

NOTES OF AN EXAMINATION OF THE ARCHITECTURE OF THE  
CHOIR OF LINCOLN CATHEDRAL, WITH A VIEW TO  
DETERMINING THE CHRONOLOGY OF ST. HUGH'S WORK.

By the Rev. E. VENABLES Precentor of Lincoln.

THE following Memoir contains the results of a careful examination of the choir and eastern transept of Lincoln Cathedral, made in the month of July, 1874, by Sir Gilbert Scott, Mr. J. H. Parker, C.B., Mr. J. L. Pearson (the consulting architect of the Dean and Chapter), and myself, with the view of settling some controverted points connected with the architecture of those portions of the fabric.

It will be remembered that the Cathedral, first raised on the present site by Bishop Remigius, which was ready for consecration at his death in the year 1092, and subsequently repaired and vaulted in stone by the warlike Bishop Alexander after the disastrous fire of 1141, or a little later, was found substantially unchanged by Bishop Hugh of Avalon, when, in the year 1186, sorely against his will, he was forced to obey his Royal master's behest, and exchange his quiet Carthusian monastery of Witham, for the episcopal government of the wide-spreading diocese of Lincoln.<sup>1</sup> The year before Bishop Hugh's consecration, 1185, the Cathedral church of Lincoln had received serious damage from the earthquake which, on the 15th of April, had convulsed nearly the whole of England. Whether from the fabric having been so much shattered as to render its rebuilding a matter of necessity, or simply from a desire to replace the

<sup>1</sup> The diocese of Lincoln comprehended at this time no fewer than nine counties, viz. Lincoln, Rutland, Northampton, Huntingdon, Bedford, Buckingham, Oxford, Leicester, and Hertford. The county of Cambridge had been removed from it on the foundation of the See of Ely in A.D. 1109. This huge diocese remained undiminished till the Reformation, when, in 1541 and 1542, the dioceses of Peterborough and Oxford were formed, and the counties of Northampton, Rutland, and Oxford placed under the new Bishops.

In 1550 the archdeaconry of St. Albans, comprising the county of Herts, was placed under the See of London. No further diminution of the area of the diocese of Lincoln took place till 1837, when the counties of Bedford and Huntingdon were placed under Ely; that of Buckingham under Oxford; and that of Leicester under Peterborough. At the same time, however, Nottinghamshire was taken from the See of York and added to that of Lincoln.

rude Norman work of his predecessors with the graceful architecture which had just blossomed out of the Transitional Style, Bishop Hugh had scarcely taken his Episcopal seat when he began to plan the reconstruction of his Cathedral church. The work began, as it always did begin, in our Cathedrals and Abbey churches, at the east or altar end. The first stone of the new choir was laid in 1192. The work was prosecuted with vigour for eight years, under the personal superintendence, and sometimes with the manual assistance of the Bishop, by his architect Geoffrey of Noyers, and his band of skilled workmen. On St. Hugh's death in 1200, the choir and eastern transept were completed, the foundation of the great or western transept had been laid, and a portion of its eastern walls had been erected.

A peculiar interest attaches to these portions of our Cathedral as the earliest known example of pure Gothic architecture, entirely free from any lingering trace of Romanesque influence, not in England only, but in Europe. It would be rash to assert that it was the first work executed in the Early English style, but we can accurately determine the dates of many of the chief examples of that style, and the choir of Lincoln is the earliest of them all. It is not surprising, therefore, that there are few architectural works in England which have received so much attention from the most competent investigators, and that chiefly with the view of determining, first, whether the design is of French or English origin? and, secondly, whether what we see in the choir and eastern transept is all of St. Hugh's time, or whether the design received later modifications and additions in the Early English period?

The first of these questions has been completely set at rest by the investigations of Mr. J. H. Parker, Mr. E. A. Freeman,<sup>2</sup> Prebendary Dimock, and Mr. Edmund Sharpe. The remarks of the two last-named gentlemen, in their papers on

<sup>2</sup> See "St. Hugh of Lincoln and the Early English Style."—"Gentleman's Magazine," November, 1860. This paper is anonymous, but internal evidence indicates its writer beyond question. The author remarks, "St. Hugh's style . . . may be the personal invention of Hugh himself or of his architect, Geoffrey of Noiers. But if so it is clear that it was only in England, and indeed only in part of England that the invention took root.

