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THE ARCHITECTURAL HISTORY OF THE CATHEDRAL AND MONASTERY AT WORCESTER.[1]

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PART I.—THE CATHEDRAL.

CHAPTER I.—FROM THE FOUNDATION TO THE DEDICATION IN 1218.

Worcester Cathedral, although in actual length holding only about the fourteenth place in a list of great English cathedrals and conventual churches, is inferior to very few in interest and value, when considered with respect to the history and practice of mediæval architecture.

It was originally a cruciform Norman church, with nave, transepts, and an apsidal eastern extremity. The aisles of the crypt were carried round the apse, and probably led to one if not to three radiating chapels. There was also an apsidal chapel attached to the east wall of each transept, and a central tower. The plan of the crypt shows that there were three severies in the eastern arm of the cross, besides the apse, which had seven pier arches. Each transept had two severies; the nave had nine severies, as now. The choir screen was fixed at the second pier of the nave, reckoning from the tower. Thus the seats were placed under the tower, as I have shown upon various occasions to have been the usual position in Norman churches, their presbytery only being elevated upon the crypt.[2]

[1] Read before the Archæological Institute of Great Britain and Ireland, at their Annual Meeting at Worcester, in July, 1862.

[2] The choir remained in its ancient position till the reign of Queen Mary.

Of this Norman church the crypt remains, and also the walls of the transepts, the outer walls of the nave aisles, much altered and disguised, and various small portions that will be pointed out below. Also of the western severies of the nave, two entire on each side. The mediæval changes of the structure were briefly as follows. The Norman presbytery was replaced by an Early English structure of singular beauty, commenced in 1224, extending to more than double the length of the original eastern building, and giving to the cathedral the distinction of an eastern transept, equal in height to the central alley of the presbytery, which is only to be found elsewhere in England in the late Norman of Canterbury (c. 1096), and York (c. 1160), and in the Early English of Lincoln (c. 1186), Salisbury (c. 1220), Beverley, and Rochester.[3] On the Continent the only known examples of this feature are S. Benoit sur Loire (c. 1080), and Cluny (c. 1089), the former of which was doubtless the prototype of the English examples.

The Norman nave of Worcester was, with the exception of the two western severies on each side, rebuilt; its north side in the early part of the fourteenth century, the south side at the latter part. The transepts were next brought into their present state of mixed Norman and Perpendicular, and the tower carried up. The whole cathedral offers most instructive examples of the methods of restoration and construction employed by the mediæval architects, as I will endeavour to show in the following pages.

The documentary history of the structure consists for the most part of certain entries in the Annals of Worcester, printed by Wharton, in 1691, in the Anglia Sacra; of a few notes in Leland's Itinerary; and some extracts of collegiate documents made by Dr. W. Hopkins, a prebendary of Worcester from 1675 to 1700, the originals of which are missing. All these passages are to be found in the histories of this cathedral by Abingdon, 1717; Browne Willis, in his "Mitred Abbies," 1718; and "Cathedrals," 1742; Thomas, 1736; Green, 1764 and 1796; Wild, 1823; Britton, 1835, &c.,

In treating of the ancient church I shall, therefore, often employ the word presbytery for the part which is now called the choir.

[3] The nine altars at Durham, and the eastern termination of Fountains Abbey, are also high transeptal structures, but as the central building does not cross them and pass eastward, they belong to a different class of transept.

who copy the one from the other in succession in the usual manner, each applying the passages according to their own views and the manner of their times, an example which I shall follow by now submitting my own interpretations and applications, and comparing these historical notes with the architectural character of the existing buildings.

That Bishop Wlstan began a new Norman church or minster is shown by two documents of his own. The date of the actual commencement of the work in 1084, depends upon the Annals "1084, incœptio operis Wigorn. monasterii, per S. Wlstanum," in which we also find the year 1088 assigned to the entry of the monks into the new minster.

But Wlstan's deed of gift conferring the manor of Alveston on the monastery, declares that he, desiring to amplify the monasterium of S. Mary, erected by his predecessor Oswald,[4] not only by *the construction and ornamentation of a church*, but by augmenting the number of monks,[5] had induced more than fifty to join him since his coming, when he had found little more than twelve. As it thus became necessary to increase the lands for their maintenance, he had obtained from King William the Elder, xv hides of land termed Alveston, and has given this for the maintenance of the brethren, and has laid this gift on the altar of the Holy Mother of God. The date of this document runs as follows:—"in the year of the incarnation M.LXXX.IX indiction XII. the third year of the reign of King William the Younger, the twenty-seventh of my episcopate, *the first year of our entrance into the new minster which I have constructed* in honor of the Mother of God, and the day of the Holy Pentecost."[6]

[4] Oswald, bishop of Worcester, introduced monks into Worcester cathedral and rebuilt the church, in 983, with monastic buildings. He dedicated the church to S. Mary, and was buried therein, notwithstanding his translation to the Archbishopric of York. His successor at York, Ædulfus, raised his bones and placed them in a precious shrine in consequence of reputed miracles. The shrines of Oswald and Wlstan were the principal attractions of the devotees of the middle ages to Worcester cathedral until the Reformation.

[5] *De Ealdestune*, Ego Wlstanus . . . Wigorniensis ecclesiæ pontifex monasterium sanctæ Dei genitricis Mariæ à piæ memoriæ, beato scilicet Oswaldo, predecessore meo in sede episcopali construc-tum, majori honore et dignitate amplificare cupiens, non solum in *ecclesiæ constructione* et *ornatione*, verùm etiam ex monachorum ibidem Deo famulantium illud locupletari studui augmentatione.

[6] Anno dnice incarnacionis M.LXXX.IX° indictione XII^ma^ regni autem regis Willi junioris tercio epatus v° mei XXVII. ingressionis n're in novum monast'ium q^d^ construxi in honore ejusdem dei genitricis primo die sce Pentecostes.

This elaborate date, of which all the clauses are consistent with May 20, 1089, also agrees with the date 1088, given to the entrance of the monks into the new minster in the Annals of Worcester, supposing that event to have happened after May 20.

The word *monasterium* is usually applied

1092. Wlstan appoints a synod to meet in the minster or *Monasterium* of S. Mary, "*in the crypts which I have built from the foundations* and by the mercy of God have since dedicated." [7]

Malmsbury, who lived in the first half of the twelfth century, relates that when the work of the great church which Wlstan had begun from the foundation, had so far advanced that the monks might migrate into it, he commanded the old church, which the blessed Oswald had made, to be unroofed and pulled down. The historian puts a speech into his mouth upon this occasion, which has been frequently quoted, and which, if not in the genuine words of Wlstan, is valuable as evidence to the inferiority of the Saxon edifices to the Norman, having been written when so many of the Saxon buildings were in existence or in the historian's memory.[8]

It is probable that the new church was built near to the old one, perhaps to the east of it; and that it was necessary to clear it away to make room for subsequent operations.

Wlstan died in 1095, and eight years after, in 1113, a fire occurred in Worcester, which is said to have burnt the city, with the principal church and castle.[9] Malmsbury relates these two events with additional particulars:—"S. Wlstan," he tells us, "lies between two pyramids, having a handsome stone arch turned above him. Over this structure a wooden beam projects from the wall, which has iron hooks fixed into it." It may be observed that an arch surmounted by two lateral pyramids is a usual form for a monumental canopy. The historian goes on to inform us that after the lapse of not a few years, a fire

to a *church* as well as to a *monastery*, *e. g.*, in the Annals of Winchester, "sequenti die ... cæperunt homines prium *vetus* frangere *monasterium*, et tractum est totum in illo anno excepto porticu uno et *magno altari*."—Vide my Arch. Hist. of Winchester, p. 18.

[7] 1092. Ego Wlstanus ..... decrevi Synodum congregare in Monasterio S. Mariæ, in *criptis quas ego a fundamentis ædificavi* et per misericordiam dei postea *dedicavi*. Ann. Wig.

Upon this passage Green rightly remarks (vol. i. p. 178):—"In criptis *quas*, &c. Such is the reading in Wharton, Hearne, and Wilkins edition of the acts of this synod. So that there is no pretence of inferring hence, as some do, that this minster was anciently entitled, S. M. in Criptis, unless the reading in this charter had been *quod* ego, &c." But not being able to understand that the crypts of churches contained altars, which we now are able to prove from abundant evidence, he imagines that the monks applied the term *cripta* to the vaulted aisles of their churches, following Stevens, who, in the English Monasticon (App. 141, 146), translates *cripta*, "vaulted isles."

[8] Vide my Arch. Hist. of Winchester, p. 34.

[9] Ann. Wig. & Flor. Wig.

(the one just mentioned) in the town, was, from carelessness, communicated to the church, and totally consumed the roof. The lead was melted, the planks converted into charcoal, and beams as large as whole trees fell to the pavement. He dilates upon the supposed miraculous preservation of the Saint's tomb in the midst of this ruin, which, after all, is not incredible, seeing that in great fires the accumulation of falling material is often found to protect combustible and delicate articles from injury. This anecdote shows, however, that the presbyterium of the Norman cathedral was roofed in and completed at the period of the fire, and had probably been finished some years before.

The annals of Worcester next inform us that in 1175 the new tower of Worcester fell.[1] In 1201 miracles began to be performed at the tomb of Wlstan on the xiv. kalend of February, which for a whole year and more increased to such an extent that it is said that sometimes fifteen or sixteen sick persons were cured in one day. This is important only as showing the growing veneration for Wlstan, which became so fruitful a source of revenue to the cathedral, and enabled the present structure to be completed. In the next year, however, the cathedral church again suffered from fire, and was, with all its adjacent offices, and great part of the city, consumed on the fifteenth kalend of May. A commission appointed by the Pope to inquire into the miracles of S. Wlstan, visited Worcester on the day of S. Egidius. In consequence of their report, Wlstan was canonized at Rome on the ninth kalend of May, 1203, with great solemnity. King John visited his tomb in 1207, with great ceremony, and having performed his devotions there, gave 100 marcs towards the repair of the cloister and offices, which, as we have seen, had been destroyed five years before by fire. The cloister was probably of wood, but there are abundant remains to show that the monastic offices were built of stone in the Norman time before the date of this fire. Thus the chapter-house is a stone-vaulted Norman building, and the vaults under the refectory are of very early Norman construction. The passage which leads from the south-east angle of the cloister under the end of the refectory has a beautiful enriched Norman archway at its northern

[1] Turris nova Wigorn. corruit. (Ann. Wig.)

extremity; and the passage between the chapter-house and north transept is of early Norman construction. There are also Norman fragments in the ruins of the dormitory, which had a Norman vaulted sub-structure. Possibly, some of the buildings were of wood, raised upon these Norman vaulted sub-structures, and the roofs of all of them, as well as of the church, must have suffered. The passage at the north-west angle of the cloister is of Pointed Norman, subsequent to this fire.

King John died on the 19th of October, 1216, at Newark, and was buried in the cathedral church, before the great altar, between the tombs of S. Oswald and S. Wlstan, to which the chronicler adds, "that the saying of Merlin might be verified—*He shall be placed between the Saints.*"

Lastly, "in 1218, the cathedral church of Worcester was dedicated on the seventh of June, in honour of Mary the Holy Mother of God, of Saint Peter, and of the holy confessors Oswald and Wlstan: that is to say, the great altar in honour of S. Mary and S. Oswald; the medium altar in honour of S. Peter and S. Wlstan; in presence of the young King Henry and of a large assemblage of distinguished ecclesiastics and nobility duly enumerated by the chronicler. On the same day, after the dedication, the body of the glorious confessor S. Wlstan was translated into a feretrum or shrine." This receptacle had been in preparation for some years, for it is recorded that in 1216 the Earl of Chester's followers plundered the cathedral church, and exacted 300 marcs from the monks, for the payment of which they were compelled to melt the work of the feretrum of S. Wlstan. From this dedication we may infer that the structure of the church from east to west was now complete, and also that the repairs consequent upon the two fires and the fall of the great tower had been carried out. The subsequent architectural history of the church records the enlargement of this complete structure eastward, and the reconstruction in new architectural fashions of the nave, transepts, and other parts.

Before pursuing this historical evidence, it will be better to examine the existing building, for the purpose of recovering the plan and arrangement of the complete church thus dedicated. (Vide the plans, figs. 1, 2, 3.)

The crypts, the undoubted work of Wlstan, remain in

perfect order, with the exception of a portion of the eastern part, which is filled up with earth and burial-places, and from them the plan of the Norman presbytery can be traced. The crypt has a central part under the presbytery with an apsidal termination. The side aisles are continued round the apse, furnishing a procession path; crypts were also placed beneath the apsidal chapels, which projected eastward, one from each eastern wall of the transepts. Of these, the northern one is completely destroyed, but I am informed that the foundations of its crypt were discovered in the late repairs. The crypt of the southern one still exists. The Norman chapel above it, however, was, in the thirteenth century, replaced by the Early English chapel or vestry which now exists, and at the same time the apse of this crypt was taken down, and the present square termination substituted. The foundations of its apse (traced some time since) were, however, again uncovered during the present visit of the Institute for the inspection of its members.

The straight walls of the central crypt are divided by the vaults and pillars into seven severies, and each lateral wall is pierced with three arches, which manifestly corresponded in position with the Norman pier arches of the presbytery above. These lateral walls are built of good ashlar Norman masonry; but several of the arches have been filled up with later rubble work to sustain the Early English piers above, for these latter not being placed so near together as the Norman piers were, it happens that some of them stand over the arches of the crypt walls, instead of being upon the piers, as shown in my plan of the crypt (fig. 2, and in fig. 4). The vaults spring from stone cylindrical Norman pillars, with plain cushion capitals, high bases, and square plinths. Square-edged arches spring in the transverse and longitudinal directions from each abacus, and the groin-edge of the vault is brought down between these arches, so as to rest on the abacus, resembling in this respect the other Norman crypts. The last pillar of the central row is in the centre of the apse, and from its abacus seven square-edged arches, with intermediate groin-edges, slightly acute, radiate to the pillars in the next rank, and these again are connected by other arches and vaults to the circuit wall of the apse, forming a unique and most picturesque combination.

There are but four apsidal crypts in England, which in chronological order are—Winchester (1079), Worcester (1084), Gloucester (1089), and Canterbury (1096). In all these the side aisles run completely round the apse. Amongst them, Worcester is remarkable for the multiplicity of small pillars employed to sustain the vaults. The side aisle has a row of small pillars running along the centre, which are not employed in the other examples. The central portion has three rows of intermediate pillars, whereas Gloucester and Canterbury have but two rows, and Winchester but one. Yet the width of the central crypt of Worcester is less than the others.[2]

This increased number of pillars, by diminishing the span of the arches and dividing the weight of the vault upon so many supports, enables the diameters of the pillars to be reduced, and gives greater lightness to the architecture. For the height of all these crypts is nearly the same : so that at Winchester and Gloucester the arches are flattened into ellipses, the pillars are low and squat, and the crypts appear as sepulchral vaults ; while at Worcester, where the arches are semicircular, and the pillars more slender, the crypt is a complex and beautiful temple.

It is true that at Winchester five ribs of the crypt vault also radiate from the eastern pillar ; but at Worcester the number of these ribs is seven. Also the intermediate lateral rows of pillars and the semicircular arcade which terminates them to the east, are employed in this crypt only, as already mentioned. I have analysed this arrangement at length, in a paper communicated to the Institute of British Architects (May 1, 1863), and published in their Transactions, to which I beg to refer.

I have there endeavoured to show that the central pillar, which is employed in English chapter-houses, of which that of Worcester is the earliest, but not on the Continent, was derived from the central pillar and radiating vaults of the English crypts we are considering.[3]

To appreciate the beauty of Worcester crypt, it must be seen when illuminated by fixed candles. The varied form

[2] The width of the central crypt is 30 ft. at Worcester, and 34, 32, and 36, at Winchester, Gloucester, and Canterbury respectively.

[3] In Canterbury crypt, subsequent to Worcester, radiating arches are employed, evidently copied from those of Winchester. They are not used in the crypt of Gloucester.

of the arches and vaults, and complex arrangements of the pillars, can only be thus observed. The architect of Worcester had certainly seen the crypt of Winchester, but in originality and taste was of a greatly superior order to the constructor of the latter. At the meeting of the Archæological Institute, one of our most distinguished members said that the crypt reminded him of the mosque of Cordova.

I have stated that the circumscribing aisle at the east end of the crypt is now blocked up, probably to allow of sepulchral vaults being formed in it. This prevents the possibility of ascertaining whether any or what kind of chapels projected eastward in the usual manner. The extent eastwards, however, of the high presbytery floor, makes it probable that the remains of a Norman apsidal chapel exists below it, and it is unlikely that the circumscribing aisle would have been built unless intended to lead to three chapels, or at least to one.[4] Foundations of walls have been traced lying at an angle with the walls of the south Early English eastern transept, in the nook formed by its western wall with the wall of the choir, and part of these walls were obligingly uncovered for my inspection. I was informed also that the base of a Norman shaft had there been seen *in situ* at the first excavation, and the head and jamb of a window, on which was painted an angel. Of this drawing a tracing was made, but the original was necessarily destroyed to make room for the new foundation of the restored wall of the transept.

These foundation walls do not indicate a lateral apsidal chapel, but they may have belonged to a tower, and thus show that Worcester apse, like Canterbury, was flanked with a pair of small towers, set at an angle with the direction of the building.

This is the more probable, because we are told that "in 1222 a mighty tempest of wind, rain, and thunder arose, on the feast of St. Andrew," and amongst other damage "threw down the two small towers of Worcester." (Ann. Wig.)

