackets, giving a slightly trefoiled or shouldered effect, and no doubt inspired by the choir lancets. All the tracery in the head of this five-light window is cut out of a single huge slab of stone!

FELTON. *Documentary.*[33] Felton belonged to the Bertrams, and William Bertram gave its church to the Augustinian priory at Brinkburn. The family supported the barons against John, and one of the Bertrams was a particular enemy of Philip of Ulecotes. It was at Felton that certain of the rebel barons did homage to Alexander II of Scotland.

11. HARTBURN. This is one of the prettiest and most interesting churches in our list. The church was almost entirely reconstructed in the early English period and now has a nave 55 feet 3 inches by 19 feet 6 inches[34] with a western tower whose east wall is built on the face of the older west gable, aisles of four bays, south porch, and choir 48 feet 6 inches by 16 feet 6 inches. The aisle windows seem to be modern except one in the east wall of the south aisle, which has an ingeniously shaped and splayed lintel on concave brackets. (Plate XXI.) The only example of such a detail that I know of elsewhere is a broken stone found during alterations to Ecclesmachan church, West Lothian, which I thought was part of a piscina head but now take to have been part of a lintel of this kind; the same idea on a smaller scale is found in a corbel table of the choir of Lanercost priory. The east windows of the choir at Hartburn have modern heads and are framed by wall arcading on slender banded shafts; three windows on the south side have trefoil rear-arches, one being a modern restoration. In the fifteenth century the lowest story of the tower was vaulted, opened into the nave, and provided with a

[33] *N.C.H.*, vol. VI, and Wilson, *op. cit.*
[34] F. R. Wilson, *op. cit.*, 136.

" perpendicular " traceried west window—with all its tracery cut out of a single stone.[35] The rest of the tower is " early English " except the parapet and flat roof which replace a timber spire whose eaves were carried by a still existing row of corbels. The ringers' chamber windows are lancets with plain concentric rear-arches, but the belfry openings are pairs of arches, each couple sharing a pretty little column with moulded cap and base; behind each double opening is a trefoil rear-arch, and these must be about the largest surviving in our series. Throughout this church one notices a combination of good design and refined detail with rather less good workmanship; for instance the capitals of the nave arcade are too small for the arches, which are cut away to suit them. As this fault is observable at several other churches[36] on our list it may be as well to note possible explanations, which may be as follows:—

(*a*) The builder economized by making his arch blocks fit the Norman walling so that it did not need to be rebuilt over the new arches, and forgot either to inform the architect or to make himself the pillars larger to suit.

(*b*) The architect, perhaps after the work had for some reason been interrupted, or a new architect had been appointed, re-designed the pillars on more slender lines and, over-rating the builder's intelligence, did not call his attention to the necessity for reducing the width of the arch blocks, or

(*c*) The capitals were ordered from a distance as so many moulded capitals to suit octagonal pillars of such and such a size without the thickness of the wall being given.

[35] As one of the few merits of perpendicular tracery is its suitability for construction with small stones, the cutting of this head out of one stone shows the strength of the Roman or megalithic building tradition in Northumberland.

[36] For instance Whalton and Bishop Middleham.

It may be noted that like St. Mary's chapel at Jesmond [37] (and for the same reason—the lengthening of a short chancel) the choir of Hartburn possesses two *piscinæ*; also that the curious and rather ugly[38] jointing of the lower part of one of the trefoils is practically identical with that of a trefoil rear-arch at Lanercost priory. The centre of the west gable is, as at Brechin, thicker than the west walls of the aisles.

Long thirteenth century choirs, such as those at Hartburn and Bamburgh and some others on our list, have been stated (*Arch. Ael.*, 4th ser., I, 185) to be "a feature almost peculiar to Northumberland," and it may be worth while to give the results I have obtained by averaging the internal dimensions of ten thirteenth century choirs in Northumberland, ten in Durham, four (all that remain) in Fife, ten in Northants, twenty in Hunts., and twenty-six in North Bucks., expressed in feet:—

Fife	17·25 × 37·50
Northumberland . .	16·95 × 36·95
Durham . . .	17·40 × 39·20
Northamptonshire . .	16·45 × 34·05
Huntingdonshire . .	16·25 × 33·50
North Buckinghamshire .	15·80 × 32·27

[37] *Arch. Ael.*, 4th ser., V., 102.