It may have been actually devised by French or Burgundian brains, but it was devised beneath the air of England, and bore fruit nowhere but in English soil. . . . Hugh and Geoffrey and their followers boldly cast off all Romanesque trammels, and carried Gothic architecture at once to the ideal perfection of its earlier form. England accepted their gift and gave to it."

the "Architecture and on the Documentary History of Lincoln Cathedral," printed in the Lincoln Society's volume for 1868, in addition to those of Mr. Parker in his edition of Rickman's "Gothic Architecture," p. 233, the "Archæologia," vol. xliii., and elsewhere, render any further discussion of this question needless. It has been satisfactorily proved that, for once, the highest English architectural authority, whose death we have been so recently called to lament, Professor Willis, was in error when he so confidently asserted the French character of the design, and that its architect, in spite of his foreign name, instead of being "a mad Frenchman," as in allusion to singularities and the eccentricities which mark his work, he styled him,—“may well have been a thorough born and bred Englishman, with three or four generations of English parents before him.”<sup>3</sup> The first French authority, M. Viollet le Duc, from whose verdict on questions of the architecture of his country there is no appeal, has pronounced most unhesitatingly that all the work of the choir of Lincoln is thoroughly English work, without any trace of French character to be seen anywhere about it.<sup>4</sup>

The English origin of the building being thus established beyond controversy, the chief point which presents itself for consideration is, whether the *whole* of the church and eastern transepts, as we see them now, formed one design, or whether any, and what additions and modifications were made during the progress of the work, or shortly after its completion. This question has chief reference to the double decorative wall-arcades, and the stone vaulting of the choir and its aisles, and the flying and other buttresses which support it.

It will be borne in mind that the lower compartment of the aisle walls, beneath the windows of St. Hugh's Choir and transepts is ornamented with a double arcade; an outer arcade of trefoiled arches, standing in front of one of pointed arches, the latter being ornamented with a dog's-tooth moulding.<sup>5</sup> Each set of arches is supported

<sup>3</sup> The Rev. J. F. Dimock, in "Recorded History of Lincoln Cathedral," Lincoln Architectural Society's vol. for 1868, p. 196.

<sup>4</sup> "Gentleman's Magazine," May, 1861, p. 551.

<sup>5</sup> This double arcade is also found in the triforium of Beverley Minster, c.

1230. There, as at Lincoln, the trifoliated arches stand in front of the plain pointed arches, which latter are much shorter than at Lincoln. Our intelligent Clerk of the Works, Mr. J. J. Smith, has called my attention to the fact that in the double arcade in the chapel of the north transept of Lincoln, where

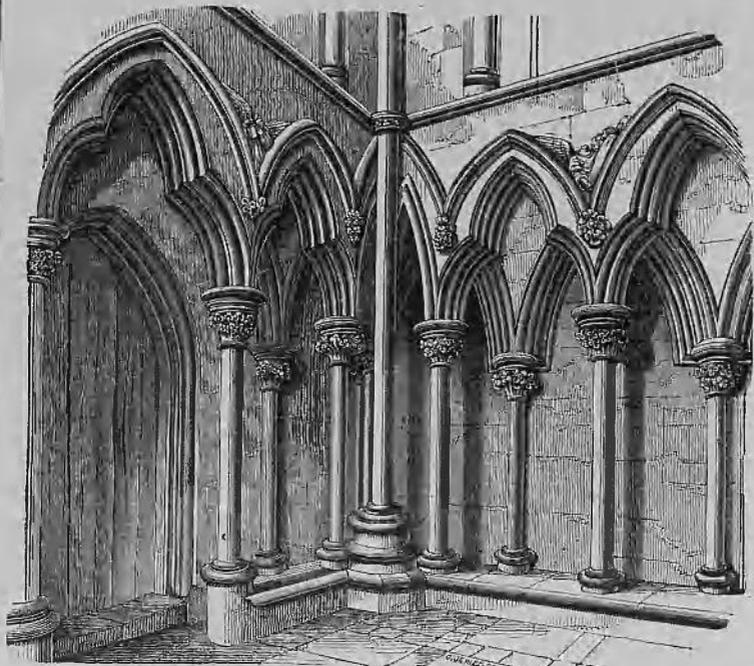
by shafts with foliated capitals; the shafts of the outer range vertically bisecting the arches of the inner range behind them. Each of these arcades is independent of the other, and the inner arcade is as carefully finished in those parts which are concealed by that in front of it, as if they had been intended from the first to be seen. The shafts that support the vaulting of the aisles also stand quite clear of both arcades, completely detached from the walls, so that in the angles of the building we actually have three shafts in front of and partially hiding each other.