Besides the crypt, several detached traces of Norman structure remain in the church, which I will describe in order. These are shown in the plan (fig. 1), and indicated

[4] In my plan of the crypt, fig. 2, I have shown in their usual positions three radiating chapels, K, I, H. But I have no evidence to show that such chapels were actually built at Worcester.

by letters to which I shall refer. It is greatly to be regretted that the perishable nature of the sandstone of which this church was built, has compelled a series of repairs and re-casings of the exterior walls from time to time, which have utterly destroyed the evidence usually given by the junctions of different portions of masonry on the outside of a building, by which to judge of the changes of style and other alterations.

The late repairs have shown that the originally Norman flat square-edged turret buttresses at the north corners of the transept, which appear in the engravings of Wild and Britton, were casings of the real Norman ashlar, merely built against the surface without bonding, but following its outline. The original surface, in a decayed state, was found behind this casing, and exactly the same in plan.

The similar square-edged returns of the Norman work in the south transept, and in the west front, having decayed, were simply disposed of in the repairs of the last century, by cutting the whole down to a chamfered surface, thus converting the Norman angles of the transepts, &c., into imperfect octagons.

In the interior, the south transept preserves the rich Norman arch (at o, fig. 1) which opens eastwards into what was once the apsidal chapel, but is now an Early English one of rectangular plan. Later work and windows have been inserted into these walls, as we shall see below; but the trace of another large arch in the eastern wall above the one just mentioned, and of the same span, can be seen in the masonry below the clerestory string-course, and also in the gallery and roof behind, and its upper part is visible above the leads of the roof of the vestry chapel. This arch shows that the apsidal Norman chapel had a second story on the triforium level, with a similar chapel, as at Chichester, Canterbury, and elsewhere. The lower arch is richer on its western or outer side than on its eastern. It has been always visible on the eastern side, but its western side was only laid open during the visit of the Institute. The head of the corresponding arch of the north transept appears in the wall (at P).

The southern surface of the north wall of the choir (*d*), at its junction with the tower, is manifestly of Norman masonry, for it retains the springing voussoirs of the north-western pier arch of the Norman presbytery (at A, fig. 4); also part

of the jamb and the springing voussoirs of the Norman triforium arch, as well as the string-course and lower part of the jamb of the Norman clerestory. These indications are sufficient to show the relative levels of these members of the Norman architecture to the corresponding ones in the existing building, and have been judiciously preserved in the present repairs.

In the roof of the aisle of the triforium, above the north aisle of the choir (over *e*), the outer surface of the wall can be examined, and the Norman masonry will there be seen, with its characteristic string-course, at the junction of this wall with the tower.

In the north angle of the walls at the west end of the south aisle of the choir, against the south-east tower pier, (at *c*) there is a plain Norman shaft with cushion capital.

At the south corner of the east end of the roof of the north triforium of the nave (over *f*), the angle of the north-west Norman tower pier still projects, with its characteristic string-course, exactly like that which remains in the transept below at the window-sill level. All these evidences show that the present tower piers retain in them the core of the Norman tower piers. A Norman shaft and capital remains at the north-eastern angle at the end of the north aisle of the nave (at *g*). Another on the outer face of the north door of the nave on the west side (at *h*), showing that that doorway is the Norman doorway transformed. In fact, this was the usual door to the cemetery, which in this cathedral was on the north side.

Great Norman shafts project from the walls of the nave on its north side (at *i*), and on its south (at *k*), opposite to each other, at the centre of the second pier from the west. A third, similar to these (at *l*), is in the south side aisle, in the centre of the same pier. These show that the first Norman nave extended to this point at least. But besides this evidence, the south wall of the side aisle of the nave has a series of five Norman arched recesses (*n* to *o* and C, D, fig. 5), one opposite to each of the present pier arches. These recesses are 9 ft. 3 in. wide, and 2 ft. 6 in. deep. Their jambs are 8 ft. high, and they are each surmounted by a plain square-edged semicircular arch, formed of excellent masonry in red sandstone. Two of these at the east end are filled up with monumental arches of the period of the present south

architecture of the nave. This is enough to show that the semicircular arches existed previously, and could not be a subsequent addition, if indeed that were not sufficiently shown by the traceried windows of the fourteenth century that surmount them. As this is the wall next to the cloister, the arches could not have been intended for windows. They were probably meant to receive the monumental arches of distinguished persons, in the same way as at Hereford, &c. But their positions show that the piers and pier arches of the Norman nave occupied the same places as the present ones.

The two western compartments of the nave on each side, including both their side aisle walls as well as the side aisle vault on the south, and the vaulted passage beyond it, which led from the cloister to the infirmary, are in a different style from the Norman fragments just enumerated. They belong to a transition Norman, in which pointed arches are used, mixed with semicircular arches, and are treated with curious local peculiarities. These have perplexed some antiquarians, who have thought it necessary to suppose that the arches have been altered from semicircular to pointed. But a careful examination of the whole of this work, including the external cloister passage, will show that it is an entire and consistent specimen of style.

We may therefore assign this western work of Worcester to the last quarter of the twelfth century, when the pointed arch was introduced, but was treated in the Norman manner. Thus in the vault of the side aisle the wall arches and transverse ribs of the vault are pointed, but the diagonal ribs are semicircular, the windows round-headed. There is a rich pointed Norman doorway with zig-zag work at the entrance of the vaulted passage from the cloister. In the nave the compartments have pointed pier arches, a triforium in which the outer order of the arches is marked by a pointed arch, but the subordinate divisions are round-headed. Finally, the clerestory above has a round-headed central opening, ornamented with Norman shafts and zig-zag work in the arch. This opening is flanked by two narrow pointed openings.

In the pier arches and triforium arches a plain round molding is employed, shown (at c) in the plan of the pier (fig. 3), which runs without a base up the pier and continuously over the arch, forming an external order or frame to it. A similar molding in front of this runs by the side of a triple

group of vaulting shafts up to the clerestory string, but is there cut off by the later vaulting ribs.[5] The side aisle vault shafts of similar pattern show that this molding was intended to form a continuous wall rib. The older Norman shaft which marks the junction of these transition compartments with the ancient nave,[6] is cut off at the triforium string, and the transition Norman vault shafts set upon it, bearing their own florid Norman capital at the level of the clerestory string. Upon this rests the fourteenth-century group of vault ribs.

It is evident that when these compartments were built, it was intended to vault them with stone in the manner of the south side aisle, for the group of vault shafts in the central nave is precisely similar to those in the side aisle.

Continuous moldings are in Norman work usually confined to the inner arches of doors and to windows. But I have observed the molding just described as framing a group of shafted pier arches in several cases in the west of England—as at Gloucester, the north side aisle of the choir at Lichfield, and at Bredon church near Worcester—the latter evidently the work of the architect of the western compartments of the cathedral.

The late repairs have disclosed the traces of lateral Norman doors (K, K) in the west front, at the end of the side aisles of the nave, and the traces of a large central doorway (I) are also visible in the masonry under the great western window. The latter, which was first inserted in 1380 in connection with the work of the present nave, descends so low as to cut off the upper part of the doorway arch. The sill of the window is carried by an arch of construction, on each side of which the jambs of the great arch of entrance are visible in the masonry. Norman round-headed windows also (in an imperfect and altered condition) still remain above the lateral doorways at the triforium level. Thus the western wall is proved to be in substance the original Norman one, and it is plain that no western towers terminated this church.

[5] The plan fig. 3 does not show this second continuous molding, and the triple vaulting shafts, because the fragment of the older Norman pier, A B, occupies their places in this and the opposite pier. The great shaft A is in the position of the triple vaulting shafts of the piers to the west of it, and the square edge, B, corresponds to the continuous molding of the latter piers.

[6] Shown by the thick black line in the section, fig. 4, and in the plan of the south pier, fig. 3.

There are no traces of their existence in the triforia or elsewhere.

If we now return to the transepts, we shall find their walls provided with groups of vault shafts, rising from the pavement to the clerestory level, and of the same form as those of the transition Norman work at the west end of the nave. In the north transept the profile of the triple vaulting shafts (at *s*, *t*, *v*), and of the rounded molding behind them, is exactly the same as in the nave. In the south transept (at *p*, *q*, *r*), there is a slight variation, the nook which separates the central vault shaft from the lateral ones is more deeply sunk, and in place of the rounded molding, which is little more than a quarter of a circle, we have a decided engaged shaft, with a keel similar to the front vaulting shaft. All this indicates that this work of the south transept was taken in hand after the north.

The bases of these vault-shafts, now sunk below the pavement,[7] have been uncovered for inspection, and in the south transept are precisely similar to those of the west end of the nave. In the north transept the shaft (*v*) is continued without base to a rough stone, having been probably concealed by a monument or by some fittings in the original structure. The capitals of these shafts are of the same character as those at the west end.

The walls of the transepts internally were, at my request, scraped of their plaster, by which it appeared that the lower part is of uncoursed rubble work, roughly laid with wide joints of mortar. At the level of the lower window-sill a string-mold of the older Norman form runs along the wall, evidently in its construction contemporary with this rubble facing. The groups of vaulting shafts above-mentioned are of good ashlar masonry, manifestly a subsequent insertion, engrafted into the rubble. Their ashlar courses extend laterally along the face of the rubble to a greater or less distance, apparently to consolidate it where required.

The upper part of the east and west walls of the transept has been tampered with by the insertion of Perpendicular tracery and windows, and the addition of the present vault in the fourteenth century. The north gable was entirely rebuilt in 1748, with an enormous and ill-designed Perpen-

[7] The transept pavement was raised to its present level in 1748 (vide below, p. 122).

dicular window. This, in its turn, has been removed during the past year, and in its place a lofty window of the Salisbury cloister type substituted.[8] The south gable has round-headed Norman windows, with zig-zag work in the heads in the lower part of the wall. These were blocked up by the building of the Treasury in 1377, described below. Above them is a large window which had been filled with late Perpendicular tracery, but has been lately restored as an Early English window.

At the south corner of each transept is a circular stair-turret, which is remarkable for its unusual projection into the church. It is a plain cylindrical tower of good ashlar work, carried up with a straight joint at its junction with the rubble wall.

The scraping of its walls disclosed the fact that it is built of stones of two colours, the one a white or rather cream-coloured stone, the other a green stone. These are laid in bands at the lower part, not regularly, but above the doorway the courses are for a short distance alternately white and green in horizontal stripes, after the manner of the Cathedrals of Pisa, Siena, and other Italian examples of the eleventh and twelfth centuries.[9]

The striped masonry is not employed in the fragments of the Norman work of the choir, already described at o, *c*, *e*, *d*, and the shaft at *g* is white. But the early Norman part of the south pier near the west end of the nave (*k*, *l*) is constructed of striped masonry (at A, B, H, fig. 3), in green and white, like the lower part of the turret staircase in the transept.

The Norman shaft on the north side of the nave at *i*,

[8] The choice of this style is greatly to be regretted, for there is not a single example of it about the cathedral, and, to judge from the imperfect representations in the engravings of Hollar and others, this was certainly not the style employed in the original window. In all probability, the tracery of this north window and of the opposite one, was Perpendicular, in harmony with the vaults and the windows which remain in the side wall.

The Perpendicular style was mixed with the Norman in these transepts by the mediæval architects, in the natural course of the repairs required in the fourteenth century; but the gratuitous modern addition of an Early English window at one end, and an Early Decorated window at the other, was surely unnecessary and inconsistent with the history of the fabric.

[9] Mr. Perkins informs me that the white oolite of the cathedral was obtained from Bredon Hill at Bath; the green stone from Higley, above Upper Harley, on the Severn; the red sandstone from Holt.

The vaults of the Early English are of red sandstone, and those of the later work of a light tufa, of a pale cream-colour, from Stanford, or from Soustons rock and Falkestone.

retains some green and white stones, but this shaft has evidently settled very considerably, and has been at the lower part rebuilt in red sandstone. Its lateral pilasters (corresponding to B, fig. 3) are re-constructed in a kind of long and short work of red sandstone, adopted for the purpose of more securely holding together the ruinous structure behind it. This is probably a very late repair. The pointed Norman compartments at the west end of the nave are built in green and white, but the colours are arranged upon a different principle from the striped walling used in the older Norman fragments just mentioned. The triforium and clerestory of these compartments were not yet scraped at my last visit, and I cannot therefore describe them. In the pier (vide plan of pier, fig. 3), the moldings or nook-shafts (D and F) are of white stone throughout, not in long pieces, but in courses ranging with the masonry of the remainder of the pier (as C, E, G), which is green. The whole of the capitals and abaci are white, the entire molded pier-arch and wall above it green, and the triple vault-shaft green. In the side aisle the triple vault-shafts green, with white capitals and abaci. The vault, rough rubble, with green ribs. Thus the striped principle is wholly abandoned, and the colours distributed with respect to the architectural members.

Traces of similar parti-colored work appearing in the chapter-house, a compartment was obligingly cleaned of whitewash at my request, by which it appeared that the masonry of the Norman arcades and niches is built of the same stones, the colours of which are carefully managed so as to display the architecture and ornament the walls with alternate stripes of color.

It is evident from the mixture of the early Norman and transition Norman in the transepts, that either they were carried up only to a certain height while the nave was being built, and afterwards completed at the latter end of the twelfth century, by the same workmen who erected the western compartments of the nave, or else that they were damaged by the fall of the tower in 1175, above recorded. This date coincides so well with the probable date of the west end work, that we may well suppose that this accident may have made repairs necessary.

In recapitulation, we gather from the preceding remarks that Wlstan began the presbytery in 1084, had completed

and dedicated its crypt in 1089 for the performance of the services, that the superstructure of the presbytery was roofed in at least before 1113 (when the fire consumed the roof), and probably some years earlier; and that the nave and lower parts of the transepts, by the character of the fragmentary portions that remain, must have been completed in the first three quarters of the twelfth century. The tower, probably the centre one, that fell in 1175, is called "*nova turris.*" The western compartments of the nave and Norman repairs of the transept belong to the last quarter of the twelfth century.

In illustration of this history, I may mention that the Norman naves of Ely and Peterborough are both terminated at the west end with works in which the Pointed arch is employed, while the treatment of it in moldings, zig-zag work, capitals, &c., is wholly Norman. This work at Ely is recorded as due to Bishop Ridel (1174—1179). Also the works at Canterbury, begun in 1175, after the fire, are wholly treated with the Pointed arch, excepting where the Round arch has been forced upon the architect by the mixture of his new work with the old, as I have explained at length in my History of Canterbury Cathedral.[1]

CHAPTER II.—FROM THE DEDICATION TO THE COMPLETION OF THE EARLY ENGLISH WORK.

After the dedication in 1218, we find various wondrous miracles of S. Wlstan recorded in 1220 and 1221. In 1223 a dispute arose between the Bishop and Convent upon several questions, amongst others, concerning the disposal of the profits of the tomb and shrine of S. Wlstan, whose reputation as a worker of miracles was manifestly increasing, so as to make the offerings extremely valuable. In 1224, it was agreed between the parties that the profits should be equally divided between the Bishop and Convent, and that honest clerks or monks should be appointed on the part of the Bishop and Convent respectively, to take charge of the receipts. In this same year "was begun the new work of the front of the church of Worcester, Bishop William laying

[1] P. 91.

the foundation stone."[2] This was six years after the dedication.

In mediæval documents, the front of a church is usually the east end, and there can be no doubt that the *novum opus* here mentioned is the Early English work at the east end of the cathedral, to make way for which all the Norman work east of the tower was taken down to the level of the crypt—this new work, erected on the same site, standing upon the crypt, but with wider arches. Beyond the site of the crypt, and therefore on a lower level, this work was extended eastward in the same style, to a total length equal to double that of the Norman presbytery (exclusive of the probable Lady Chapel of the latter), and so adjusted as to place the central tower of the church exactly midway between the east and west extremities of the entire building. Eastern transepts, as already stated, were adopted in this addition to Worcester.

The height of the walls is the same as in the Norman building, but the relative altitudes of the three stories, pier arch, triforium, and clerestory, are different. The respective levels of these stories are, as nearly as can be ascertained, the same in the Norman compartments at the west end of the nave, and in the fragment of the Norman presbytery wall (A, fig. 4), already described. But the elevation of the pavement of the presbytery upon the crypt, about four feet above the nave, diminishes the height of the pier-arch compartment by that quantity. The string moldings and floors of the triforium and clerestory galleries were therefore apparently at the same level respectively throughout the Norman church.[3]

[2] Ang. Sac. pp. 486 & 543; the latter gives the original "Compositio inter Episcopus et Monachos," &c., at length. "Incœptum est novum opus frontis Wigorn. ecclesiæ. Episcopo Willielmo jaciente fundamentum." (Ann. Wig. p. 486.)

[3] In the present church, the relative levels of the three floors in the nave and choir are disposed differently from those of the Norman. The heights above the pavement of the triforium floor, the clerestory floor, and even the height of the clerestory wall to the apex of its wall rib, are very nearly the same respectively in the nave and in the choir. Consequently, as the pavement of the nave is about four feet lower than that of the choir, all the members and floors in the nave are lower than the corresponding ones in the choir by that quantity; yet the central ridge of the vault of the nave is rather higher than that of the choir. This arises from the fact that the transverse vault-cells of the choir are horizontal. But in the nave these vault cells are greatly inclined downwards from the central ridge to the walls. These peculiarities are correctly shown in the sections and elevations of Wild and Britton.