[38] It was of course meant to be hidden by plaster. Even those trefoil rear-arches which are made of polished stone were no doubt meant to receive colour decoration. "Les tentatives modernes qui ont été faites pour restituer l'harmonie colorée des œuvres du moyen age, soit qu'elles appliquent a l'architecture ou a la sculpture, ne sont parvenues, malgré la science et l'adresse de leurs auteurs, a rallier tous les suffrages. Mais nous pouvons nous fier au gout, au tact artistique à cette intelligence des convenances monumentales qui est le propre du treizième siècle pour demeurer convaincus que la polychromie devait y être singulièrement harmonieuse et raffinée." L. Pillion, *Les Sculpteurs Français du XIIIme. siècle*, p. 89.

This shows a tendency to slightly greater length of proportion in the north, and, rather surprisingly, a superiority in area. It is possible that some of the longer choirs had their effective length reduced by double screens; the small windows set low near the western ends of some of them look as if they had been intended to light the interiors of such erections.

HARTBURN. *Documentary.* Mr. C. C. Hodges[39] gives 1210 as the probable date for the reconstruction: England was then under a general interdict, but the cessation of church services may have been regarded as a good opportunity for alterations on church buildings, and Dr. C. E. Whiting tells me "there is very little evidence that the interdict was strictly observed everywhere, and it is very doubtful whether it affected church building." According to Hodgson[40] the advowson of Hartburn belonged to the Benedictine monks of Tynemouth, who were confirmed in possession by king John in 1207, a likely date for work to have been commenced. But the bishop of Durham had also claims on Hartburn, and considerable correspondence passed between Henry III and the pope and the bishop and the abbot of St. Albans before the matter was settled. None of these great persons mentioned the fabric of Hartburn church, and Matthew Paris, who could have told us about it, hastes away (like a broadcasting station) from Hartburn to Italy to tell us about the fortunes of the Parmesans! Hartburn, like Doddington and Heddon, was a Bolbec possession.

12. WHALTON.[41] St. Mary Magdalen's church received several additions in the "early English" period, particularly a new choir and aisles to its nave. As at Lesbury, Pittington, Corbridge and Rothbury there is an aisle of two bays on the north side of the choir forming a chapel, dedicated to St. Mary the Virgin, who was, after a period of joint ownership, succeeded in possession by the family of Ogle. The south aisle of the nave has in its west wall a lancet with trefoil rear-arch, unusual in as much as the upper part of the trefoil is cut out of only two stones and has hardly

[39] *D. & N. A. & A. Soc. Trans.* III, xxvii.
[40] *A Hist. of Northd.*, part 2, I, 298.
[41] *Proceedings*, 2nd ser., VII, 212, and 4th ser., IV, 94.

any splay. The low south wall of this aisle had small lancet windows, now built up, with ordinary concentric rear-arches. As at Brechin, the centre part of the west front is thicker than the aisles.

WHALTON. *Documentary.* Whalton church belonged to the Benedictines of Tynemouth and St. Albans.[42] They suffered so much in king John's reign, particularly by the ransom and sacks of St. Albans, that any building they did must have been before 1208 or after 1220. Whalton belonged to Robert fitz Roger, who was one of the barons who forced king John to grant Magna Charta and who afterwards paid dearly for their action.

13. PONTELAND. St. Mary's church has a nave 51 feet 9 inches by 21 feet 6 inches[43] with aisles of four bays, north and south aisle-transepts, and choir 48 feet 6 inches by 21 feet 6 inches. The western tower, north aisle-transept, and choir are the only parts above window-sill level older than the Scots raid of 1388 when Ponteland was burnt. In the north aisle-transept are three lancets with trefoil rear-arches, and two more on the north side of the choir. The external masonry of the aisle-transept lancets is entirely different from that of those in the choir, and the former have much deeper external splays. The aisle-transept windows appear to be the later of the two, and may have been refaced when the north aisle was rebuilt in 1820. In the aisle-transept gable are three lancets with flat rear-lintels on high brackets very like those in the crypt of Bamburgh church and the castle chapel of Prudhoe.