The vaulting of the central space likewise springs from shafts almost clear of the walls behind them, and offers singularities of construction which have claimed much attention. The chief peculiarity of this vault may be thus described. In ordinary quadripartite vaulting, as is well known, the vaulting cells within which the clerestory windows are set, are formed by the diagonal ribs of the vaulting parallelogram. The cells consequently meet in the central ridge of the vaulting, and the two sides of each cell are exactly equal in size and curvature. In the choir of Lincoln Cathedral, by a singular whim of the architect, which we may rejoice has found no imitators, a different plan has been followed. The usual diagonal ribs are wanting. The vaulting cells do not meet in the centre. But the length of the central rib being divided into three equal spaces, each marked by a boss, the bounding ribs of the southern vaulting cell meet in the eastern, those of the northern in the western boss. This arrangement gives a twisted effect to the vaulting, which cannot be said to be pleasing. This singular vaulting plan is found in the crossing, and the three eastern bays of the choir. The westernmost bay, which must have suffered more than any other by the fall of the tower in 1237, is a later reconstruction, and is sexpartite. Whether this was the original plan we have no means of determining.

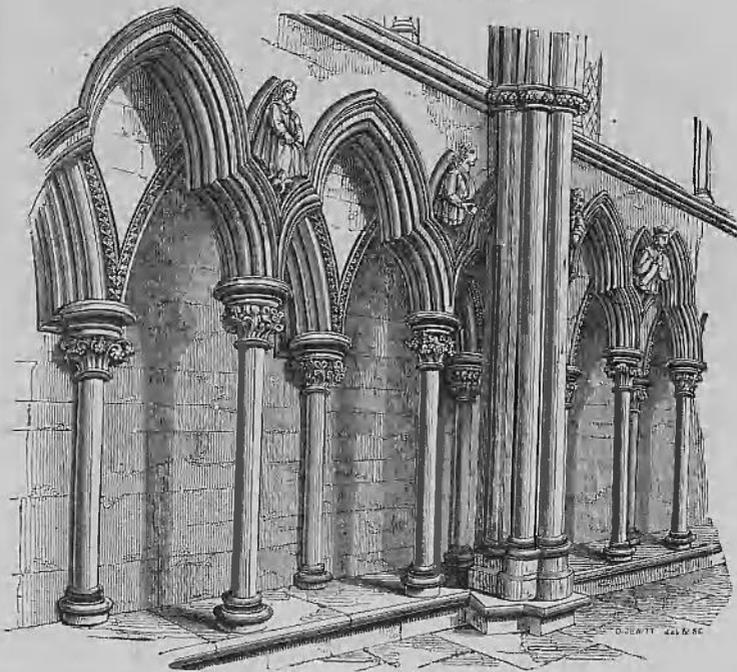
The outward thrust of such stone vaults as those of the choir and aisles of our Cathedral is very great, and needs careful constructive aids for its resistance. These aids are supplied for the choir vault by external flying buttresses to

St. Hugh's work suddenly breaks off, the pointed arches stand in front, the trefoiled behind. In the corresponding

chapel in the south transept the usual design is continued.



Lincoln Cathedral. Double Arcade.



Lincoln Cathedral. Double Arcade.

the clerestory, and internal arch buttresses within the triforium gallery; and for that of the aisles by a series of massive wall buttresses with pedimented heads, dividing the bays from each other, and slenderer buttresses of less projection between the windows, bisecting each bay.

Mr. J. H. Parker, who has made Lincoln Cathedral the subject of careful study for many years, has expressed his opinion in several of his valuable publications<sup>6</sup> that the peculiarities above described are due to successive alterations in the design, especially those necessitated by the fall of the central tower in 1237. The special points to which he invited consideration were—

(1.) Whether the double arcading beneath the windows of the aisles did not indicate an addition of some nine inches to the thickness of those walls, and whether it was the original intention that the aisle should be vaulted in stone?