But in the present choir, the piers being more widely spaced than the Norman, the arches are nearly double the span, and being pointed, rise higher, and thus the triforium floor is thrown about six feet above the Norman level. The altitude of the triforium story is, however, less than in the Norman one, and thus the clerestory floor is only about three feet higher than in the Norman church. The triforium and clerestory of the choir and Lady Chapel are at the same levels respectively, and the design of these two portions of the building alike, yet their respective pier arches are of a totally different proportion. The width of each severy in the choir (20 feet) is much greater than in the Lady Chapel, where it is 15 feet 6 inches—nearly as four to three. In addition to this, the pavement outside the crypt being three feet and a half lower than in the choir, gives an additional height to the piers of the Lady Chapel—those of the choir being 16 feet high, and of the Lady Chapel nearly 20. The arches of the two spring from the same level; but as the latter are narrower, so they are more acute than those of the choir.

The Lady Chapel thus acquires a grandeur and loftiness of appearance greatly superior to that of the choir, whose arches appear sprawling in comparison with it.

The style of this Early English work is as nearly as possible the same from one end to the other; and the frequent repairs, more especially of the outer surface (which, from the perishable stone employed, has been repeatedly renewed and altered since its first construction), have rendered it impossible to detect those changes in the masonry which, in better preserved buildings, enable us to show interruptions of the work, and determine the manner in which it was carried on.

The only disruption now apparent is in the north and south aisle wall in the middle of the eastern severy of the choir. But this is sufficiently accounted for by the fact that the whole structure to the west of this settlement is built upon the walls of the Norman crypt; and the remainder eastward, which stands outside that crypt, was founded upon the open ground of the old cemetery, which has necessarily produced unequal settlements.

The piers of the work are of various plans, but are alike respectively on the north and south. This is also the case

with the parts of Salisbury Cathedral east of the great transept, and in several other examples of this period. The pier-arch moldings are also of two patterns, the one very nearly the same as those of the choir and presbytery of Salisbury, and, like them, having one of the ribs flanked by a double range of dog-tooth. This set of moldings, which has a hollow in the soffit, is given to all the arches from the tower to the small transept, except the eastern on each side. The latter and all the pier arches of the Lady Chapel have another pattern, equally rich in the number and succession of ribs and hollows, but wanting the dog-tooth, and having a projecting rib in the soffit.

The triforium moldings are the same throughout the whole of the Early English work at Worcester. The clerestory moldings have some slight variations.

The transverse vault ribs of the side aisles and centre of the work between the great tower and the small transepts (namely, the present choir) have a hollow mold in their soffits; and this is also the case in those pier arches of this work which have the dog-tooth. But the transverse vault ribs throughout the remainder of this work—namely, the eastern transept and Lady Chapel—have a projecting rib in the soffit, corresponding to the moldings of their pier arches.

The order in which this Early English work was erected may be determined from this distribution of the hollow soffit and ribbed soffit to the transverse ribs and pier arches of various parts of the church.

The ribbed soffit is given to the whole of the Lady Chapel, to the four great transverse ribs of the crossing compartment of the small transept, and to the lateral arches, v v (fig. 1), by which the side aisles of the choir open to this small transept. It is also given to the eastern arch (4, 5) of the choir, and to the similar and opposite arch on the north. The piers (4) on which this arch rests stand outside the wall of the crypt (as shown at F, fig. 2), on a block of masonry erected to receive them.

The part of the building to which the ribbed soffit is confined, is thus shown to be a complete structure, capable of being separately erected, and of standing alone, and of bearing its vault; and the one pier arch (4, 5) on each side westward of the small transept serves to buttress the great arch (5, 6)

and its opposite. In many junctions of two structures erected at different periods, the pier arch story of the first portion, and sometimes the triforium above it, is continued in this manner beyond the clerestory and central vault, as in the nave of Westminster Abbey.

The masonry of the spandrils of the south pier arch (4, 5) also shows that the eastern end of the spandril was built first, for the junction line of two parts of masonry remains sloping from the east downwards to the west.

Also the vault of the Lady Chapel is of much earlier and rougher construction than the remainder of the vaulting of the eastern work. It is of a very light tufa in rounded blocks, so rude as not to admit of being allowed to remain, denuded of its plaster. The vaulting of the small transept and choir presents a continuous surface, and has been completely scraped.

The ribbed soffit, in fact, is confined to the portion of Early English work which is founded upon the open ground of the cemetery, and was capable of being erected complete, without disturbing any more of the existing Norman presbytery than the circumscribing aisle and radiating chapels. The hollow soffit, on the contrary, is used throughout the part of the Early English work which is based upon the walls of that portion of the crypt which was allowed to remain.

I conclude, therefore, that the ribbed soffit work was begun in 1224, and carried on without disabling the Norman presbytery and the high altar; so that the services of the church continued in their original place, until the completion of this first portion of the work made it necessary to pull down the Norman presbytery, and erect the hollow soffit work in its room, by which the Early English structure was connected with the tower.

This was the course of proceeding followed in the Early English eastern prolongation at Rochester, as I have ascertained by a careful study of that building during the meeting of the Institute in the present year. The plan of this Rochester work is very similar to that of Worcester, and it was completed for service in 1227, three years after the work of Worcester was commenced.

One striking difference between the two portions of the work is, that the lateral walls under the windows of the

choir side aisles are plain, but those of the eastern transepts and of the Lady Chapel have richly molded arcades, with elaborate and curious sculpture in their spandrils.[4]

The Early English windows of the side aisles, and indeed of the entire choir and Lady Chapel, were replaced by good Perpendicular windows in the fifteenth or sixteenth centuries, as shown in the engravings of Britton, Wild, and others. But these side aisle windows were originally triple lancets, and provided on the inside with molded scoinson arches, resting on slender detached shafts placed in front of the window wall, so as to give room for a gallery passing behind them, in the manner very common in clerestories, but unusual for windows near the ground. These arcades were allowed to remain in front of the Perpendicular tracery. Two of these windows are represented in Britton's plates, XI and VII. Some of them have three detached arches in front; others a single wide arch, which in the north aisle shown in Britton's plate XI, is richly foliated; others (as in Britton's plate VII) are plain. In the recent repairs the tracery, which was ruinously dilapidated, has been removed, and the original lancet lights restored after the pattern of one that had originally escaped the insertion of tracery.

The design of the walls of the eastern transepts is extremely beautiful. Two lofty triplets of lancet lights are placed the one above the other. The lower triplet has a gallery in front of it immediately above the arcaded wall, and at the same level as the sill of the adjacent side aisle windows. The upper triplet has a similar gallery at the level of the triforium. Rich clustered shafts rise from the lower gallery in two orders; the inner order carries molded arches to correspond with the heads of the lower triplet; the shafts of the outer orders rise from the lower gallery up to the impost of the upper triplet, grouping themselves with the shafts that stand in front of the upper triplet, and uniting in one group of capitals at the impost, where they carry a range of three arches with deep rich moldings. Thus the entire composition represents a gigantic window of six lights. These lights had been filled with Perpendicular tracery, shown in the engravings already referred to; but this in the

[4] I must leave to others who have made symbolical sculpture their especial study to describe the beautiful examples in the spandrils, bosses, and other parts of the cathedral.

recent repairs has been removed, and the lancets restored to their original form. A great window was inserted in the east gable of the Lady Chapel at some unknown period, and occupied its entire area. This, which had been replaced by a bad copy in 1791, has been entirely removed, and the gable rebuilt in imitation of the walls of the transepts above described, but with five lancet lights in each row.

In the choir and Lady Chapel, detached Purbeck shafts are applied to all the piers ; some have them fixed in the usual manner by a narrow course of marble, which projects from the piers, and has sockets above and below to receive the ends of the shafts, which it appears to embrace in the manner of a ring. These are the respond piers next the tower, the four larger piers of the crossing at the eastern transepts, the eastern pier, and the respond of the Lady Chapel, also a pier of the south side aisle—eleven in all. The remaining eight —namely, the three intermediate piers of the choir on each side, and one on each side of the Lady Chapel—have their Purbeck shafts encircled by a brass ring, which covers the joint in the middle of the height.

It thus appears that the brass-ringed piers are symmetrically arranged, and stand opposite to each other, yet are mixed with the marble-ringed piers, and both are used not only in the choir, but in the Lady Chapel. Therefore the variety afforded by brass and Purbeck rings was provided for in the original design.

Now the only historical record of the Early English work (except the date of the commencement in 1224, already quoted), is preserved by Leland (Itinerary, viii., p. 104), who says that "Godfrey Giffart, Bishop of Worcester, decorated the columns of the east part of the cathedral church of Worcester with small marble columns having joints of gilt brass."[5]

That the bishop holding the see from 1269 to 1302 might at least have supplied brass rings, is corroborated by the fact that such rings are employed in the portion of the nave of Westminster Abbey that contains the choir stalls, and was erected during this very period, namely, after the completion of its presbytery and transept in 1269, and was

[5] Godefridus Giffart, episcopus Wigorn., exornavit columnas orient: partis ecclesiæ cathedralis Wigorn. columnellis marmoreis cum juncturis æreis deauratis. —Leland, Itinerary, viii. p. 104.

finished in the year 1285, and are to be found in no other part of that fabric. Throughout the earlier portion, marble ring courses are used in the original ordinary manner. In the later portion or western part of the nave ring courses of masonry are again employed, although in the Perpendicular period, but they do not sustain detached shafts; for the small shafts which surround the piers are built solid with the central body, like vertical moldings, and are in reality introduced only to harmonize with the earlier piers.

There is no chronological difficulty in the case of the brass-ringed shafts at Westminster Abbey in 1269, because the style of that building is quite different from the Early English of Salisbury and Worcester, and greatly in advance, the tracery principle being fully developed in it. But the Early English of Worcester, begun in 1224, is far too early in style throughout to have been in building during the life of Bishop Giffart, from 1269 to 1302, and therefore some other explanation must be sought for to explain his connection with the brass rings. This I will attempt to supply. There is another way of fixing these detached shafts, which I observed at Pershore, and which may help to explain the case of Worcester.

Pershore Church was burnt in 1223, and rebuilt so as to be dedicated in 1239.[6] Its piers and pier-arch moldings are so nearly the same as those of Worcester choir and presbytery, as to show them to be the work of the same school of masons. Its piers have detached shafts, which are formed of a kind of black slate 4 inches in diameter, and in lengths of 5 feet or 6 feet. These are fixed to the pier by iron cramps driven into a joint of its masonry. The cramp is furnished with a T-shaped head, and is driven so that the head shall be vertical, thus—⊢. The shafts have holes sunk in their upper and lower surfaces, so that the lower length of the shaft, having been lodged in a shallow socket on the base of the pier, the T cramp was placed with its lower head in the upper hole of the shaft, and its tail then driven into the pier. The next length was then set upon the upper projecting head of the cramp, and its upper end secured by a similar cramp. The joints of the different

[6] In 1239, Bishop Walter de Cantilupe consecrated the conventual churches of Great Malvern, Winchecomb, Alincestre, Teukesbury, Glocester, and Persore. — Register ap. Thomas, p. 131.

shafts of the same pier are not always set at the same level with respect to each other, but are cut so as to coincide with some horizontal joint of the main pier, and thus permit the tail of the cramp to be driven into it. This is a very simple mode of attaching shafts of this kind, and admits of detaching a shaft if shattered, which is not unfrequently the case when long lengths of shafts are attached to piers. For the piers are built of many courses of masonry, the mortar between which occasions the pier to shrink; and as the shafts are in two or three lengths only, they therefore do not shrink nearly so much. Thus the weight of the structure is apt to be thrown upon these slender shafts, and to fracture them, or at least to splinter the edges of their joint surfaces.

Price[7] indeed, from observations at Salisbury, declares that the shafts in that building were not in general introduced in the order and course of the work, but fixed with lead in a socket purposely left, after the building had settled. These shafts, at Salisbury, or some of them, are said to be fastened to their piers with a bandage of brass; but I have myself no memoranda of the exact arrangement of the bandage.

Upon examining the piers of Worcester, I found that the detached shafts of those which have brass rings were in reality attached to the piers by T-headed cramps, as at Pershore, and that the brass rings are subsidiary additions for the mere purpose of covering the joint, which in itself is unsightly when its edges have become splintered. Such ragged edges appear in the shafts at Pershore.

I venture to suggest, therefore, that in the original construction of the work at Worcester the shafts were merely fixed by the cramps, leaving the joints visible as in ordinary masonry; and that the Bishop, long subsequent to the completion of the work, took the opportunity of displaying his liberality by covering the joints with ornamented brass rings, which, as we have seen by the example at Westminster, were in use up to his own time. Leland's memorandum, which gives him credit not only for the rings, but for the small shafts in addition, is merely from hearsay evidence, not quoted from a document, and need not therefore be accredited to the very letter.

[7] Price's Salisbury, p. 63. Dodsworth's Salisbury, p. 131.

At the same time, it may be remarked that it is not impossible that some of the original shafts had been splintered by the settlements of the building, which were very considerable, and that such were replaced by the Bishop when he added the rings.

CHAPTER III.—THE ALTERATIONS IN THE NAVE AND TRANSEPTS.

We may now return to the Nave, and examine the process by which it has become transformed from Norman to its present aspect, which is a mixture of Decorated and Perpendicular architecture.

History furnishes us with the documents that follow. "1281. The sacrist, N. de Norton, received from the executors of Nicholas, Bishop of Ely, 60 marcs towards the rebuilding of the tower" (Ann. Wig., p. 505).[8] This, which we may suppose to belong to the central tower above the roof, shows either it had never been rebuilt since the fall in 1175, or else that it was again threatening ruin. The Norman tower piers are now cased with masonry of the fourteenth century, as will presently appear; so that the project of reconstruction must have been postponed to the rebuilding of the nave, concerning which the earliest remaining memorandum is given in Leland's Itinerary,[9] thus—"Thomas Cobham, Bishop of Worcester, made the vault of the north aisle in the nave of the church." He held the see from 1317 to 1327. He was buried in the north aisle of the nave opposite the window west of Jesus' Chapel,[1] which confirms Leland's information, as it is probable that he was there buried as a benefactor in the midst of his own work. His will, dated 1327 (given in Thomas' History—App. 103), bequeaths twenty pounds to the fabric.

In addition to these notes, we have a series of dates collected from the archives of the cathedral by Dr. William Hopkins, a prebendary from 1675 to 1700. These were first printed by Browne Willis in his Mitred Abbies (vol. ii. p. 262), where he says that they were communicated

[8] Thomas says that the church of Wolverley was specially impropriated to the building of the tower.

[9] Thomas Cobham, episc. Wig.: fecit testudinem borealis insulæ in navi ecclesiæ.—Leland, Itin., 4th App. f. 39.

[1] Green, p. 86, from Abingdon's MS.

to him by Mr. Thos. Baker, of St. John's College, Cambridge. They have been also copied by Thomas from Willis, and by other historians of the cathedral, each from the other. I have found Baker's own extracts in his MSS., now in the Harleian Collection at the British Museum, from which it appears that Dr. Hopkins' note-book was then in the possession of Mr. Laughton, a canon of Worcester, who, according to Willis's list, held his canonry from 1700 to 1714.

One of Dr. Hopkins' note-books, labelled Historical Collections, is in the Museum (Harl. 464), but does not contain the memoranda in question. I give Baker's extracts verbatim below in the Appendix, but will here briefly quote the dates thus preserved that apply to our present purpose :—

1320. Prior Braunston built the gesten hall.
1372. Refectory and cloyster built.
1374. Tower or belfry.
1376. Stone vault over the quire under the belfry, and over St. Thomas's Altar.
This is explained by the fact that the quire at that time was placed under the belfry.
1377. The vault over the nave of the church, the library, treasury, and dormitory.
1378. The water-gate.
1379. The infirmary and stalls in the quire.
1380. The west window.
1386. The north porch of the church.

The mention of the names of the sacrist and cellarer in Dr. Hopkins' extracts shows that these dates are extracted from fabric rolls or other genuine mediæval documents ; but as it is impossible that any one of these works could have been completed in one year, we must either suppose that the date assigned to each is the year of its completion, or that the fabric roll of the years mentioned happens to contain an indication of the works in hand, which Dr. Hopkins has supposed to mean that the whole work was made in that year. The language of fabric rolls is very obscure, and the actual work in hand very rarely indicated ; and it is only in our time that the technical terms employed have been made intelligible. The hypothesis I have suggested does not, therefore, in the least detract from the learning or accuracy of the antiquary who has preserved these valuable memoranda. It is not impos-

sible that the rolls themselves are still in existence amongst the chapter archives.

The actual state of the nave and tower will be best understood by reference to the diagram (fig. 4), which represents an elevation, or rather map, of the north side of the entire nave, of the north tower arch, and of two severies of the choir. These are shaded with different hatchings so as to separate the various architectural styles which I am about to describe. The arches are indicated, and the vaults, but the triforium and clerestory are merely shown by the separating lines. The severies are numbered in order from the west, and I shall call them simply No. 1, No. 2, and so on, in the following description.

In this elevation there are five distinct styles of architecture :—

1st. The Primitive Norman, represented by the crypt in Nos. 11 and 12, and the fragment of superstructure in No. 11; also by the black line between Nos. 2 and 3, which rises from the ground to the triforium, and shows the place of the western shaft of the Norman nave. (Vide p. 93 above.)

2nd. The Pointed Norman, in Nos. 1 and 2.

3rd. The Early English, which includes the whole part east of the tower, but of which only two severies, No. 11 and No. 12, are shown in the diagram.

4th. The Decorated work, to which belongs the entire walls of Nos. 5, 6, 7, 8, and 9, with the lower or solid mural portion of the vault, as shown; and also the pier arches only of Nos. 3 and 4. The entire vault of the side aisle behind this elevation, from No. 1 to No. 9 inclusive, also belongs to this style.