PONTELAND. *Documentary.* In the twelfth century the living of Ponteland was in three parts held by three brothers called Gategang. On the death of one of them a certain Robert Mautalent succeeded to his share, and obtained leave from

[42] Hodgson, *op. cit.*, part 2, I, 370.

[43] *N.C.H.* XII, 423. A very good account of the building with an excellent plan, apart from a small error in the dating of parts of the tower.

bishop Hugh de Puiset " to enter the other portions as they became vacant, and to hold them for redintegrating the said church."[44] The other brothers died in or after the episcopate of Philip de Poitou, but Mautalent became involved in litigation with Roger Bertram, whose patronal rights had been disregarded, and the matter was not settled till 1240-1. It is probable that a Norman church was built early in the time of the Gategangs, and that either Bertram or Mautalent reconstructed it by way of consolidating his legal position. Bertram was, as already stated, an opponent of king John and his officials.

14. TYNEMOUTH PRIORY.[45] When the architecturally ambitious John de Cella was abbot of the Benedictine abbey of St. Albans (1195-1214), or perhaps shortly before his time, it was decided to extend both eastwards and westwards the church of that abbey's " cell " at Tynemouth. The eastward extension came first and is an exceptionally fine piece of " transitional " detail. When it had been completed as high as the eaves, at any rate on the south side, the work seems to have been interrupted, and when it was resumed the design of the upper part of the east gable was altered, particularly as regards its buttresses. In this upper part is a lancet window with splayed scuntions whose splays are reduced, at a point about half-way between head and sill, by means of small concave brackets somewhat after the manner of a trefoil rear-arch; this window was not seen from the interior of the church and is unmoulded internally. The westward extension of the church followed; it is much more restrained than the choir, but is also a very fine piece of work. In the north aisle of the extended nave is a lancet window with a trefoil rear-arch, but differing from the usual detail in possessing a stop-champfer round its upper portion. In the south aisle is a window with a flat rear-lintel carried

[44] *N.C.H.* XII, 261.
[45] *Arch. Ael.*, 3rd ser., XIX, 105; *Arch. Journal* LXVII; *N.C.H.* VIII.

on double concave brackets rather like those in the undercroft of the refectory at Lanercost priory and the gable window of Hulne priory church.

TYNEMOUTH. *Documentary.*[46] During the early thirteenth century the monks of St. Albans suffered considerable loss by the successive sacks of that town and by the heavy ransom exacted from them by one of its assailants. They were also constantly at feud with the bishop of Durham and the burgh of Newcastle. It is probable that the new choir was commenced in or before the abbacy of John de Cella, and that the completion of the choir and the building of the nave belong to the time of his successor William of Trumpington (1214-35), who visited Tynemouth on more than one occasion, and who continued John de Cella's work at St. Albans but with simplified detail.[47]

15. HEDDON-ON-THE-WALL. (Fig. 2.) In the third or fourth decade of the twelfth century plans were prepared for additions to the Anglian church on Heddon Hill. The choir was completed, and, about forty years later, the north aisle of the nave begun when the work was stopped for some years, and when it recommenced " early English " details were used for the nave and for new windows which were inserted in the south and east walls of the choir. The south windows each consist of two lancets separated by a broad mullion and crowned internally with a single trefoil rear-arch. Externally, as at Hartburn, the two heads are not united under one arch; but above and between them is a well-carved human head emerging from a sunk panel. In the east window (destroyed last century) there were three lights under one trefoil rear-arch. All the windows in the nave have trefoil rear-arches, but as they all date from the nineteenth century it is uncertain whether they reproduce the original design. The church was dedicated either to St. Andrew or to SS. Philip and James.

[46] Mathew Paris, *Chronica Majora*, various references.
[47] *The Abbey Church of St. Alban*, by J. Neale, F.S.A.