(2.) Whether the stone vaulting of the choir may not have been a later addition, and not at first intended; the building having been originally designed for a timber roof alone?

(3.) Whether the cross arches of abutment within the triforium gallery, and the flying buttresses of the clerestory, were not also later additions introduced to resist the pressure of the stone vault?

These suggestions received the respectful attention which can never fail to be accorded to any expression of opinion proceeding from one to whom the history of architecture is so largely indebted, and whose field of observation is so wide. After very careful consideration, however, of the building itself, and the arguments adduced by Mr. Parker, the following conclusions were arrived at by Sir Gilbert Scott, Mr. Pearson and myself, and received on the whole the acquiescence of Mr. Parker also.

I. *Double Wall Arcade*.—The two systems of wall arcades, although distinct, and although their arrangement is so irregular that they present quite a medley of perplexities, still form part of one and the same original design. The grounds for this conclusion are (1), that the separation between the two planes of decoration does not rise higher

<sup>6</sup> Rickman, "Attempt to Discriminate the Styles of Architecture in England," Parker's Edition, p. 233. "The Eng-

lish Origin of Gothic Architecture," —"Archæologia," vol. xlii. p. 87-90.

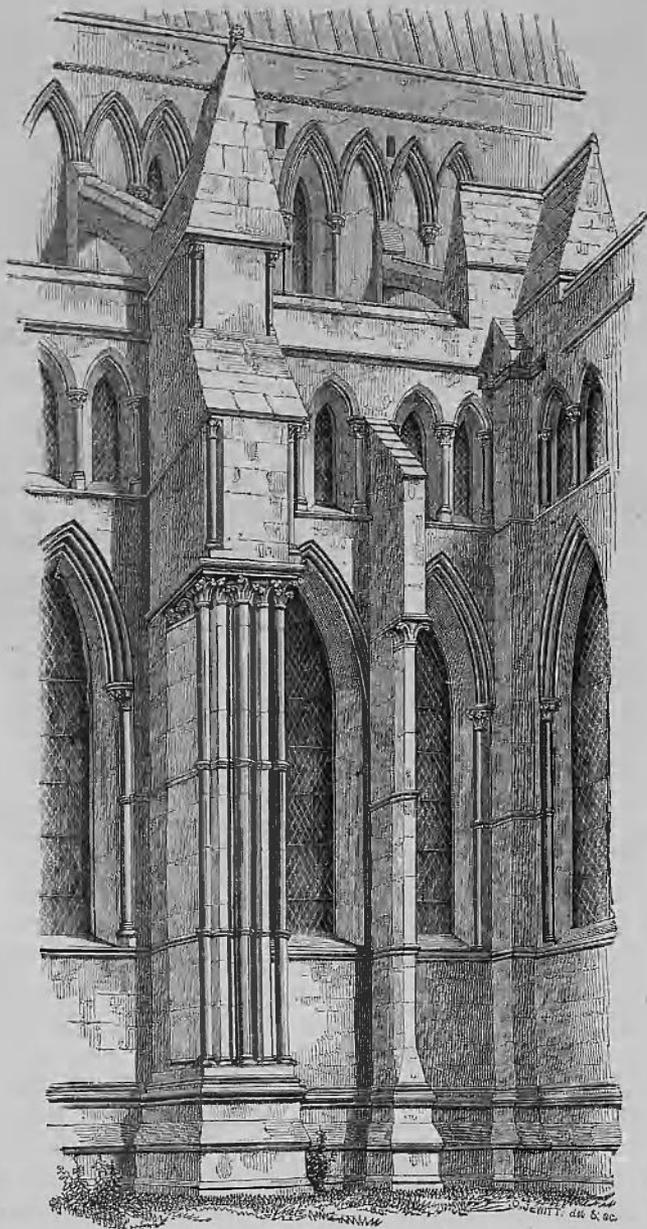
than, or even quite reach to the string course beneath the window sills ; (2), again, if the outer arcade were a subsequent addition, it would disarrange the setting out of the responds and piers, which is not the case ; and (3), it would follow that the walls were at first of a thinness very unusual in works of that date, and of such magnitude ; (4), besides, in one place, much concealed from view,<sup>7</sup> both the inner and outer arcades are left unmoulded, showing a coincidence of intention which indicates that the work was contemporaneous ; (5), that the aisles were always intended to be vaulted is shown by the existence of a fully developed triforium. The irregularities in the two arcades, which are by no means small, and are very perplexing, are probably attributable to the workmen not fully understanding the intentions of the master mason as to how the two arcades were to come together. The independence of the arcades is due to the fact that the separate mode of construction, though a rude expedient, was found to be the easiest way of working them.