5th. Work which may be called Perpendicular, which includes the triforium and clerestory of Nos. 3 and 4, the entire vault of the nave (except the lower parts of the vaults indicated above), and the tower arches. This style also includes the entire south side of the nave, with its side aisle vault (exclusive of the two Pointed Norman western compartments), and the inserted windows, vaults, and other details of the transepts.

We may conclude, therefore, that the north side of the Norman nave was taken down first, and that when the portions indicated in the Decorated style had been completed, a pause in the work or a change of architects happened,

and the triforium and clerestory of Nos. 3 and No. 4 were then completed in a different style.

Leland has told us that Cobham made the side aisle vault of the north side, and was buried beneath it. This fixes the date of the Decorated work between 1317 and 1327. It is in perfect accordance with the habits of the Middle Ages to suppose that, the rebuilding of the nave being undertaken by the Convent, the Bishop selected a definite portion, such as is the vaulting of the side aisle, as his share of the work, in preference to a mere contribution of money in aid of the whole.

I have shown elsewhere [2] that in the construction of the ribbed vaults of the Middle Ages, the lower portion, which projects but slightly from the walls, is built as a solid block of masonry, in horizontal courses, forming an integral part of the wall, and carried up with it; but that the upper portion, which is detached from the wall and covers the space, is of a different and lighter construction, and was erected subsequently to the completion of the walls. This solid part of the vault may be called the "springing block."

Now, it happens that the springing-blocks on the north side of the nave differ from those on the south side, in that only five ribs rise from the abacus in the former, and seven ribs in the latter.

These five ribs are all that are required in vaults of the simple kind, in which there is one transverse rib, with one wall-rib and one diagonal rib on each side of it, making five in all. This is the case in the vault of the north side-aisle of the nave, and it appears that the same simple arrangement was intended for the central vault above, when the north wall was begun.

But in this central vault, for which the date of 1377 is given in our list, an intermediate rib is introduced between the wall-rib and diagonal on each side, making seven ribs in all upon each abacus; and these seven rise together in the springing blocks of the south wall, showing that they were intended when the south wall was built.

As, however, only five ribs had been provided for at the time of building the north wall, a little ogee arch is introduced on that side above the old springing-blocks, which

[2] Vide Transactions of the Institute of British Architects, vol. i. part i. p. 6.

branches from the sides of the wall-rib and diagonal rib, and serves to carry this intermediate rib (w, fig. 5). For it was easier to insert the additional rib on each side by means of the arch, than to attempt to insert it down to the level of the abacus. The same expedient occurs in the choir of Chester Cathedral, where a Perpendicular vault is carried up from a Decorated springing-block. It may be remarked that in the fan vaulting of Gloucester cloister, the ribs, instead of springing all together from the abacus, are arranged so that five ribs only rise from that level. An intermediate rib between each of them is inserted by a little arch, as in Worcester, at a short distance above the abacus, so as to increase the whole number to nine, which, by the same expedient a little higher up, is increased to seventeen, and in the same way again to thirty-three. This vault is a late work of Abbot Horton, who died in 1377. Thus the contrivance which in the last case is employed as a principle of decoration, to avoid the confusion of so large a number of ribs springing from the abacus, is used at Worcester and Chester as a mere expedient to adapt, for the reception of seven ribs, a vault began many years before with five ribs, but was not introduced into the south clerestory, because that was built after the seven ribs had been determined upon.[3]

The two Pointed Norman compartments at the west end of the nave are covered by a vault, which although at first sight the same as the rest of the central vault, was evidently constructed independently and previously to the latter. Its vault-stones of tufa rest on the back of the ribs, and the back or extrados of the rib is concentric with its soffit, so that the projection of every part of the ribs from the surface of the vault is the same throughout. But in the rest of the central vault, the vault surface is of sandstone, in long pieces, resting on rebates at the sides of the ribs; and the projection of the ribs from the surface is much greater at the lower parts of the vault than at the upper, and differs in the different ribs, the respective curvatures of which are also adjusted in a different manner from those of the former vault.

The transverse rib which separates the western from the

[3] The same treatment of the springing of a vault rib is used in the vault of Edgar's Tower, and also at the base of the moldings of the roof of the Guesten Hall (1320).

eastern of these works, receives the ends of the sandstone vault-stones upon its back, so that at this place, these vault-stones rest at their western ends upon the back of this transverse rib, and at the other end, on the rebate, at the side of their rib. This proves that the vaults of the western compartments were the first erected, for they stand complete; but the ends of the other vaults rest upon them.[4] The workmanship of the latter vault, although perfectly sound, is in the curvatures of the ribs and adjustment of the vault surfaces rough and unskilful.

We may now return to the history of these works. The north porch of the church, which is assigned to the year 1386 in the above memoranda, is appropriated to Bishop Wakefield, in one of Leland's Memoranda in the Itinerary:[5] "Henry Wakefield, Bishop of Worcester, augmented the western part of the cathedral church of Worcester by two vaults or arches. He also built the north porch of the cathedral."

He held the See from 1375 to 1394, and therefore the date 1386 for the porch in Dr. Hopkins' extracts, is consistent with Leland. With respect to the augmentation of the nave, the older historians of the cathedral, observing that the two western severies of the nave were in a different style from the rest, never hesitated to attribute them to Wakefield, and the more because he is buried in the middle of this part of the church, nearly opposite the first pier. Mr. Wild (p. 7) suggests that the addition of two arches to the nave was made by removing the choir screen, which originally stood at the east end of the nave, opposite the second pier from the tower. This would, no doubt, have given two arches more to the public; but there is no proof that

[4] These western vaults have seven ribs throughout on their springing-blocks on north and south; and the springing-block on the north side, which divides the compartment No. 2 from No. 3, and carries the transverse rib which separates these vaults from the rest of the central vault, has on the east side of its transverse rib only two ribs, so as to match the other springing-blocks already described.

The system of building vaults with the surfaces resting on the backs of the ribs, was, with very few exceptions, abandoned at the end of the Early English period; and its retention in these western vaults, in which the ribs have a Decorated profile, may perhaps be accounted for by supposing that this vault is a reconstruction out of old materials. In the north side-aisle of the nave, the Decorated vault rests on rebates at the sides of the ribs, as may be plainly seen on the upper surface under the roof.

[5] Henricus Wakefielde, episc. Wig.: auxit occident. partem ecclesiæ cathedr: Wigorn: 2 arcubus (*duabus fornicibus*, Godwin) erexit etiam porticum ecclesiæ cathedral: Wigorn. versus Boream.—Leland.

this removal took place in Wakefield's time, and I shall show below that it was really effected after the Reformation. Considering that the Perpendicular work about the nave and transepts was carried on during the prelacy of Bishop Wakefield, it is more reasonable to suppose that he selected the north porch, and that part of the central vault which covers the two western severies, as his especial contribution, in the same way that Cobham vaulted the north aisle. This is more probable because, as in Cobham's case, it places his resting-place in the midst of his work. The term "arcus" may be applied to a vault. Godwin, however, uses "fornix" in this place. The order in which the Perpendicular work was built, according to the above-quoted table of dates, whether they mean the beginning or the end of the work, is—tower, 1374; tower vault, 1376; nave vault, 1377; stalls, 1379; west window, 1380; north porch, 1386. The cloister and treasury will be considered in the second part of this essay.

One of the remarkable and instructive characteristics of this church, is the unity of design that prevails in the severies of the central portion, including therefore the choir and presbytery built in the thirteenth century, the north part of the nave in the first quarter, and the south part in the last half of the fourteenth century. (Vide fig. 5.)

In all three the pier arch has a deep series of moldings; the triforium is occupied by two principal arches, each divided by two subordinate arches, whose outward sides are concentric with the principal arches. The four arches thus produced are open to a gallery in the thickness of the wall, for all these triforia are closed outward by a solid wall, with one small opening to the roof in each severy.[6] The tympanum space between the heads of the subordinate arches is occupied by richly-sculptured figures. The clerestories have triple openings; the central one higher than the lateral. In the Early English part these openings are separated by single shafts, in the nave by compound piers. This description of the three styles is also very nearly applicable to the two western compartments of the nave. But in them the triforium is much higher in proportion to the pier arches,

[6] This wall, in the choir and presbytery, is ornamented with arcades visible from below.

and each of its two principal arches is divided into three openings.

The windows of the side aisles and clerestories follow the style of their period. They were triple lancet lights in the Early English, many of which, superseded by Perpendicular insertions, have been restored in the late repairs. In the north aisle of the nave the windows have Decorated geometrical tracery; in the south aisle a kind of flowing tracery, without any decided Perpendicular characteristic.

From the early character of this tracery, and the simplicity of the vault, I infer that the south work of the nave was begun in the middle of this century, and carried slowly on with the casing or rebuilding of the tower piers and arches, and of the arches which open from the east end of the aisles to the transepts. The date 1374 for the tower is probably its completion, and the dates 1376 for the stone vault over the quire under the belfry and over St. Thomas's Altar (which probably stood at the end of the quire), and 1377 for the vault over the nave, mark the covering-in and therefore completion of the crossing space and nave. The transept vault appears later. The windows inserted in the east and west walls of the transepts are of a decidedly Perpendicular character, much later than any work in the nave; and those of the south transept so connected with the vault as to show that they were carried on together, for the ridge ribs of this vault are ingeniously made to spring from the central monial of the clerestory window. The west wall of this south transept has a high Perpendicular window of a singular and clever design, with double monials; the triforium gallery and clerestory gallery of the Norman wall being carried across the front of the window between the monials by bridges, in the manner of transoms.

It thus appears that although the general design of the Early English, Decorated, and Perpendicular severies is the same, and probably derived from the Norman, the windows follow the manner of their respective periods. I will now show that the same principle applies to the foliage and management of the capitals, the forms of the arches, the moldings, and other details.

A person stationed in the centre of the nave, so as to turn conveniently from one side to the other, will observe

the following characteristics. The piers on both sides are unusually bulky, their plan a square, set diagonally, with a triple group of attached shafts at each angle, and two intermediate single ones on each side. The front triple group rises without interruption from the common base to the clerestory string mold, which forms the abacus for its vault shafts. The back triple group is assigned to the vault ribs of the side aisles. The remaining shafts support the rich moldings of the pier arch. These characters are common to north and south.

On the north side a rich band of capitals rests on the pier shafts, and sustains the moldings of the arch, which are disposed in groups to correspond with the shafts below, but are placed so as to overhang them ; and the foliage also runs continuously round the pier, being inflected around the shafts, so as to distinguish the groups without separating them, and with the richest effect.

On the south side the pier shafts are smaller in proportion. The abacus only is continuous round the pier, for each shaft has a separate capital and neck-mold, the foliage not passing continuously from one to the other ; and the moldings are disposed so as to represent distinct ribs, each of the same diameter as the shaft below, so as to appear as if it were that shaft continued through the capital upwards, and ornamented by the addition of a projecting fillet. This character, which distinguishes more or less the Perpendicular style elsewhere, is carried out at Worcester so literally and monotonously as to produce the greatest poverty of effect. The same distinctive differences apply to the respective triforia and clerestories of the north and south sides. The triforia of Nos. 3 and 4 on the north are exactly similar to those of the south ; but the clerestories of these later north compartments, although they have the moldings and principles of arrangement of the south side, have their arches of nearly the same form as the earlier clerestories of the Decorated compartments, of which they are a continuation, and are plainly intended to match them.[7]

On the south side the two lateral clerestory arches are perfectly straight-sided, forming a triangular arch whose base is the impost line, and the central arch is nearly so,

[7] Vide Fig. 5.

being straight-sided from the apex downward, until it nearly reaches the vertical piers, which it joins by a small curve. Such straight arches are to be found in various parts of England, as in the north transept of Hereford Cathedral, in its pier arches, triforium arches, windows—also in the triforium of the north transept of Rochester, &c.; but these belong to the latter half of the thirteenth century, whereas the clerestory of the south side of Worcester is nearly a century later.

No four-centered arches are employed in the north or Decorated work, but segmental arches are used for the scoinson arches of the aisle windows, and for the diagonal vault ribs.

In the south or Perpendicular work, four-centered arches, with very straight upper curves, are used in the ribs of the central vault, and also in the vault of the side aisle, but are not so decidedly four-centered in the latter.

The pure Decorated compartments on the north side have never been well engraved. Mr. Wild selected a compartment on the north side of the nave close to the Norman work at the west. This is therefore a mixed design, having, as I have explained above, the Decorated pier arch surmounted by the Perpendicular triforium and clerestory, in which the arches are formed in imitation of the previously-built Decorated work at the west. The mixed character of this part of the cathedral has hitherto escaped notice. Mr. Britton selected a compartment on the south side for engraving. Thus the pure Decorated work, which is original, homogeneous, and dated, has been passed over, although greatly superior to the portions selected for publication. It is, however, shown in the perspective view of the nave given by Britton, but its character is not happily given by the artist.

CHAPTER IV.—FROM THE REFORMATION TO THE PRESENT TIME.

THE history of the cathedral since the Reformation may be briefly stated, principally with the help of the sources of information given by Green, whose authority for matters subsequent to the establishment of the Dean and Chapter is excellent.

But as much of this history relates to changes in the

arrangements for the performance of the services, we must first endeavour to ascertain what these arrangements were before the Reformation.

The eastern limit of the Early English presbytery was probably the same as now. At present the high platform of the altar is bounded eastward by a screen, which connects the two eastern piers of the small transept. The structure of Prince Arthur's sepulchral chapel, on the south side, shows that the platform was in that position in 1504, when the chapel was built; for it is ingeniously adapted to that level, and has a door of entrance from it, besides having sedilia provided on its northern face, indicating the presence of the altar.

The shrines of S. Oswald and S. Wlstan were taken down in 1538, and their relics buried at the north end of the high altar. Their original position can only be surmised as follows:—

In 1216 King John was buried before the great altar, between SS. Oswald and Wlstan. This was in the Norman presbytery. It thus appears that these two saints were deposited in front of the high altar, in the same manner as S. Dunstan and S. Elphege in the cathedral of Canterbury, where, in the Norman choir of Conrad, the high altar stood in the centre of the apse, having the bishop's throne to the east, against the apse wall; and immediately to the west of the altar two other altars were placed on the platform, one against the north pier, the other against the south, dedicated to and having the relics of S. Elphege and S. Dunstan respectively deposited in feretra, and this arrangement was preserved up to the time of the Reformation, as I have shown.[8]

Now, it is recorded that Bishop Godfrey Giffard, who died in 1302, constructed at Worcester a magnificent tomb for himself near the high altar, above, or rather beyond, the shrine of S. Oswald, removing for that purpose the body of Bishop John de Constantiis, who died in 1198. But Archbishop Robert issued a mandate in 1302, to remove the tomb to a lower position and place it on the south side of the high altar; also to replace the bones of Bishop John. All this was done.[9]

[8] Vide my Arch. History of Canterbury, pp. 39, 43, 102.

[9] Wharton, note to p. 497.

This anecdote shows that in 1300 the shrine of S. Oswald was placed, as of old, in advance of the high altar and on the north side, and it seems to show that the high altar was then on the same platform as at present, if we allow that the Bishop, whose tomb is covered by Prince Arthur's Chantry, may have been Godfrey Giffard, as Wild suggests, and which is very probable.[1] For this tomb stands on the level of the eastern transept floor, five or six feet below the platform of the altar, and directly to the south of it, and the chantry is carefully built, so that the vault which sustains its floor shall canopy the older monument without disturbing it. This explains the "*inferiorem locum*," or lower level, to which the Archbishop transferred Giffard's tomb. The pedestals and shrines of Oswald and Wlstan, each with an altar attached to its west end, appear to have been placed, the one to the west of the north-west transept pier, the other to the west of the south-west transept pier. The altar platform probably extended westward to receive them. This platform lies, as the plan shows, outside of the external wall of the crypt. Its site was probably occupied in the Norman times by a Norman Lady Chapel, whose walls may still assist in filling the space beneath.[2]

As for the choir seats, we learn from Dr. Hopkins' Notes that "The Quire antiently extended westwards to y^{e} 2^{d} Pillar below the Bellfrey," and that "The Stone Vault over the Quire under y^{e} Belfry and over St. Thomas's Altar, was made in 1376." The latter memorandum, at least, is manifestly extracted from a mediæval register, and shows

[1] Mr. Bloxam concurs in the opinion that this tomb may be ascribed to Giffard, in his paper on the Sepulchral Remains and Monuments in Worcester Cathedral, reported in the Gent. Mag., Oct., 1862, p. 425. Giffard died Jan. 26, 1301—2.

[2] The present inclosure is formed by a wall on the north and east sides, which had externally panelling, of which a portion still remains on the north. Mr. Green (p. 60, and Appendix, No. viii. p. xxvi.) records that traces or remains of panelling exactly similar were found on the inside of the east wall. He conjectures that the east wall of the old crypt was originally allowed to remain as the eastern boundary of the choir, and that it showed its circular form between the two great western piers of the small transept. The extension of the platform to the eastern piers would therefore have been subsequent. But this is pure conjecture, and is contradicted by the construction of Prince Arthur's Chapel.

A fragment of the original inner face of the enclosing wall on the north side of the altar still remained at my last visit. It had served as a pedestal for the monument of Bishop Gauden. The rough representation of Bishop Bullingham's tomb (in Thomas, p. 41), shows another fragment of the same, now destroyed. The enclosure consisted of massive panelling, alternating with a kind of columnar pedestal, the head of which projected like a bracket or corbel to carry a statue. The upper surface, now fully three feet broad, might have sustained monumental effigies.

that the choir seats, to which the word "Quire" is limited, still occupied their position under the central tower in 1376, as the vault over the present quire cannot be that here mentioned.