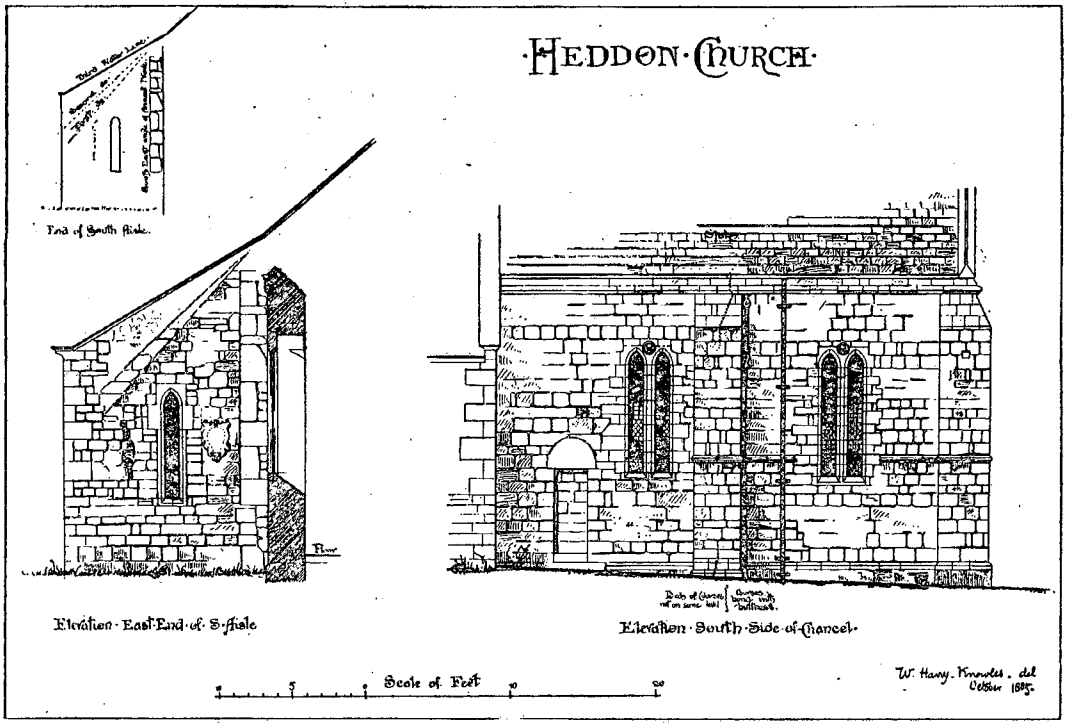
HEDDON CHURCH
End of South Aisle.
Elevation East End of S. Aisle
Elevation South Side of Chancel
Scale of Feet
W. Harry Knowles. del
October 1885.

Fig. 2.

HEDDON-ON-THE-WALL. *Documentary.*[48] Heddon, like Hartburn and Doddington, was Bolbec property, and Walter de Bolbec II gave the church to the Premonstratensian or Norbertian abbey of Blanchland. This was no doubt the date when the reconstruction of the nave was begun, while the delay in completion of the work may have been due to the troubles of John's reign. It is noticeable that in detail the churches of Heddon and Hartburn resemble each other more than they resemble the respective monastic churches to which they belonged. Evidently one of the Bolbecs " paid the piper and called the tune."

Since writing the above I have consulted Professor Hamilton Thompson, and he has kindly allowed me to include the following as his opinion on this rather difficult subject :

" I should say, to judge from what we know, that the ordinary custom, when a church was given to a monastery for appropriation, was for the donor to put the fabric in fair condition, on the understanding that the appropriators of the great tithe would contribute their share to subsequent repairs. No doubt, as time went on, the chancel was ear-marked as the part of the church for which the appropriating monastery like other rectors was responsible. But that the responsibility of the donor to the fabric was wholly abandoned is very unlikely, and the subsequent custom by which the nave was rebuilt or repaired at the cost of the lord of the manor and other parishioners, could not have come into being if this had been the case. It should always be remembered that in the gift of a church to a monastery the word ' church ' implies, not a concrete fabric, but simply the right of patronage with the profits to be derived from it; and consequently gifts of churches furnish us with no architectural evidence. The fabric was a purely secondary matter, and it is very likely that in a great many instances of such gifts no alteration whatever was made in the fabric of the church. A very great many unfounded statements with

[48] *Arch. Ael.*, 3rd ser., XXI, 150. N.C.H. XIII.