II. *Vaulting*.—An examination of the vault of the choir leaves little doubt of its being of a date subsequent to St. Hugh's time, but Sir Gilbert Scott and Mr. Pearson were convinced that it had not only been always intended, but in all probability was erected, as the completion of the original design, though afterwards damaged by the fall of the central tower, and consequently to a considerable extent reconstructed. The singularity of the plan of the vaulting already spoken of has been ascribed to a desire to adapt the groining to the timbers of an already existing roof, constructed with a view to a boarded ceiling. This is in the highest degree improbable, and there can be little doubt that the eccentric arrangement of the vaulting cells is due to the original designer of the choir.

The vaulting of the eastern transepts, sexpartite in plan, adapted to the double lancets of the clerestory, is certainly of the original work unaltered, except in the southern bay of the southern arm, which has been submitted to an extensive reconstruction. If the transept was vaulted from the first, it is difficult to believe that the choir was allowed to remain destitute of a stone roof.<sup>8</sup>

<sup>7</sup> This will be seen at the north-east corner of the Dean's Chapel.

<sup>8</sup> Mr. Sharpe has subsequently called my attention to the fact that the groin-



Lincoln Cathedral.  
Exterior of Choir Aisles.

III. *Abutments*.—Passing from the vaulting to its abutments and supports, it was decided that the arches crossing the triforium gallery transversely, between the aisle vault and its roof, were prepared for and intended from the first, but were not actually constructed till somewhat later, and then of a reduced thickness. This accounts for the appearance mentioned by Mr. Parker of “arch-buttresses” having been “introduced against the old flat buttresses, which were sufficient to carry the old timber roof, but not to carry the new vault.”<sup>9</sup>

The flying buttresses of the clerestory, and the upper portions of the buttresses connected with them, were decided to be, as Mr. Parker has pointed out, later additions.

A careful examination of the exterior of the choir aisles, and eastern face of the chapels of the great transept, of which rather more than one bay is of St. Hugh's work, proves beyond question the correctness of Mr. Parker's view, that the small thin buttresses bisecting each bay are very early additions, not contemplated in the original design, but found necessary to resist the pressure of the intermediate ribs of the vault of the aisles, which in these bays is cinquepartite, adapted to the coupled lancets which light them. The drip moulding of these lancets is supported on three shafts, one between the two windows, and one on either side. Of these, as far as St. Hugh's work extends, the central shaft is built against and concealed by this intermediate buttress; but as soon as we pass beyond St. Hugh's work in the chapel wall of the transept, the arrangement of the shafts is altered. There are four shafts instead of three, one being set on either side of the intermediate buttress, which is thus shown to be no intrusion, but to belong to the design as then modified in conformity with the experience gained in building the choir. This fact is of very great importance in fixing the approximate date of the aisle vault; for it shows that a knowledge of the necessity for these small buttresses, which is simply due to the thrust of that vault, and their introduction in the design was anterior to the continuation of the work of the eastern transept sus-

ing ribs of the Choir are similar in section to the undoubtedly original ribs of the transepts, though deprived of the toothed ornament. This would suggest the idea that the Choir vaulting was

reconstructed after the disaster of 1237, upon the still remaining springers of Hugh's work—following his mouldings, but omitting their enrichments. G. G. S.

<sup>9</sup> “Archæologia,” Vol. 43, Part 1, p. 90.

pended at St. Hugh's death. In the metrical life of St. Hugh, printed and edited by Prebendary Dimock, these transepts are described as fully complete, even to the great round windows in the north and south fronts and the painted glass which filled them. This biography was written in the lifetime of the second Bishop Hugh, him of Wells (brother of Bishop Jocelin, the chief builder of Wells Cathedral), *i. e.*, before the year 1235, and thus the building of the transepts is fixed very early in that century, and the vaulting of the choir aisles earlier still.