The numerous examples of Norman churches[3] that retained their arrangements when the early plans in Willis and others were made, and still retain them in many cases, show that originally the choir seats were commonly placed under the tower, and that when too numerous to be contained in that space, were extended along one or two arches of the nave.

The arrangement of Winchester is the most applicable to our present purpose, because Winchester, like Worcester, has a crypt under the presbytery or eastern arm of the cross, which raises its pavement eight or nine steps above that of the transepts and nave. But as this crypt does not extend under the tower or nave where the choir stalls are placed, the pavement of the choir is raised by means of a platform of earth to its suitable level, three steps below that of the presbytery, which stands over the crypt.

At Winchester, also, this platform extends into the nave considerably in front of the choir screen, and is ascended from the nave not only by a flight of steps in front, but by lateral steps. It is probable that originally this platform was covered with a vaulted canopy, and that altars were placed beneath it on each side of the choir door.

Such a platform for the choir must have been employed at Worcester, and its existence is attested by the fact that the plinths of the nave piers next to the western piers of the tower are much higher than those of the remaining piers of the nave, indicating a higher level of the pavement at this place.

On the north side of the nave I find the bases of the first three piers, reckoning from the tower pier, are 2 ft. 8 in. in height, and the remainder westward only 2 ft. On the south side the first pier only has a high base, 3 ft. 7 in., and the remainder are 2 ft. 6 in. high. This may also be seen in Wild's section of the cathedral, and a similar rise in the plinths against the choir steps is shown in Britton's plate XI (Winchester Cathedral), which represents the north side aisle and the Norman shaft projecting from Wykham's pier.

[3] Thus at Winchester, Peterboro', Hereford, Ely, Chichester, Norwich, Gloucester, St. Cross.

The extension of the choir to the second pier below the belfry, probably includes the choir screen and usual chapels in front, with the steps; but the sudden rise in the height of the plinths being in the work of the fourteenth century, shows that there was no intention of disturbing the platform and seats of the choir when this work was carried out.

It is recorded, as we have seen, that the present vault *over the quire—i. e.*, that of the tower—was made in 1376; and also *stalls in the quire* were made soon after, in 1379. These new stalls were therefore placed in the old position beneath the tower. We hear no more of them until we arrive at an extract from Bishop Blandford's Manuscripts, which tells us that "the ancient stalls remained till 1551" (5 Edw. VI.), "when, with all the choir and the bishop's seat, they were taken down. Five years afterwards, in 1556" (Queen Mary's time), "the choir was removed from the clock-house (or clocherium), to which it had been transferred, the present stalls were set up in the order in which they stand at this time, a goodly loft to read the gospel, and the whole order of the choir restored. At the same time the upper part of it, from the end of the stalls to the foot of the altar, was inclosed with stone grated with iron, and two doors on each side."[4]

The stalls themselves as they now exist—that is to say, the misereres and elbows—are evidently the ancient ones made in 1379. The Renaissance canopies above them, and the other fittings, belong to a later period, and are valuable specimens of woodwork. The taking-down of the old choir in 1551 appears to have been done only for the purpose of shifting the position of the choir from the tower into the presbytery. The platform of the old choir under the tower was then completely removed, and the pavement laid at the same level as the transepts and nave. A long flight of steps was extended from the north to the south gables of the transepts immediately in front of their eastern walls and of the eastern tower piers. This arrangement is shown in the plan given in Willis's Cathedrals, and remained until 1748, when the pavement of nearly the whole church (including the nave, western transept, and choir), with its aisles, was relaid with white stone, the levels and steps of the

[4] Bishop Blandford's MS., ap. Green.; Bishop Blandford held the see from 1671 to 1675.

transepts and choir altered, and all the sepulchral stones taken away.

The floor of the transept was raised, obliterating the bases of some of the piers, and diminishing others, and two steps were placed at the arches leading from the nave to the transept. Separate flights were placed in the centre of the transept under the tower, and opposite the lateral arches of the side aisles, by which to ascend to the choir pavement, which was now raised eight inches above the old one that still remains beneath. The lower part of the bases of the choir piers was thus concealed.

"There was formerly," as Thomas informs us (p. 9), "a fair stone cross in the churchyard,[5] which was the usual preaching place, as at St. Paul's, London. There were also seats for the chief of the city on the north side of the church, but south from the cross, much resembling those of St. Paul's." This cross was demolished in the time of the civil wars, when the cathedral was occupied by the degraded and brutal troops of the Puritans, and exposed to the profane and filthy desecrations and ravages which characterised their treatment of the churches. After the Restoration the delivery of the city sermons was transferred to the nave. The stone pulpit was fixed on the north side of the nave, against the second pillar from the west; and a seat for the bishop, attached to the pier, immediately opposite on the south.[6] This pulpit was removed to its present position on the north side of the choir in the course of the great repairs in 1748;[7] and at the same time the ancient font was removed, and a new one erected in the centre of Jesus' Chapel, which had been newly laid open to the nave.[8] The old font stood against the west side of the seventh south pier, reckoning from the west, and opposite to the altar of St. John Baptist, which stood at the foot of the corresponding pier on the north side of the nave.

[5] In 1458 (37 H. VI.), Bp. Carpenter and others grant to the Prior and Convent of Worcester certain premises for the use of the sacrist, who is to provide a chaplain to officiate in the charnel-house, and amongst other duties enumerated, "shall read a public moral lecture on the Old or New Testament once or twice in a week, according to the discretion of the Bishop, and shall preach, either in the cathedral, or *at the cross in the churchyard*, every year on Easter Eve, &c. &c." Prattington's MSS. v. viii., p. 398, in the Lib. of the Soc. of Antiquaries.

[6] Vide plan in Willis's Cathedrals, vol. i. p. 623.

[7] Green, 140, quotes an entry in 1623, Nov. 14, 21, J. 1, from the Corporation books concerning the "paying for and towards making of the newe seats in the Cathedral church," which he thinks alludes to the seats between the east end of the stalls and the altar.

[8] The first register of its use is dated July 12th, 1770.

The sacrist's lodging was at the north aisle of the choir, and had an oriel window looking into that aisle, which still remains. It appears to have been constructed above a building, corresponding to the south vestries, and apparently extending also over the vaults of the side aisle, the outer wall and roof of which is raised high enough to admit of chambers beneath it. At Durham, for example, the sacrist (called "Maister Sagersten," or "Sexten") had his "*checker* within the church in the north alley, over against Bishop Skirley's Alter of the lefte hand as you goe up the Abbey to Saint Cuthbert's Fereture,"[9] being a similar position to his chambers at Worcester. His office was to provide all necessaries for the church service, as bread and wine, wax and light, to see to the repairs of the fabric, bells and bell-strings, to lock up the Altar keys, &c. But he slept in the dormitory, and had his meat served "from the great kitching to his checkre," *i. e.*, his *scaccarium*, or *counting-house*, as business offices are more usually called. This sacrist's lodging was not the same thing as the *sacristy*, which is in the "Durham Rites" called the *revestrie* (p. 80), where the priests vested themselves.

We may now briefly consider the history of the repairs of the fabric which have been from time to time carried out since the Restoration. Little appears to have been done at first, except cleansing the church, and repairing or concealing the mutilations and wanton mischief of the Puritans. An altar screen of oak, with Corinthian pilasters, was set up to cover the outraged condition of the ancient altar.

In 1712, substantial repairs were undertaken to assure the stability of the structure, and also to obliterate the ravages of the Rebellion. These occupied three years, and cost a sum of 7000*l.*, part of which was supplied by the Government.[1] The outward walls were cased, the four pinnacles at the corners of the tower were rebuilt. The stone wall connecting the two northern high piers of the eastern transept, opposite to, and corresponding in position with, Prince Arthur's Chantry, was built, in order to support these piers, which were dangerously inclining inwards and towards each other, under the pressure of the pier arches. This wall was ornamented with gigantic quatrefoils.[2] Arches,

[9] Rites of Durham, 81.

[1] Vide Green, p. 139.

[2] This is shown in Wild, plate 12, and is now demolished.

decorated with Italian moldings, were constructed across the south-east transept to sustain its falling walls; and, as I suppose, at the same time the first pier from the tower on the north side of the choir was cased into the extraordinary form which it exhibits at present, having new capitals, imitating the general forms of the old foliage, and its base fortified by gigantic consoles of the Italian form. We may presume, that it must have been in a state of threatening ruin, like its opposite pier on the south side, which is considerably, but not dangerously, inclined to the east.[3]

The tall spires, which are shown in Browne Willis's view in 1727, on the angles of the presbytery, transepts, and nave, also in Wild's view and in Britton's view, but not shown in Dugdale's engraving, 1672, must have been built about this time, but no record of their building has been found. The sacrist's lodging, shown in the above engraving of Dugdale, which was built against the west end of the north aisle of the choir, was now taken down. It was assigned to the prebendary of the first stall, in the distribution of the houses at the foundation of the chapter by Henry VIII. But that prebendary was now transferred to the substantial house that still stands at the east end of the college green, and which was at this time built for his reception; and the site of the old one enclosed within the wall on the north side of the cathedral, between the ends of the two transepts, and a garden formed upon it.[4]

Another repair, the most considerable since that of 1712 just described, was undertaken in 1748, and carried on for eight years under Deans Martin and Waugh;[5] in the course of which the north end of the great north transept was rebuilt, with its window and spires, by Mr. Wilkinson, who had just then built the spire of St. Andrew's Church;[6]

[3] The entrance to the crypt is shown in the same place nearly in the older plans, but the pavement of the transept was then lower, and the passage was made narrow and thrown near to the tower pier, so that the Norman arch was not inconveniently obstructed. The door to the crypt also was at the bottom of the steps, and no covered passage was over them. This applies to the entrance as arranged in Queen Mary's time. The original entrance was under the arch which leads to the side aisle of the choir, as at Gloucester and elsewhere.

[4] Green, v. 1, p. 130.

[5] Green, 140. At this time the passage round the west end of the cathedral was laid open, before which passengers used to convey every kind of burthen through the north porch across the nave to the cloister door.

[6] Hollar, in 1672, and Dougharty's view, in Thomas, show the form of this north end before the alteration. It had below the great window a smaller one, probably inserted in the arch of a northern doorway.

and the alterations in the pavements and in the positions of the pulpit and font, above described, were carried out.

The great flying buttresses at the east end were erected between 1736 and 1789, these being the respective dates of the two engravings given by Thomas and Green, of which only the second shows these buttresses.

Under succeeding deans, the window at the west end was rebuilt, in 1789, and that at the east end in 1792. The great tower about this time was scaled several inches deep, by which its architectural character was greatly injured.[7] A new altar-screen and choir-screen was set up in 1812; the tall pinnacles were taken down some time after 1832; and finally, in 1857, the extensive restorations undertaken which are now in progress, under the direction of Mr. Perkins, the cathedral architect.

In criticising these repairs and restorations, it is necessary to recollect that the crumbling material of the cathedral had decayed to such an extent on the exterior as to destroy the whole of the decorative features; and that in the interior, settlements of the piers and arches in the Early English work had attained so alarming a magnitude as to threaten the stability of the structure. Attempts had been made to mitigate these settlements by the introduction of the walls and arches mentioned above, in 1712. But these, beside disfiguring and obstructing the interior, were themselves giving way, having served rather to change the direction of the settlements than to stop them.

The outside of the cathedral had been also overloaded and disfigured by additional buttresses to prop up its falling walls. Most of these have been removed or repaired, and the walls themselves thoroughly and skilfully restored to soundness by renewing the whole of the exterior ashlar, and pointing the interior, resetting it where required. This process has necessarily destroyed all appearance of antiquity in the exterior of the choir and Lady Chapel, but it must be remembered that all the decorative features of the original had vanished long since, and given place to the mean and uninteresting botchings of the sixteenth and seventeenth centuries, and that we have now a reproduction of its original aspect, as far as that can be determined.

[7] Vide Wild, p. 14.

In the interior, the bolstering arches and walls of the small transept have been removed, and the failing piers themselves thoroughly repaired. The north-western pier, and the pier arches connected with it, have been entirely taken down and rebuilt. The carved work of the capitals, and bosses and devices in the spandril, have been carefully cleaned under the able superintendence of Mr. Bolton, and only in a very few cases, where the whole had been destroyed, has this carving been renewed. The spandrils of the arcades have been treated in the same manner.[8]

In restorations, there will always be differences of opinion concerning the extent to which the removal of mediæval additions and changes should be carried. My own opinion is always in favour of allowing such changes to remain, as historical monuments, unless there be very imperative reasons for disturbing them.

But in the case we are now considering, the restoration of the parts east of the tower has been carried out upon the opposite principle of replacing all the Early English features, so as to restore the unity of style in the work, which had been disturbed in the fifteenth century by the introduction of Perpendicular tracery into the Early English windows, and especially by the substitution of a magnificent eastern window, which, like that of Gloucester, occupied the entire space of the east wall, and consequently entirely destroyed all traces of the original design of the east front. This new eastern window, the history of which is not recorded, had itself decayed so far, that in 1792 a new one was set up, which Mr. Wild says nearly resembled the one which preceded it, but which was evidently deficient in many essential particulars.

[8] In the south-eastern transept the subjects of the west and south walls remained perfect, and have been merely cleaned. The spandrils carvings of the east wall had been completely hacked away. Newly-designed spandrils, the subjects of which have been made to follow the general outlines, indicated by the fractured surface, have been inserted.

Along the south wall of the Lady Chapel the old spandrils are perfect, and are left untouched by the modern repairs. So also, with respect to the east wall of the south aisle, and the south wall of the projecting central extremity of the Lady Chapel, except only that a Rood in the centre of the former, and the central subject of the latter, have been renewed.

From the east wall of the Lady Chapel, arcades and sculpture had all vanished, and are at present all new. Continuing the course of the walls, the short north wall has the original carving, the east wall of the north side aisle has new arcades and carving, the old having been all destroyed. Those of the north wall of the aisle are old and untouched, of the east and north walls of the small transept altogether new, and lastly, those of the west wall old and untouched.

The management of the east end was thus reduced to a choice between a modern conjectural restoration of the great traceried window, and a modern conjectural restoration of the original Early English eastern termination. As the tracery in the smaller windows was also so decayed that it was easier to remove it and restore the Early English lights, for which there was good authority, it is not surprising that it was determined to rebuild the eastern gable in the Early English style.

The design, made by Mr. Perkins, was founded upon the very probable supposition that the original window resembled in composition the group of windows which now remain in the eastern walls of the small transept, substituting only five lights in each tier instead of three, on account of the greater breadth of the wall. This conjecture was corroborated by the existence of walled-up ends of passages from the triforium on both sides, which still remained at the east end of the Lady Chapel, and showed that a gallery was anciently carried across the east gable, dividing it, as in the small transept. I may add, that the interior effect of the window, now finished and glazed with painted glass, is so good, and so entirely in harmony with the original architecture, that the principle of its restoration is abundantly justified.

In conclusion, I may observe that whatever differences of opinion there may be with respect to the course adopted in some parts of these restorations, there can be no doubt as to the constructive skill and conscientious care displayed by the architect in carrying them out, and in boldly undertaking to restore the shattered structure to a state of soundness and stability, by underpinning and rebuilding the failing piers and arches as they required it, and re-setting the ashlaring, so as to allow of removing the miserable incumbrances with which the timidity of the last two centuries had overloaded and endangered this noble monument of antiquity.

EXPLANATION OF THE ENGRAVINGS.

Fig. 1, Historical plan of the cathedral:—A, the present position of the altar. The altar before the Reformation probably stood very nearly in the same place.

B, Prince Arthur's Chantry.

a, *b*, the sites of two earlier monuments on the pavement of the south transept, which is five feet below the level of the altar platform. The chantry was built so as to cover these monuments with an ornamental vault; *b*, is that of Bishop Gifford, explained in the text, p. 118.

C, the site of King John's monument, "made by Alchurch the sacrist," in the sixteenth century.

D, the dotted line shows the extent of the Norman apse. E, the position of the Norman altar in the centre of it.

The Norman presbytery extended from D to F, and the Norman choir from F to G.

H, the position of Bishop Wakefield's tomb immediately below the two compartments of vaulting which he made.

I, the central Norman door of the west end, of which traces remain.

K K, the Norman lateral doors; the materials of their jambs, &c., were found, in the late repairs, to have been employed in building up the apertures.

L L, two ornamental buttresses, erected in the late repairs to sustain the west front.

M, the burial-place of Bishop Cobham, under the vault of the side aisle, which he made.

N, Jesus chapel, now used to contain the font, removed into it in 1748.

O, Norman archway, opening from the transept to the chapel, R, now called the vestries, of which arch the eastern part has been always exposed to view; the western was opened during the visit of the Archaeological Institute in 1862.

P, a similar Norman archway in the wall of the north transept, walled up because the chapel, Q, to which it gave access, is entirely razed to the ground; the foundations of its crypt wall and apse still remain below ground.

R, chapel known as the vestries. From the south-west corner of this, a door and staircase lead up to the treasury, erected in 1377, which is partly sustained by its own walls at S, and partly by the Norman vaulted passage at T.

V V, steps leading down from the choir aisles to the lower level of the eastern transepts and Lady Chapel.

W W, settlement indicating the junction of the two parts of the building, as explained at p. 101.

c, *d*, *e*, *f*, *g*, *h*, *i*, *k*, *l*, *m*, *n*, *o*, are fragments of Norman work in the walls of the later buildings, which show the extent and plan of the Norman building, as explained in the text, p. 91.

p, *q*, *r*, *s*, *t*, *v*, in the transepts, are the respond shafts of the Pointed Norman, engrafted into the Early Norman walls. Of these, *s*, *t*, *v*, are exactly the same as those of the western arches of the nave, as at *m*, for example; *p*, *q*, *r*, are rather later.