regard to churches have been made, owing to the misunderstanding of this essential point. There is one interesting example of the building of a church in the twelfth century which shows that the ordinary custom, however prevalent, was not altogether settled. The monks of Byland, to whom property had been given by a local landlord, constructed at their own expense, in 1146, the church of Scawton on the moors south-east of Rievaulx Abbey. This is definitely stated by the chronicler of Byland. See *Monasticon* V, 351. This, however, was not at first a parish church, but was a new chapel where none had been before; and, as the lord of Scawton was certainly a grasping person who rather later became a great nuisance to the monks, I am inclined to think that he made the building of the chapel a condition of his gift. At any rate, the arrangement cannot be taken as general, and I think that it would have been difficult to enforce it with regard to the fabric of an existing parish church. Of course, at a later date, some benefactor was always at liberty by a private arrangement to relieve an appropriating body of its responsibilities to the fabric. There are a few records of this: e.g. when the church of Sibthorpe was appropriated to the college of chantry priests founded there towards the middle of the fourteenth century, the founder charged himself entirely with the rebuilding of the very handsome chancel which still remains."

"The question is obscure, and such architectural texts as survive from the twelfth century throw extremely little light upon it. The main thing to remember is that the gift of a church has no necessary connection with the fabric, and that it cannot be safely construed to include any understanding with regard to it, failing any such clause to that effect."

16. CORBRIDGE. Between nineteenth century restorations and twentieth century improvements, St. Andrew's church has lost most of its antique appearance, but the south wall of the choir looks like genuine

thirteenth century work. It contains four lancet windows with trefoil rear-arches internally, and is propped by shallow buttresses whose lower parts project boldly, a little like the buttresses at Bamburgh but apparently less restored. The church has a nave with western tower and aisles, north and south aisle-transepts with western aisles of their own, and a choir with, as at Whalton, etc., an aisle on its north side. In the tower a magnificent Anglo-Roman archway makes the early English arcades look almost flimsy by comparison.

CORBRIDGE. *Documentary.*[49] Henry I, *circa* 1122, granted the churches of Newcastle and Newburn, and the reversion of those at Warkworth, Corbridge, Rothbury and Whittingham, to the Augustinian priory of Carlisle, subject to certain tithes payable to Tynemouth priory. The Carlisle canons became entitled to appoint a vicar of Corbridge in 1196, but the see of Carlisle fell vacant and king John treated the rights of the bishop—who had an undefined share in the priory's property—as his own and appointed one of his clerks to the vicarage. The see of Carlisle was filled in 1218, in which year the bishop of Durham confirmed the canons' rights, and all matters in dispute were settled in 1221. It seems likely that reconstruction of the church began in 1196 but was interrupted and the choir not built before 1218. Like Whalton, Corbridge was on the estates of Robert Fitz Roger, who very likely paid for the work at both places.

17. HEXHAM PRIORY. (Plate XXI.) The priory church of St. Andrew possesses in the clearstory of its choir, the most beautiful group of trefoil rear-arches ever built. Like those at Bamburgh they are framed by moulded arcading and slender shafts, but the proportions of the parts are better and the whole effect is very fine. Mr. C. C. Hodges[50] has shown that work was stopped when the clearstory was half built, and for so long that it was considered worth while to throw

[49] *N.C.H.* X, 43.

[50] C. C. Hodges, *Guide to the Priory Church of St. Andrew, Hexham*, 2nd ed., revised by John Gibson, F.S.A., Hexham, 1921. See also Mr. Hodges' large monograph on Hexham priory.

a temporary roof over the choir. When work was resumed the design of the clearstory was altered, much to its improvement, and the trefoil rear-arches erected. Mr. Hodges considers that the original intention was a belt of arcading separating the clearstory from the triforium, but I am inclined to think that a rather squat clearstory, like that in the south transept of York minster, had been intended, and that this was heightened by the designer of the trefoils when he took charge of the completion of the work. Semi-octagonal shafts decorated with quirked angle beads, which recall those at Brechin and Pittington, occur in the piers supporting the east side of the tower. The Goodyear widening "refinement" is also conspicuously present at Hexham, as it is at Brechin, Crail, Heddon, and elsewhere on our list.