A doubt arose as to whether the greater buttresses of the aisles had not been made to project further than was originally designed. On closer examination, however, the appearances which led to this suggestion were found to be due to extensive repairs in modern times, which have obliterated the details of the lower portions of these buttresses.

IV. *Transeptal Towers.*—There is reason to believe that it was the intention of St. Hugh's architect to have erected a tower over the extreme bay of each limb of the eastern transept, thus producing an arrangement analogous to that seen at Exeter and Ottery St. Mary's. The increased thickness of the main walls at this part, the transverse wall cutting off the last bay of the northern limb, the arrangement of the windows, and other indications lead to this conclusion. To the north this design was simply discontinued at the height of the transept walls, and the whole was terminated with a gable. But in the southern transept not only was this done, but the transverse walls and arches of the intended tower were taken down, and the whole of the rude internal walls thus exposed to view were richly faced in the later Early English style of the middle of the thirteenth century. A comparison of the mouldings, and foliage of the two adjacent bays in this south-east transept, as well as of the great northern and southern gable ends, affords a very instructive architectural lesson.

Another reconstruction which deserves attention is that of the great angle piers of the eastern transepts. These were taken down and rebuilt to a considerable height by the builders of the presbytery or angel choir, c. 1256, only one of the four original Early English capitals remaining, that at the south-west angle.

V. *Minor alterations.*—Many other alterations effected

from time to time in the earlier work may be observed: among which may be specially noticed the reconstruction of the triforium of the western bay, and the casing and strengthening of several of the clustered piers of the aisles after the fall of the central tower, as well as the shortening and corbelling of the vaulting shafts of the choir, on the introduction of the stalls, erected by Treasurer Welbourn between 1362 and 1376. These shafts originally rose from the floor, where their bases still exist beneath the flooring of the upper row of stalls.

To sum up the general results of this examination of St. Hugh's work, Mr. Parker's two leading questions were—(1), Whether the aisles were from the first intended to be vaulted? (2), Whether the same was the case with the central space?

On the first question it was felt that there was no room for doubt. The argument from the existence of a triforium, it is true, is not absolutely conclusive, as Mr. Parker remarked that a level timber floor and ceiling may have been intended. Such a finish, however, to an aisle surmounted by a triforium is nowhere met with in England, and is very unfrequent elsewhere. The strongest argument in favour of the aisles having been intended for vaulting from the commencement is that in churches of the first class, among which that of Lincoln must certainly take a very high place, from Edward the Confessor's Abbey at Westminster downwards, the aisles were invariably vaulted. To suppose that St. Hugh or his architect proposed to omit so essential a feature would be to attribute most markedly retrogressive ideas to one whom we properly associate with one of the most mighty onward steps ever taken in the architecture of our country.

As to the central space, there is no doubt that in many large churches this continued unvaulted, but not to mention the vaults of St. Cross, the Choir of Canterbury, and the Cathedral of Durham, the whole of this very Cathedral had received a stone vault from the hands of Bishop Alexander, half a century before St. Hugh commenced his reconstruction, and it is difficult to conceive that in this instance also, the designer of a fabric evidently intended to surpass all existing architectural works, should have taken a step back-

wards, and intentionally deprived his church of so essential a feature, and one with which the Bishop must have been so familiar in the churches of his native land. In Sir Gilbert Scott's words, "St. Hugh's great work may be supposed to have been on the very crest of the wave of progress, and accordingly, we find its transept to have been vaulted, and its choir designed in strict conformity with it."

If any further proof is needed of the existence of a vault over the central space of the choir, the words of the author of the *Metrical Life* are decisive.

Nam quasi pennatis avibus testudo locuta  
 Latas expandens alas, similisque volanti,  
 Nubes offendit, solidis innisa columnis.  
 (863—5.)

Whatever the precise meaning of the writer's not very intelligible metaphors may be, one thing at least is clear, that the "testudo," or vaulted roof, formed part of the original design, and that St. Hugh finished it himself, "and did not, like so many other mediæval builders, leave it to be added (or not added) by another generation."<sup>1</sup>

<sup>1</sup> "Gentleman's Magazine," November, 1860, p. 463.