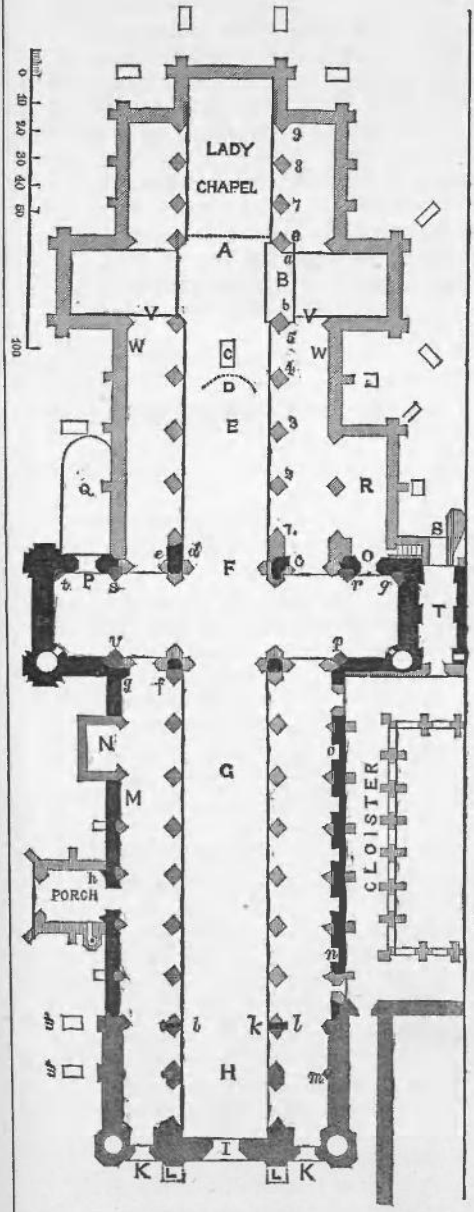

Fig. 1. Historical Plan of Worcester Cathedral.

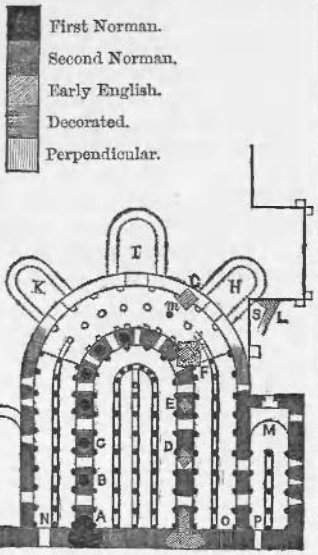

FIG. II PLAN OF THE CRYPT

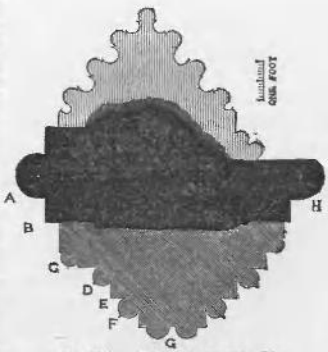

FIG. III PLAN OF PIER K.L

The blank rectangles on the outside of the cathedral, as at *w w*, indicate the position of the piers of flying buttresses, erected to prop up the failing walls.

The piers of the choir and Lady Chapel are numbered in order in this plan from 1 to 9. The plans of these piers are of two kinds: the one, similar to the choir piers of Salisbury, has a central column, the plan of which is in the form of a quatrefoil, and is encompassed with eight detached shafts. The other has an octagonal central column, worked with various moldings, and, like the other, encompassed with eight detached shafts. I will designate the former plan by S, and the latter by O, in the following table, in which the piers that have brass rings are marked with B, and those which have marble rings with M.

Plan of Pier.....	S	S	S	O	O		O	S	O	O
Pier number in Fig. 1..	1	2	3	4	5		6	7	8	9
Material of Ring	M	B	B	B	M		M	B	M	M

The piers marked S, in the choir, have the plan of the body exactly in the form of a quatrefoil of four lobes, meeting in a nook, as at Salisbury. But in the pier marked S, in the Lady Chapel, the lobes of the quatrefoil join by a continuous line. As the junctions of the lobes are concealed by the surrounding shafts, one of which stands opposite to each, the general appearance of the two piers is the same.

Fig. 2, Plan of the crypt:—In this plan I have, on the northern half, shown the position of the Norman piers, as A, B, C, which must have stood upon the solid parts of the wall. On the southern half of the plan, I have shown the present piers, of which D stands partly over the archway, and this has occasioned it to be walled up. E is on the solid wall. F stands partly on the curved wall of the crypt, but principally on a block of masonry, shown in the plan, which block can be seen under the arch of the apse, and at the end of the south aisle at F. The curved aisle of the crypt, beyond F, is blocked up. G, the south-west pier of the small transept, stands partly upon the crypt wall. *m* is the pillar, which I examined through a breach in the pavement, and thus ascertained that the vaults of the curved aisle remain, in part at least, below the pavement. H, I, K, are the conjectural positions of chapels, in accordance with other examples. At L, some foundations were discovered, lying at an angle with the walls of the choir, as shown, and having the base of a small pillar *in situ*, at S. Beneath the angle of the transept, opposite S, the jamb of a Norman window was found, with an angel painted upon it. This painting was faithfully copied, but unfortunately no plan was made of its exact position with respect to the crypt, nor were the excavations sufficiently extended to enable the nature of these remains to be made out. The intermediate pillars of the crypt rest upon a continuous foundation-wall, which is shown in the plan, and which follows the curvature of the apse. The central row of pillars rests upon a similar wall, which is continued eastward until it meets the last-mentioned wall.

N, O, the ancient entrances to the crypt.

P, the present entrance, which was probably made when the choir was removed from its original position. The original access to the crypt was like that of Gloucester, where a double flight of steps placed under the arch which opens from the transept to the side aisle of the choir, leads on the one hand upwards to that aisle, and on the other downward to the crypt.

Fig. 3, Plan of the pier, *k*, *l*, on the south side of the nave, to show its compound structure (vide p. 94, and Note 5, p. 95).

Fig. 4 is an elevation in outline of the interior north side of the nave, and part of the choir, tinted to show the distribution of the styles of architecture, as explained in the text, p. 110.

The crypt is shown, with the arches in the wall that sustains the piers. A is the portion of Norman wall which retains the springing of the pier arch and triforium; B, C, are outlines of the Norman piers which stood on the solid parts, E, F, of the wall below. D is an Early English pier, placed over the void part of the wall below, the aperture of which is accordingly walled up with rubble.

G is the old Norman shaft (*i*, Fig. 1), corresponding to its opposite, A, B, in Fig. 3.

H, the place of the transverse rib, which separates the western vault from the later eastern, as explained at p. 112.

Fig. 5, Outline in block of the north and south severies (except the Pointed Norman work at the west end).

A, pier arch, common to all the north severies.

B, pier arch, common to all the south severies.

C, D, the Norman arch in the side wall.

E E, half of the Decorated triforium in the severies from 5 to 9.

F F, half of the Perpendicular triforium in the severies from 3 to 4.

G G, the Perpendicular triforium of the south side.

The capitals of E E embrace the whole of the molded piers, just stopping short of the centre of the middle pier. In F F, and G G, they are confined to a small shaft in the middle.

In E E, and F F, the hoodmold rests on carved bosses, at each end; but in G G, the centre only, where the two hoodmolds meet, has a boss, and the extremities of the hoodmolds abut against the vault-shafts. This difference is also found in the hoodmolds of the pier arches, A and B.

H, I, half of the Decorated clerestory in 5 to 9.

J, K, half of the Perpendicular clerestory in 3 and 4. Here again the capital of the little Decorated pier embraces it; but the little Perpendicular pier is treated in the same manner as the small piers in the triforium below, and have a small shaft and capital in the centre, omitted in the drawing on account of its small scale. The arches, I, are Pointed. The arches, J, are four-centered.

L, M, the Perpendicular clerestory on the south. This differs from those on the north in the form of the arches, L and M, which are very nearly triangular, as the drawing shows. The little piers are treated as in J, K, but the triangular arches have no hoodmolds.

In the tympanums, *e*, *f*, are the remains of sculptured figures. In *g*, only a corbel remains in each. Figures have been placed upon these, carved by Mr. Bolton, in the late restoration.

The construction of the vault of the north severies is shown at N . . . . . W.

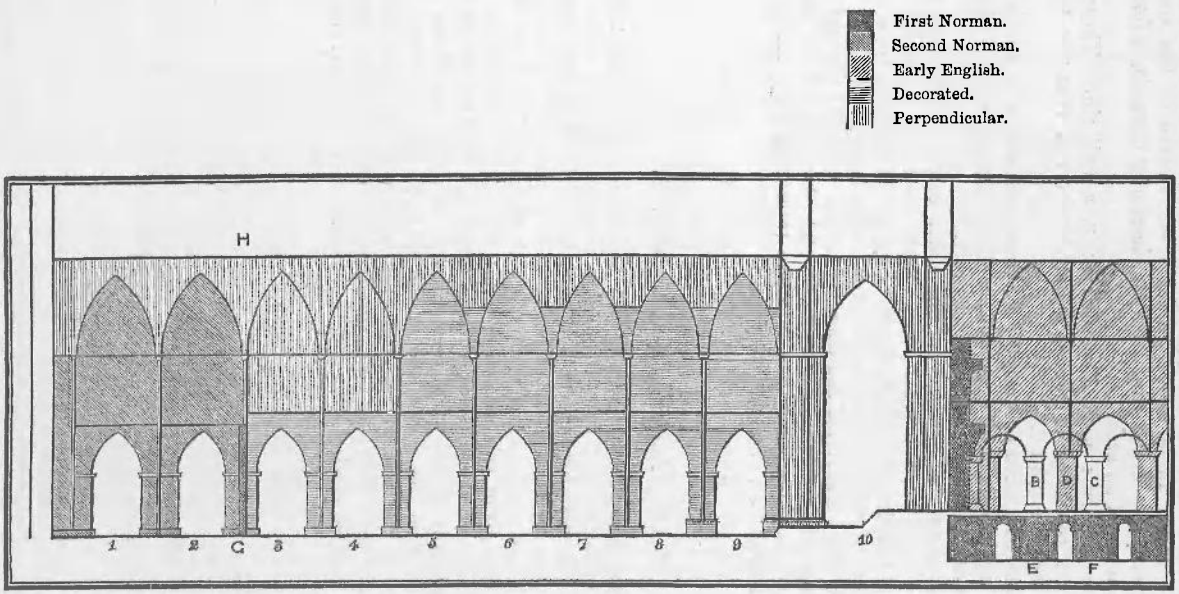

Fig. 4. Elevation of north side of Nave, with part of Choir and Crypt.

N, O, P, is the springing block of masonry which is built solid with the walls, and is constructed with horizontal joints from N to O. But the upper stone, O, P, has its upper surface cut into beds that are inclined at the proper angle to receive the lower surface of the voussoirs, of which each of the ribs, from the level of P upwards, is formed in the manner of an arch.

Q is a transverse rib: R, a diagonal rib: T, a wall rib. These three only are contained in the springing block, and thus rise together from the abacus, at N.

S is an intermediate rib between the diagonal and wall rib, which terminates downwards in an ogee arch, W, whose legs branch from the sides of the diagonal and wall rib respectively.

In this vault the dotted line, R, V, of the outer curve, or *extrados* of the ribs, where the vault surface rests upon them, is not parallel to the soffit of the ribs, and the variation differs in the different ribs.

The bases are of different heights, as explained at page 120.

The apices of the transverse and diagonal ribs, Q, R, are at the same level, the longitudinal ridge rib being horizontal; but the apex of the wall rib is considerably lower, and thus the transverse ridge rib descends from the centre to the clerestory wall.

Additional Note to page 112.

The recent scraping has shown that the north side of the nave was built in two successive portions, beginning from the east end, which abuts upon the north-west tower pier; the bases of the three eastern piers are higher and coarser than those of the remaining piers to the west. The two eastern compartments of vaulting, with the vault of Jesus Chapel, differ from the rest of this side aisle vault, the vault of the former being of red tufa, and of the latter of red sandstone; and the ribs of the former are in alternate green and white voussoirs, but the latter are wholly green. As Bishop Cobham lies under one of the latter vaults, we may attribute that portion of the work to him. As the transverse rib which separates these two different vaults is built of alternate voussoirs, and therefore makes the eastern portion complete, it is clear that the latter was first built.

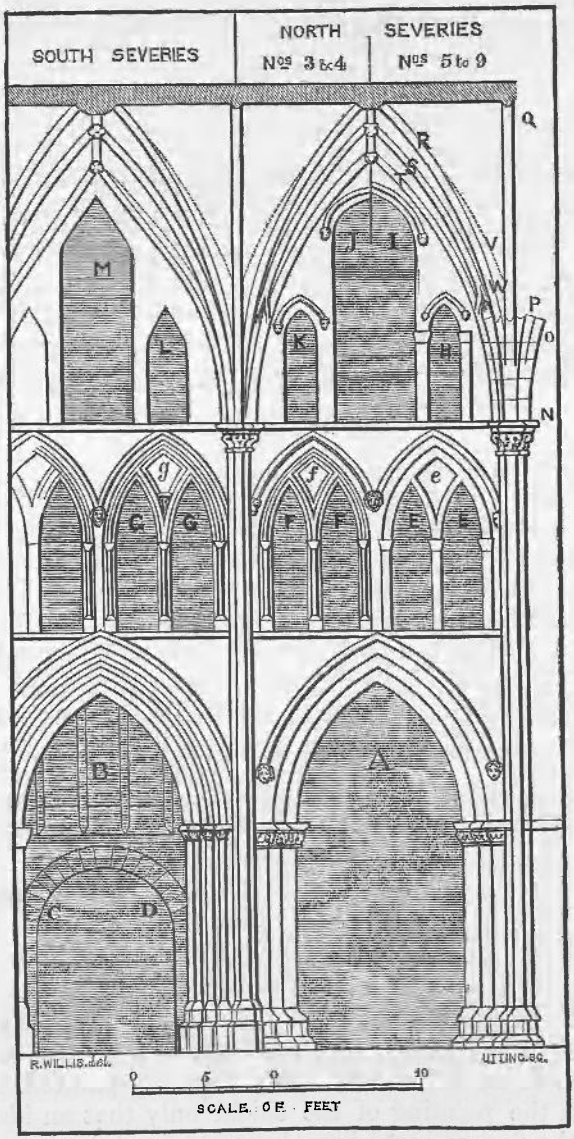

Fig. 5. Comparative Elevations of Nave.

THE ARCHITECTURAL HISTORY OF THE CATHEDRAL AND MONASTERY AT WORCESTER.[1]

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PART II.—THE MONASTIC BUILDINGS.

The only documentary assistance for determining the plan and arrangement of the monastic offices is to be found in one of Dr. Hopkins' extracts from the cathedral documents (vide Appendix), which is evidently a concise abstract of part of the contents of the original assignment and distribution of the buildings to the several members of the newly-constituted body—the dean, prebendaries, minor canons, and other ministers of the new foundation—to provide them with convenient houses and dwelling-places in respective parts of the buildings and grounds of the suppressed establishment.[2] This document possibly still exists amongst the cathedral archives at Worcester, but I will here insert Dr. Hopkins' memorandum verbatim.

> "The Dean hath the Priors House,
> First Prebendary, y^{e} Sacrists,
> 2^{d} : the Tumbary,
> 3 : the Subpriors,
> 4th Hospitalarius,
> 5th Infirmarius,
> 6th Pittensarius & p^{t} of y^{e} Cellerer,
> 7th : Coquinarius,
> 8th—9th : M^{r} Capellæ,
> 10th Eleemosynary & part of the Priors."

As the sites of these houses are all known, as well as

[1] Continued from page 132, *ante*.

[2] In Bentham's Ely, Supplement, p. 58, one of these assignments made by the commissioners of King Henry VIII. at the time of the suppression of the monastery at Ely, is given at length.

their respective appropriations to the numbered stalls, we obtain from this memorandum a first approximation to the distribution of the monastic offices. The site primarily assigned to one of these stalls was, as we have seen above (p. 42), shifted to a more convenient position, and the other residences that were not removed were, in course of time, for the most part rebuilt, so that the whole finally appeared, about twenty years ago, in the form of a group of ordinary houses with gardens, many of them, however, retaining in their walls and cellars fragments of their mediæval originals.

The greater monastic buildings were probably very little disturbed until the Rebellion, when, as the subjoined document[3] shows, the roof timbers and lead were stripped from *the great spire, the east transept with the lead pinnacle, the vestries or south chapels of the choir, the chapter house, dormitory and cloister*, as well as from other buildings, as the dean's hall, the house of the third stall, the gate-house, &c. The conduit was also destroyed.

During the last twenty years, however, changes have been made in the prebendal houses which, however conducive to the comfort and health of the inhabitants of the college, and to the improvement of its general appearance as a group of modern residences, have effectually swept away many a relic of ancient arrangements and domestic architecture. For it will be seen from the following descriptions, that every especial characteristic of the Benedictine monastery has vanished from Worcester, excepting the refectory, the fragments of dormitory walls, and some vaults attached to them.