HEXHAM. *Documentary.* The priory was founded for Augustinian canons from Yorkshire in 1112. In 1153 they began to repair the Anglian ex-cathedral, but it is said that they did not commence the rebuilding of the choir before the Scots invasion of 1175. Unfortunately all the documentary evidence was *combusta,* as the Lanercost chronicle says, by the Scots in 1296. It is probably safe to say that the interruption in the work was caused by the troubles of king John's reign, and particularly by the interdict of 1208.

18. HALTWHISTLE. The church of the Holy Cross has a nave about 64 feet long with aisles of four bays and a choir 46 feet by 19 feet. The nave arches rest on circular pillars with moulded capitals which change in plan from circular to square with the corners cut off. Clearstory windows are set over the pillars and have rear vaults with champfered ribs of segmental pointed outline. It has been stated that this church resembles Crail[51] and that its details are "Scottish." But the two churches are entirely unlike in every respect except that both have clear-

[51] The rev. C. E. Adamson in *Arch. Ael.*, 2nd ser., XVI, 185.

story windows over the pillars of their nave arcades. It is true that the rear-arches of Haltwhistle's eastern lancets are faced with moulded trefoil arch ribs, but there are no such features at Crail, where the trefoil rear-arches are all of the plain unmoulded form used by our architect, who never gave them more than a simple champfer even where, as at Hexham, he could afford to frame them in moulded arcading. I would have liked to credit him with Haltwhistle, for its details are good and progressive, but I cannot honestly do so, though it may of course have been a very late example of his work.

HALTWHISTLE. *Documentary.*[52] In 1911 William the Lion gave this church to the Tyrhonensian monastery he founded at Arbroath in memory of his murdered friend Thomas à Becket; and he gave the manor to his daughter Isabel, the wife of Robert Ros, lord of Wark, who died in 1226, and whose lands were laid waste by king John in 1215. To judge from confirmation grants, work on the church may have been in progress in 1220, but it is unlikely that the monks of Arbroath would have any money to spare for Haltwhistle until the completion of their own great church in 1238.

19. PRUDHOE CASTLE. The picturesque little chapel over the gateway at Prudhoe, with its quaint angles and early example of a jutty window, contains lancets with high bracketed rear lintels similar to those associated with trefoil rear-arches at Bamburgh and Ponteland, and it may therefore be included in our list.

PRUDHOE CASTLE. *Documentary.*[53] Odinel de Umfraville built a great part of Prudhoe castle and got himself seriously into debt before his death in 1181. His son Robert, who died in 1195, inherited his financial difficulties, and it is probable that the chapel was not built till the time of Richard de Umfraville, who was a benefactor of the church, or his son Gilbert, who succeeded him in 1227. Richard opposed king John, and in 1215 his lands were taken from him and given to Hugh de

[52] *Ibid.*, p. 177.
[53] *N.C.H.* XII, 85; C. J. Bates, *Border Holds* I, 201 *et seq.*