[3] In Mr. Drattington's MSS., vol. viii. p. 405, now in the Library of the Society of Antiquaries, is a transcript of a chapter document, headed, "Nov. 6, 1660. Damages done to the Cathedral Church of Worcester (as is supposed) by the Late Powers" (from H. Clifton, Esq., Reg., Sept., 1829). This is a schedule of lead, timber, &c., taken from the church and buildings during the Commonwealth, and, as the date shows, was drawn up very soon after the Restoration, which dates May 29, 1660. This schedule, which it is unnecessary to transcribe at length, begins, "The Lead taken off the great Spire 60 Foth^{rs} w^{ch} at 20 li. y^{e} fother (all charges accounted) comes to 1200. It. Timber 800 Tunnes at 26 s. *p.* Tun and work in the sayd spire 600 li. (comes to) 1640. It. Lead taken off the Roof at the East Cross & the Lead Pinnacle 85 fother at the rate aforsaid (comes to) 1700. It. Timber 20 Tun. 26 li. Carpenters & Sawyers work 30 li. (comes to) 56." Similar particulars follow of lead and timber taken from the vestrys, chapter-house, cloyster, Mr. Boughton's house (Stephen B. 3rd stall) (namely, the house at the west end of the Refectory, W.), lead from the Deane's Hall, lead and timber from the Dormitorie, the Gate House, and Queen's Chamber; the conduit pypes 2140 yards and pipes to offices. The Conduit Houses clean pulled down and the lead cistern. The total estimate is 8204*l*.

The cloister and chapter house, and the close gateways, are features common to all capitular and monastic bodies, and are here maintained in substantial repair. But the crumbling nature of the material of which all the monastic offices here were built, has so effectually destroyed their remains, that we look in vain for the picturesque fragments and walls that embellish Canterbury, Rochester, Ely, Peterborough, and many other monastic sites, in the districts where a more enduring stone has been employed.

The later changes to which I have alluded are due to the operations of cathedral reform, and must be examined and recorded to enable us to preserve the evidence for the position of the destroyed remains.

Amongst other results of the Church and Cathedral Commissions of Enquiry, &c., which commenced in 1835, was the reduction of the number of canonries in this cathedral, and in most others, to four. This reduction was brought about, by not filling up stalls as they became vacant, until the desired limit had been attained. The separate estates of the dean and canons and other officers were transferred to the Ecclesiastical Commissioners, and the incomes of future deans and canons were limited to a fixed sum paid to them by the same Commission.

The effect of these measures upon the buildings was to vacate in succession six of the ten old prebendal residence-houses. It was also agreed that as the deanery buildings were decayed and inconvenient, the dean should be transferred to the ancient episcopal palace on the north-west side of the cathedral.

An opportunity was thus given for improving the college, and relieving its crowded condition, by pulling down the deanery and the smaller or worse-placed prebendal houses, and assigning the space so set at liberty to the enlargement of the gardens of the remaining houses, or to widening and improving the roadways and open spaces around the cathedral.[4]

In the annexed plan of the college buildings I have inserted the sites of the destroyed prebendal houses, whether they contained ancient remains or no, and have numbered

[4] The same course has been pursued in other cathedrals for the same reasons, as at Canterbury, Ely, Norwich, &c.

them in respect to the stalls to which they were respectively assigned.

Of these houses Mr. Perkins informs me that No. 4 (the location of the hospitalarius) was pulled down in 1841. No. 8 in 1843. The deanery (or ancient priory), and Nos. 6 and 7 (the places of the pittensarius, cellerer, and coquinarius), in 1845. No. 5 (on the site of the infirmary), in 1851; and finally, the guesten hall, in 1862.

Their sites were cleared and laid bare, and all the portions of ancient walls or other remains which they probably contained, and which might have assisted in elucidating the minor arrangements of the monastery, have passed out of the memory of man, with the exception of the remains of the priory. Happily Mr. Perkins made sketches of the deanery which occupied its site, before it was demolished, and has most kindly submitted them to me.

The houses that have been retained are those that occupy the places of the tumbarius, or shrinekeeper, No. 2; of the subprior, No. 3; of the magister capellæ, No. 9; and of the eleemosynarius, No. 10. The original prebendaries of the first stall were placed in the sacrist's lodging (at 12 on the plan), as I have mentioned in the first part of this history. The house marked No. 1 in this plan was built soon after 1712 for the stall, and is one of those which has been retained.

At Worcester the monastery is on the south and west sides of the church, the episcopal residence on the north. The bank of the Severn is within 150 feet of the west end of the cathedral, which is however placed on ground considerably elevated above the level of the water. The entrance gateway (41) of the monastery is on the east side of its precinct. This gateway is now known by the name of Edgar's Tower, but is in the older documents termed the College gatehouse.

There is a great, but hitherto I believe unnoticed, resemblance between the arrangements of this monastery and that of Durham, which, like Worcester, stands on the east bank of a river, has its dormitory on the west side of the cloister, its infirmary at the river side, its outer court or college yard on the south of the cloister, and its entrance gate on the east of it. This coincidence in general plan is the more valuable because the copious explanations of the

arrangements of the Durham monastery in the well-known "Rites of Durham,"[5] thus often become extremely useful in elucidating the corresponding parts of Worcester.

I will now proceed to describe the remains of the buildings about the cathedral in succession, premising that I have no intention of writing a complete account of such a monastery as Worcester might have been; on the contrary, I shall confine myself to showing what information concerning this or that department of monastic life may be derived from the accidental preservation of traces or remains of the buildings appropriated to it at Worcester. A course which I have habitually followed at the annual meetings of the Institute.

But there are several points of interest with respect to demolished buildings on the north side of the cathedral that may be first mentioned, and which are shown on the annexed plan.

Beginning at the west end, the south extremity of the grounds of the EPISCOPAL PALACE are seen, the palace itself lying out of the bounds of the page. This, which I have not had leisure to examine in detail, retains many portions of Early English and later work; and there is a large hall, with an Early Decorated window at the west end, and beneath is a vaulted apartment with a similar window. The curve of the arched ribs of the vaults is of the peculiar triangular form at the upper part which characterises those of the central vault of the nave. There are also several windows in another part of the ground floor, with plate tracery, and other remains which well deserve study. The house itself has undergone so many changes to adapt it to modern purposes, that its original disposition is lost.

Near the north-west end of the church, Bishop "Willelmus de Bleys," or Blois, constructed a chapel of elegant workmanship, between the great church and the bishop's

[5] The well-known Rites of Durham, and Durham Household Book, published by the Surtees Society, give some extremely curious information in relation to the actual economy of monastic life. The first is a record in English of the rites and ceremonies of this particular monastery before the suppression, written in 1593, probably by one of the members of the dissolved house. It is not a systematic or complete account, is very copious on many points, and omits many others; but the peculiar and unique nature of the information it does furnish renders it of the highest value for the elucidation of monastic buildings considered with respect to their purpose. The Durham Household Book, which is the Bursar's account book, from 1530 to 1534, is for my present purpose also useful for giving the Latin names of the men and things which in the Rites are described in provincial English.

hall, having under it a sufficient crypt, in which he ordered the bones of many of the faithful to be deposited; whence the whole chapel is commonly called "*carnaria*," that is to say, the CHARNEL CHAPEL.[6]

This chapel was dedicated to the Virgin and St. Thomas, and endowed with four chaplains by Bishop Cantilupe. One of them was to be the *magister*. They were to eat together, to sleep under one roof, and to have one servant. Their number was increased to six priests by Bishop Giffard.[7] In Cantilupe's charter the *hospitium*, or dwelling-house of the chaplains, is mentioned, which, in a deed in 1578, is described as the house and priests' chamber at the *west end* of the chapel.

It was granted to the dean and chapter by Henry the Eighth, and in 1636 the chapel was prepared and fitted as a school for the scholars of the city, but, being damp and unwholesome, the school sometime after 1641 was removed to the refectory, and the chapel allowed to go to ruin. In 1677 a new house was built on the site of the old *hospitium*, (12) and the walls of the chapel taken down to the window-sills, so as to form garden walls. The house and the garden walls have since been cleared away, but the crypt (11) has remained with its contents to the present time, although inaccessible. Green[8] states it to be 58 ft. long, 22 ft. broad, and 14 ft. high, and to contain a vast quantity of bones.

It is a great regret that the buildings of this little establishment, a complete college in itself, should have been allowed to go to ruin in the seventeenth century.

The SACRIST'S LODGING (13) on the north side of the choir, with a stone preaching-cross opposite to it on the north, has been already described in my first part (pp. 40—42).

The CLOCHERIUM (14), a detached octagonal campanile, was of stone, 60 feet high, surmounted by a wooden spire covered with lead—in all, 210 feet high from the ground. It stood to the north of the north-east transept; so near to

[6] "Cum bone memorie Willelmus de Bleys, &c. . . quandam capellam apud Wigorn. inter majorem ecclesiam et aulam episcopi opere construi fecerit eleganti, et sub eadem cryptum competentem in qua multorum ossa recondi fidelium constituit defunctorum, in qua quidem tota capella predicta *Carnaria* vulgariter nuncupatur."—Carta Walteri de Cantilupo de capella Carnaria, A.D. 1265, ap. Thomas App. No. 43.

[7] "Simul comedant, et in una domo simul dormiant."—Carta Walteri. "Omnes vivere communiter, sub uno tecto dormire, et ad refectionem dormitionemque horis competentibus convenire."—Nova ordinatio, 1287. (Thomas, App. Nos. 43 and 61).

[8] Page 56.

it that there was only space between for processions. The diameter of its base was 61 feet. These and other particulars are preserved in Dr. Hopkins' and Mr. Tomkins' notes.[9] The leaden steeple was taken down and sold in 1647. The stone basement, however, appears to have remained longer, as it is shown standing in one storey in a drawing executed about 1670. The whole structure is exhibited entire in Hollar's View of the Cathedral, 1672, given in the third volume of Dugdale's Monasticon. It appears wholly destitute of architectural ornament or beauty —probably because the decay of the stonework had reduced the surface and destroyed the angles and details of the masonry.

The parish church of St. Michael (16) was annexed to the *clocherium*, the east wall of the latter having been used as the west wall of the former. This church was rebuilt on a different site in 1842.[1]

We may now pass to the monastic buildings, beginning with the cloister.

THE CLOISTER.

The cloister itself is a somewhat irregular square of seven bays or severeys on each side, exclusive of the four angular severeys.[2]

Its outer walls are substantially Norman, but the architecture of the arcades and vaults is wholly of the fourteenth century, belonging to the period of Bishop Wakefield, when the nave of the church and so many other works were carried on. In Dr. Hopkins' Notes we find "The Refectory and Cloyster *built* 1372," which merely indicates that the works of these two were in progress at that date.

It must be conjectured that the Norman cloister had a wooden roof resting on an arcaded stone wall, toward the central garth, as is the case now at Durham and Bristol and in other examples.

The vaults of the present one are complex rib vaults, of an ordinary pattern, each compartment having in addition

[9] Vide Appendix.

[1] Its external appearance is shown in one of Storer's engravings.

[2] The length of the eastern wall is 125 ft., and of the other three 120 ft. The cloister garth about 83 ft. square. Durham cloister is 145 ft. square. Salisbury and Norwich about 180 ft. Canterbury, 132 ft.

to the transverse and diagonal ribs, one intermediate rib between each of the former, which crosses the ridge rib and proceeds to meet upon the diagonal rib the intermediate rib from the neighbouring angle. Knots of foliage or devices cover the intersections of the ribs. The arcades towards the central space were filled with tracery glazed as windows, but the glass having been destroyed in the Civil Wars, and the tracery much damaged, it was wholly removed in 1762, and the present miserable substitutes inserted.

Each archway is closed by a wall pierced by a window which has mullions and tracery in heavy stonework of a bad pattern, destitute of foliation, and unglazed. The whole effect of the cloister, which was in itself a very good specimen of architecture, is completely marred by the contrast of these clumsy insertions with the elegant traceried panelwork which adorns the jambs and soffits of the arches they encumber. In these arches, in some one of the walks of the cloister, must have been placed the carrels or studies of the monks, of which traces are seen in many of our cloisters, and which are explained in the "Durham Rites."[3] There the north side of the cloister was thus fitted up. Each window was of three lights and glazed, and in every window three "*Pewes* or *Carrels*, where every one of the old Monks had his carrell severale by himselfe, that when they had dyned they dyd resorte to that place of cloister and there studyed upon there books, every one in his carrell all the afternonne unto evensong tyme.—All these carrells was all fynely wainscotted and verie close, all but the forepart which had carved wourke that gave light in at ther carrell doures of wainscott. And in every carrell was a deske to lye there bookes on. And the carrell was no greater than from one stanchell of the wyndowe to another. And over against the carrells against the church wall did stande sertaine great almeries (or cupbords) of waynscott all full of Books."

The piers which separate each arch of the Worcester cloister from its neighbours are pierced by an opening like a small archway, or rather *ambrey* without a back, about three feet from the ground, and the angle pier is also pierced at the same level with two openings crossing each other, so that an eye placed at one of these angle piers can look at a glance

[3] Rites, p. 70.

through the whole series of openings in that walk of the cloister. It is not easy to perceive what useful purpose could have been served by these. Perhaps wooden ambreys were fitted into them for the use of the students in the carrells next to them. But they occur all round the cloister, and a similar opening is even made in a pier which separates the two arches of the monks' lavatory in the western walk of the cloister. No traces remain to explain the actual use of these openings, which I am inclined to regard as an architectural device to lighten the piers in question.[5]

There is a peculiar arrangement of one portion of this cloister which is worth remarking. The north-east corner compartment of vaulting is separated from the next compartment to the south by a broad band of tracery panels forming a transverse rib (vide plan at 27, where the band is indicated by two parallel lines). A similar separation is introduced between the south-east corner vault and that which lies to the north of it (30). Thus the seven compartments of vaulting that belong to the east side of the cloister are cut off from the angle compartments at each end, by this broad rib of tracery, which occurs at no other part of the cloister in this manner. A broad strip of tracery panels of the same kind, however, ornaments the soffit of every arch of the cloister arcade, on the inner side of the windows.

In the cloister of Gloucester, began in 1360, transverse bands of the same style and nearly the same pattern are used to separate each corner severey of the cloister vaults from the two neighbouring ones,[6] so that on the whole, eight of these bands are in Gloucester cloister and only two in Worcester. The peculiarity of Worcester is that these transverse bands are only employed in the east walk, as if that side had been commenced in imitation of Gloucester, and that when the other sides of the cloister were proceeded with, the plan had been changed and the panelled bands omitted. The panelled bands at Worcester have this peculiar significance, that the

[5] Mr. Abingdon described the glass of the windows before its destruction (vide Thomas, p. 26). The east, north, and west panes of the cloister had heraldic glass with inscriptions to the memory of the donors. The latter pane had also in its glass memorial inscriptions to the ancient founders and benefactors of the monastery. The windows of the south cloister contained miracles of St. Wolstan with explanatory inscriptions. One of the north windows, glazed by Prior Fordham (1423 to 1438), supplies the date for glazing.

[6] Hereford cloister has similar bands at the only remaining angle, aud the west cloister of Ely starts from the wall of the cathedral with one.

arches they ornament are similar to the panelled arches of the cloister arcade, and therefore the two transverse arches that cross the eastern walk continue the series of panelled arches from the north and south walks up to the east wall of the cloister with good architectural effect. This will be seen in the plan.

The transverse panelled arches serve this good purpose, that they get rid of the extremely narrow window which occurs at the angle in those walks of the cloister in which these transverse arches are omitted. This may also be seen in my plan.

Now as the east walk of the cloister is 125 feet long, and the other three only 120 feet, it follows that if these panelled ribs had been employed at each angle, as at Gloucester, each severey of vaulting in the shorter walks would have been narrower than those of the east side by one twenty-fourth part. It might be supposed therefore that the panelled arches were introduced into the longer walk to enable the severeys to be made of the same width throughout the cloister, which is very nearly the case. The difference however appears too small to be appreciable.

Another remarkable irregularity of workmanship is observable in the east cloister. The door-way of the chapter house substituted for the original Norman door, when the present cloister was built, is naturally set in the middle of the severey of vaulting in which it occurs (the sixth from the north), being a handsome piece of work leading to a principal room of the monastery. But the centre of this severey does not coincide with the centre of the severey of the chapter house by 1 foot 9 inches, and therefore the entrance-door of the latter, seen from within, is most offensively out of symmetry. The Norman door of the chapter house, of which the arch head is still to be seen in the interior, on the wall above the intruded door-way in question, was placed exactly in the middle of its own severey.[7]

Three passages lead outwards from the cloister walks, all vaulted and all Norman. One (31) from the south end of

[7] It happens that if the transverse arches had been omitted, and the severeys of the east walk set out at equal breadth throughout, the centre of the severey in which the chapter-house door occurs, would have coincided with that of the chapter house so nearly, that no offence against symmetry would have occurred.

the east walk southward, is the entrance to the cloister from the outer court of the monastery, and has a plain groined Norman vault and a rich Norman arch of entrance (37) at its south end, facing the court. Its opening to the cloister at its north end, is by a plain doorway, and at this, probably, the porter was stationed, as at Durham,[8] to prevent strangers or others from troubling the novices or monks in the cloister.

A second passage (26) from the west end of the north walk, directed westward, was the way from the cloister to the infirmary.[9] The Norman staircase from the dormitory opened into this passage, as we shall presently show. The architecture of the passage is the same as that of the west end of the cathedral, and has been already described in illustration of that portion of the church. (See p. 94, *ante*.) It is vaulted in four compartments of ribbed vaulting.

The third passage (28, 29) in contiguity with the gable wall of the south transept, leads eastwards from the east walk of the cloister to the space lying south-east of the cathedral. This passage has an Early plain groined Norman vault without transverse ribs, and its walls are ornamented by two semicircular plain arches on each side above a stone bench. Each arch inclosing an arcade of three smaller ones, with molded edges resting on shafts.