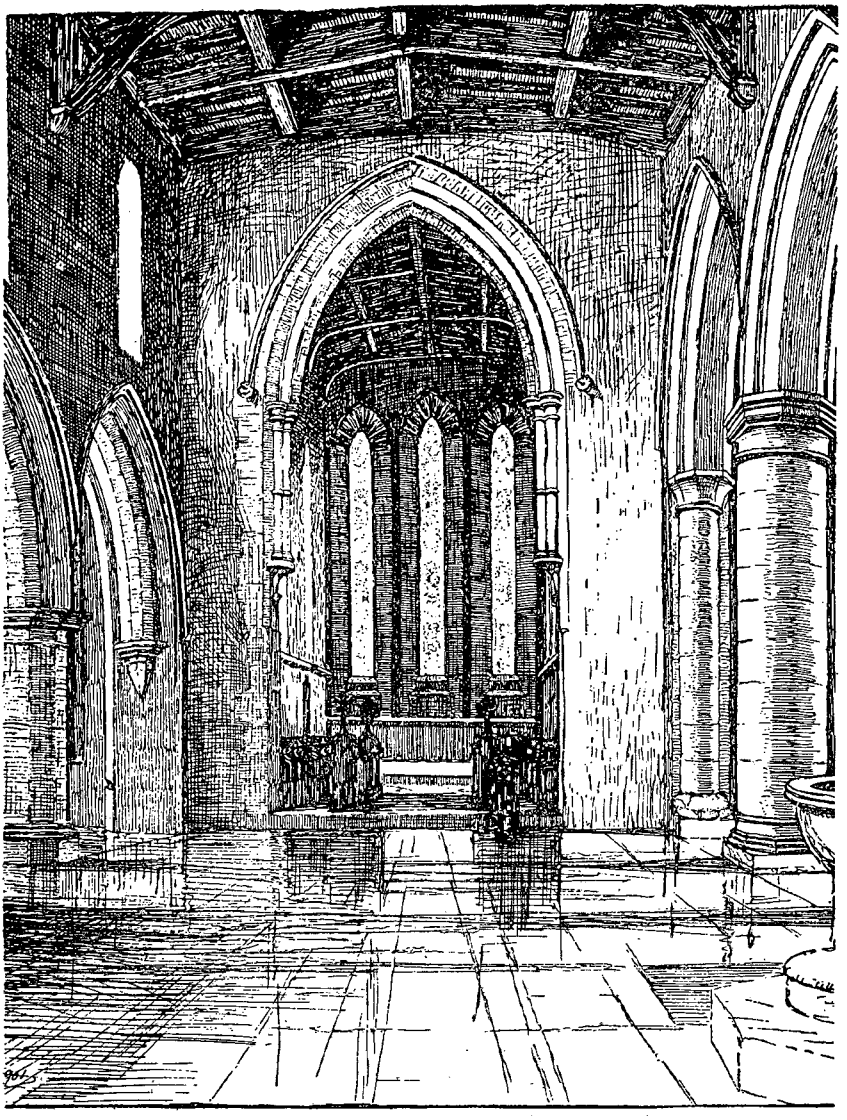

Fig. 3.
Interior of St. Peter's church, Bywell.
(*From a sketch by Robert Bertram.*)

Baliol, while he had to hand over Prudhoe castle to Philip of Ulecotes. The possibility that Philip built the chapel cannot be excluded, but its masonry does not resemble that of his own castle at Nafferton.

20. BYWELL.[54] St. Peter's church has a choir 36 feet by 13 feet 6 inches, with three lancets in the east gable, one in the north side wall, and two on the south. All are provided with trefoil rear-arches. (Fig. 3.) The lower parts of the trefoils are unusually small; they may have been imitated from the now destroyed choir of St. Andrew's church, Bywell.

BYWELL. *Documentary.* The church was given by one of the early Baliols to St. Alban's abbey, from which it was transferred in 1174 to the prior and Benedictine convent of Durham subject to a life interest. The choir is believed to have been rebuilt by the monks of Durham soon after they obtained possession. In the troubles of John's reign the priory of Durham, as a matter of course, opposed the king's bishop, Philip de Poitou, and his lay successor, Philip of Ulecotes, for there was what one might almost call a hereditary feud between bishop and priory at Durham. The adjoining parish of Bywell St. Andrew was in the barony of Bolbec, and its church belonged to Blanchland abbey.

These are all the examples in Northumberland that I have either visited or seen illustrated, but it is quite possible that others exist, and almost certain that a considerable number which formerly existed have perished.

21. LANERCOST PRIORY.[55] The church of St. Mary Magdalen of this Augustinian priory is my only example in Cumberland, but it is of particular interest owing to the position occupied by its trefoil rear-arches in relation to other parts of the building. The church[56] consists of a nave 99 feet 3 inches by 25 feet 10 inches, with north aisle only, transepts

[54] *N.C.H.* VI, 106-7.
[55] R. and C. Ferguson, *A Short Historical and Architectural Account of Lanercost.*
[56] The rev. A. P. Durrant in *Scot. Eccles. Soc. Trans.* IX, 23.

with eastern aisles, central tower, and a choir 82 feet 6 inches by 23 feet 8 inches, with aisles on both sides. The lower part of the south or cloister wall of the nave is "transitional" in style and has doorways rather like one at Grindon chapel. The choir and transepts are early English in style and seem to have followed on the completion of the cloister. For some reason the work was hurriedly terminated, with the erection of just enough of the nave to buttress the transept arches and the provision of a temporary west front. In this part of the work occur the trefoil rear-arches, one on each side of the nave and two on the west side of the south transept. Some time later, as is shown by the changes in mouldings and ornament, the nave was completed and the central tower and south aisle of the choir reconstructed, with the omission of the triforium which covers the north aisle of the choir. In its jointing the trefoil in the south wall of the nave resembles one at Hartburn, as already noted. Its dressings are of grey stone in a wall faced with pink ashlar, but it is not necessarily an insertion and its rybats are bonded into the ashlar. In the later portion of the nave aisle are lancets with acutely pointed rear-arches supported on small quirked concave brackets; they are evidently inspired by the earlier trefoils, but rise so high above the face arch that their builder obviously entirely misunderstood the purpose of the design he was improving upon. There are very similar rear-arches in the choir of Bellingham church, Northumberland. In the crypt below the refectory are rear-lintels resting on cusped brackets somewhat like those already referred to at Tynemouth.

LANERCOST PRIORY. *Documentary.*[57] The convent was founded by Robert de Vaux in 1169. In the reign of Richard I it received many additions to its property, and no doubt com-

[57] R. C. Ferguson, *op. cit.*

menced building the present church. The interruption may have been due to the general interdict of 1208, though under their charter the monks were allowed certain privileges at such times—among which the right to build is not specifically mentioned. It is certain that in 1214 they did erect a standing cross with this inscription :

ANNO · AB · INCARNATIONE · MCCXIIII · ET VII · ANNO · INTERDICT · OPTINENTE · SEDEM · APOCAM · INNOCENT · III · IMPERANTE · IN · ALEMANIA · OTHON · REGNANTE · IN · FRANCIA · PHILIPPO · JOHE · IN · ANGLIA · WILLMO · IN · SCOTIA · FACTA · H · CRUX.[58]

All the other documents of the priory were burnt in 1296, but the extension of the nave is believed to date from the middle of the thirteenth century, perhaps as late as 1250, when the heiress of Vaux married Thomas Multon.

In the next portion of these notes I hope to deal with trefoil rear-arches south of the Tyne valley and to draw whatever conclusions seem possible from the architectural and documentary evidence as to the period when their designer was in practice and the circumstances which allowed him to impress his personality on this particular series of buildings.

[58] *C. & W. A. & A. Soc. Trans.* IX, 154.

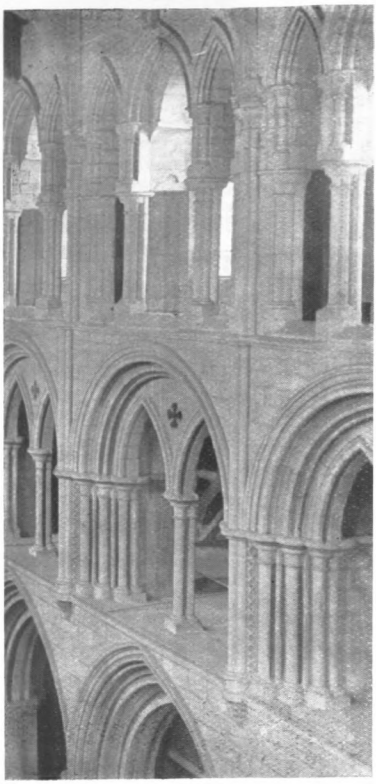

FIG. 2.

FIG. 1.

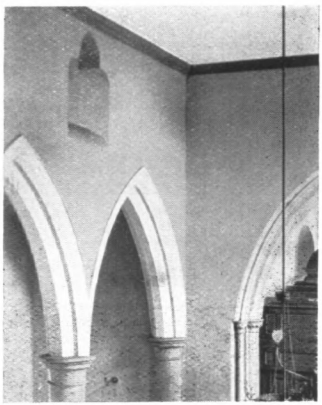

FIG. 3.

FIG. 4.

HARTBURN, 1; HEXHAM, 2; CRAIL, 3; BRECHIN, 4.