When the treasury was built in the fifteenth century above this passage, its eastern extremity (29) was altered so as to terminate the passage outwards at its east end by two pointed arches. The larger one, on the north, gives direct access to the open space or monks' cemetery, the smaller one leads to a narrow passage which turns obliquely to the south-east and opened into the priory buildings, so as to give the prior a covered access to the cloister, and thus also to the church and monastic offices.

In monastic churches, the cemetery of the monks was usually placed on the south and east sides of the church, and doubtless that was the case in the cathedral of Worcester. A covered passage like the above existed at Durham, and its purpose is described in the "Rites of Durham" in a manner which is manifestly applicable, not only to the one we are

[8] Durham Rites, pp. 67, 72.

[9] In the old time there was no passage round the west end of the cathedral southwards, as now. The present thoroughfare was first laid open in 1750.

now considering, but to various other examples of the same in monastic churches.

The passage itself is in that document said to be "the PARLER, a place for marchaunts to utter ther waires, standing betwixt the chapter house and the church dour."—P. 44.

It was therefore one of those locutories or places in which the monks were permitted to converse or hold intercourse with strangers, of which there were several in each monastery, appropriated, one to the reception of guests, another for the mutual conversation of the monks with each other, another to the transaction of business with strangers, as in the case we are considering, and so on.[1]

But this particular *Locutorium* or *Parlatorium* was also employed as a passage through which the bodies of the deceased monks were conveyed to the cemetery beyond for burial.

Any monk attacked by sickness was first removed to the infirmary, and after death his body was conveyed to the "Dead Mane's chamber in the said Farmery," and at night was placed in the infirmary chapel. At eight o'clock in the following morning it was conveyed to the chapter house, "where the Prior and hole Convent did meat hime, and there did say there dirges and devotion. . . . And after there devocion the dead corpes was caryed by the monnckes from the Chapter house thorough the parler . . . standing betwixt the Chapter house and the Church dour, and so throwghe the said parler in the Sentuarie garth[2] where he was buryed." —P. 44.

The buildings that are in contact with the cloister are the nave of the church on its north side, and the south transept, treasury, and chapter house on its east side. The refectory occupies the whole of the south side. The lavatory and the dormitory the west side. The remains of these buildings with their appendages we will now examine.

The TREASURY of the cathedral is a series of vaulted rooms which were constructed over the Norman passage (28, 29) in 1377 (vide Hopkins' Notes), and partly supported by the piers added as already mentioned at the east end of it at

[1] For example, there was one at Winchester, where it was called the Slype, and one at Ely.

[2] The term *sentuarie*, or rather *cemetery* garth, is applied in the Rites of Durham to the monks' cemetery at the south side of the quire (vide p. 51).

the same time. It also extends over the triangular compartment which is included between the east end of the passage and the chapter house. This now contains a modern staircase to the treasury rooms. The original access was from the south-west corner of the vestries (E) by a staircase which is defended by singular openings in its vault after the manner of machicolations. I have described this building at length, with detailed plans, in "The Transactions of the Institute of British Architects," for the present year, to which I beg to refer.[3]

THE CHAPTER HOUSE.

The Chapter House is in many respects one of the most interesting structures about the cathedral. Originally a circular Norman edifice, it was erected complete and vaulted with a light tufa, the vault resting on a central pillar from which ten semicircular ribs radiate to the walls, where they are received upon as many vaulting shafts, which divided the outer wall into ten compartments. Each compartment was lighted by a single round-headed Norman window, the traces of one of which, which I discovered in the chambers of the adjacent treasury, enabled me to ascertain the exact position and magnitude of these lights.

Below the windows the wall is ornamented with a rich intersecting Norman arcade, beneath which is a range of shallow niches resting on a continuous stone bench. The latter has been unfortunately cut away all round to make room for

[3] The treasury is described by King in his Munimenta Antiqua, vol. iv. p. 157. He calls it *the Monks' Prison*, and explains the arrangements on that hypothesis. He states that the "ascent from the south isle was secured, not only by a strong door at bottom with cavities remaining in the side walls for an exceeding strong bar," but also by several machicolations the whole way over head. From this sort of fortified appearance a tale has taken rise, and is commonly told by the guides of its being the apartment where "Oliver Cromwell resided during his stay at Worcester."

He does not appear to have found his way into the west chambers of the treasury. In the north wall of the great room, on the left-hand side of the narrow staircase door, is a square recess, like an ambrey formed in the wall. At the back of this a square hollow pipe, about six inches diameter, proceeds slanting downwards through the thickness of the wall, which formerly, as King says, "within the remembrance of several persons still living, had its lower end opening quite through the wall (of the south cross isle) in a sort of loop." It was stopped up, as he relates, by the monument of Bishop Maddocks being fixed exactly against it. He rightly conjectures it to have been what he terms "a *Spying Pipe*," in modern language, a *hagioscope*, to enable his "prisoner" to witness the mass. Of the narrow doorway near it he absurdly remarks, that "It would be allowing an idea much too ridiculous to apprehend that this doorway was designed as a *gauge* for any fat, gormandizing, gluttonous monk, who might be confined here till he should be able to pass through it."

the bookcases with which the walls were lined, but which were removed immediately after the visit of the Institute. The niches and the whole arrangement is exactly similar to those of the Norman chapter house at Bristol. The intersecting arcade is the same in general design as that which forms a continuous belt of decoration round the external wall of Ernulf's Crypt, at Canterbury (vide my Arch. Hist. of Canterbury, p. 87). It also occurs in the interior wall of the chapter house at Rochester, the recorded work of the same Ernulf, and in other examples.

The vaults of the chapter house are groined, but as ribs were substituted for plain groins in Norman work, about the beginning of the twelfth century, we are justified in assigning the commencement of the chapter house to the end of the eleventh century.

The scraping of the walls obligingly performed at my request, under the direction of Mr. Perkins, developed the curious fact that the Norman decoration is built with stones of two colors, as in the transepts already described. Externally the chapter house as originally completed appeared as a cylindrical building with shallow Norman buttresses, one of which may be seen in the small chamber on the north-west, which now contains the staircase to the treasury chamber. Another buttress remains in the passage which once led from the cloister to the priory buildings.

The treasury, built between the chapter house and the south transept gable, in 1377, in contact with both, has preserved these traces of the outer work of the chapter house, but the remainder of its exterior was transformed, about the year 1400, into the semblance of an Early Perpendicular decagonal building with deep thin buttresses at the angles, surmounted with pinnacles and having rich tracery windows.

The exact nature of this transformation, which I succeeded in completely investigating, cannot well be explained without plans and drawings, for which I beg to refer to my paper already mentioned.

It is however a most instructive example of the methods pursued by mediæval architects in their restorations. It was not the result of a wanton desire to bring the old building into harmony with the fashion of the time. On the contrary, the settlements of the Norman work, which I examined and measured with great care, show that the whole of the walls,

excepting the north part, which was connected with the treasury, had been pushed outward by the vault to an extent which threatened the fall of the whole. In the repairs that followed, the external surface of the thick Norman wall was cut away and re-ashlared, reducing the thickness from 4 ft. 6 in. to 2 ft. 9 in., measured in the centre of each compartment. The surface was by this new casing changed from cylindrical to flat, and the weight of the walls, which overhung at the top was thus reduced, and by the new casing they were made vertical. The angles were provided with effective thin projecting buttresses instead of the flat Norman ones, practically useless.

In the interior the lower part of the walls with their rich Norman arcading was left unaltered. The vault cells, originally low and semicircular, were changed for high pointed vaults, effectively resolving the thrust of the whole vault upon the angles where the new buttresses were placed, and large traceried windows inserted instead of the small Norman lights.

The whole principle of the repair consisted in remedying the defective mechanical construction of the Norman masons, whose vault had pressed the walls outwards more or less all round. Nothing more was done than was absolutely necessary to introduce their improved constructive system, and thus to ensure the stability of the edifice. The Norman work was in the interior respected as far as possible, the central pillar and the semicircular ribs, with all the central portion of the vault, was carefully retained.

THE DORMITORY AND COMMON HOUSE.

The Dormitory is in the unusual position of extending lengthwise and westwards from the cloister wall towards the river. It was 120 feet long and 60 broad, and according to Dr. Hopkins' notes, was "supported by 5 large Stone Pillars."

The present remains are but scanty. It appears not to have been employed for any useful purpose from the time of the assignment of these buildings to the prebendaries at the Reformation, and at the Rebellion the Puritans unroofed it for the sake of the lead and timber, and left its walls standing. Since that time their materials have been employed as required for various building operations, until they have been reduced to the fragments that exist. These are, the whole length of the eastern wall, which is in fact part of the western

wall of the cloister. All that portion of the northern wall which is the south boundary of the Norman vaulted passage (26), already described as leading from the north-west angle of the cloister towards the infirmary. Lastly, a small fragment now about 36 feet in length (20), of the south wall, but which existed to more than double that length, until twelve or fifteen years since, when it was reduced to its present dimensions on the ground of its having become dangerous

This last fragment is only about 15 feet at the highest point above the grass, it has on the inside surface Norman pilasters upon which rest the abutting portions or springing blocks of the compartments of a groined vault, the arch of which is four-centered. Between the pilasters is a window with Perpendicular tracery in the head, showing it to have consisted of two lights.

Mr. Perkins remembers the longer fragment of a wall which retained other windows of a similar character. At the western end of the remaining ruin there is a round-headed aperture in the wall from which a Norman arch-way appears to have been removed, and a thin wall containing a square-headed two-light Perpendicular window inserted.

These appearances agree perfectly with the few historical fragments that remain. They show that the original Norman dormitory was repaired in the fourteenth century by receiving a new vault and tracery windows, the Norman walls and pilasters of the original vault being retained. Accordingly, in 1302, the writer of the "Annals of Worcester"[4] says: "On the second idus of July the fall of a great portion of our dormitory, which had long menaced ruin, made manifest our negligence." The dormitory is also mentioned in Dr. Hopkins' Notes as one of the works carried on in 1377.

Evidently it was the Norman vault that fell to ruin in 1302. It must be remembered that the windows and vault just mentioned are not those of the dormitory itself. The floor of this, like that of the neighbouring refectory, must have been raised upon a vaulted substructure which was occupied by various monastic offices, and the state of the high eastern and northern walls that remain shows this to have

[4] "Magna pars ruens in dormitorio nostro, quæ a multo tempore ruinam minabatur, nostram negligentiam manifestat."—P. 527.

Green writes that the dormitory was begun in 1375, and in August, 1377, was furnished with beds. This is not now to be found in Dr. Hopkins' Notes or in Brown Willis' Mitred Abbeys, from which Green quotes in his margin.

been the case at Worcester, where the level of the floor of the dormitory was about 9 feet above that of the cloister. The ruin of this sub-vault was in fact the ruin of the floor as far as the dormitory was concerned.[5]

The width of the dormitory, 60 feet, makes it probable that it had a double roof sustained in the midst by a row of five pillars standing on the piers of the vaults below,[6] thus far agreeing with Dr. Hopkins' Note.

I have already said that the south wall of the Norman passage, from the cloisters to the infirmary, was the north wall of the dormitory, and that there is also a chamber above this passage. The passage itself has three openings in the south wall now walled up, but which originally communicated with the sub-vaults of the dormitory. The first opening (25) near the west end of the passage is a plain round-headed Norman doorway, of which only the outer continuous molding is visible. This led into some apartments fitted up in the sub-vaults. The next opening, about the middle of the passage, appears to have been a kind of window to admit a borrowed light to the sub-vaults. It has a pointed arch and a plain continuous rebate on the pier and arch. Its sill is arised considerably above the pavement. The third opening (24) near the east end of the passage is a plain semicircular doorway.[7]

On the other side of the wall, the north wall, namely, of the dormitory, we find the last-mentioned doorway opening with a segmental-headed rear-arch into the sub-vaults, and also leading to a staircase in the thickness of the wall, only 2 ft. 3 in. wide, and therefore just sufficient for a single person to ascend, unless he had attained to the diameter popularly supposed to characterise a monk. Around this doorway the abutments of a semicircular vault of the substructure are seen on the surface of the wall, showing that in this part the

[5] This may account for the long delay that took place before it was repaired. The floor could be temporarily supplied by boards and timberwork, and gradually replaced by masonry.

[6] The piers of the vault have disappeared, but the spacing of the remaining pilasters of the vault show that the number of severies in the length was six, and therefore five piers were required.

[7] The earth on the inside of the dormitory is now about two feet below the level of this passage and of the cloister. This earth is considerably above the original floor of the substructure. But as the ground slopes very considerably towards the river, the low level of the floor did not prevent the sub-vaults from being perfectly drained and habitable. At the dotted line (21) Mr. Perkins tells me that the pavement suddenly changed its level, so as to increase the height of the apartments at the east end.

Norman vault had not been destroyed. The thickness of the wall (5 feet) is reduced by setting it back above this vault, at the level of the dormitory floor, and it still rises 12 or 14 feet higher than that level. The staircase just mentioned in the wall ascends to the west and was terminated on the level of the dormitory floor at a deeply recessed opening, but is now walled up.[8] The head of a pointed arch is seen at the back of the opening. The staircase however must have opened southwards upon the dormitory floor. It was therefore the original Norman staircase from the dormitory to the cloister and thence to the church, agreeing in position with the dormitory staircase at Durham.[9] The surface of the east wall of the dormitory, which is also the west wall of the cloister, has been subjected to so much patching and casing as to obliterate altogether the traces of the springings of the sub-vault excepting at the north corner, where, at the level of the dormitory floor, is the trace of a small pointed Norman doorway walled up, which led up to the cloister roof, and a little to the south of this a plain Norman arched recess, perhaps a window, before the present cloister was made, the head of which is about 6 feet above the dormitory floor, its jambs below are altered, and the whole appearance of this wall seems to show that some building had been erected against it subsequent to the Reformation, for the use of the adjacent prebendal house. There are two doors in this wall opening from the cloister, the northern (23) small, four-centered, and walled up ; the next to it (22), which has a large handsome Late Perpendicular archway on the cloister side, is now contracted to a

[8] In Britton's plan the staircase is shown to turn and rise to the north so as to lead to the apartments over the Norman passage. It was perhaps traceable at that time; but Green and Thomas and other old plans mark a door (23), now walled up, but which opened into the cloister from the sub-vaults near the north wall of the dormitory, as leading (by this staircase manifestly) to the old library over the Norman passage (26), which Green imagines to have been the spital, without any authority.

[9] Many dormitories have also a direct staircase into the church for the nocturnal services, and this may have been the case at Worcester, for the monks may have passed through the room over the Norman passage, and thence down the south-western turret into the church.

The clumsy piers and flying buttresses that now rest against the west part of the north wall of the dormitory are modern props, and the lower part of the wall has been so interfered with by repairs, that scarce a fragment of its old surface remains. The present north garden wall, which bounds the western part of the dormitory ground beyond the Norman passage, in a line considerably to the south of the high ancient wall above described, was built about ten years ago instead of a similar one which stood on the foundations of the old dormitory, in a line with the remaining part.

common square opening which serves to give entrance to the canon's garden.

The last-mentioned doorway in the cloisters is called the entrance to the dormitory in all the descriptions and plans of the cathedral. But the existence of a vaulted substructure sustaining this dormitory floor has never been taken into account. Perhaps the repairs and alterations of the dormitory in the fourteenth century, when this great doorway was made, included a more convenient staircase to the floor above than the narrow Norman one in the thickness of the wall. Thus this doorway may have led to the dormitory itself, as well as to the apartments and offices in the sub-vaults. For the various doors which I have described show that the sub-vaults were divided into rooms for different purposes, as in other monasteries.

The traceried windows (20) already described in the south wall of the sub-vaults show that some habitable room was fitted up there. This by comparison with Durham, and other examples, was the "Common House" or hall[1] which formed a part of every Benedictine monastery. "This house being," to use the quaint phraseology of the "Durham Rites" (pp. 75 & 84), "to this end, to have a fyre keapt in yt all wynta for the Monnckes to cume and warme them at, being allowed no fyre but that only, except the Master and officers of the House, who had there several fyres." This room with traceried windows looking west to the water and fitted up in the sub-vaults of the dormitory, still remains at Durham. It is also shown in the plan of St. Gall, in the ninth century, beneath the dormitory.[2]

At Durham there also "was belonging to the Common-house a garden and a bowling allie, on the back side of the same house towards the water, for the recreation of the Moncks, (or for the Novyces sume tymes to recreat themselves, when they had remedy of there master,) he standinge by to see good order kept."

The green on the south side of these windows at Worcester may well have been employed in a similar manner.

[1] The common house of the monks corresponds to the Oxford common room and Cambridge combination room in its earlier form, when there were no chimneys in the chambers, and a common fire was kept for the scholars to warm themselves.

[2] Vide my description of the Ancient plan of S. Gall; Arch. Journal, vol. v. p. 85. See also *Pisalis* in Ducange.

(*To be continued.*)

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THE ARCHITECTURAL HISTORY OF THE CATHEDRAL AND MONASTERY AT WORCESTER.

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PART II.—THE MONASTIC BUILDINGS.[1]

THE INFIRMARY AND ITS APPENDAGES.

Between the dormitory and the river is the house, No. 9, and on the north of it the site of No. 8. These stand in Dr. Hopkins' memorandum as "8th—9th; M^r^ Capellæ:" a local name for a monastic officer whose duties it is not easy to ascertain.[2] To the north of these houses, between the west end of the cathedral and the river, is the site of the infirmary, indicated by the house "5th, Infirmarius." No. 5 was destroyed in 1851, and No. 8 in 1843; no man recollects whether or no ancient walls or vaults were found when they were taken down.

The house No. 9 stands upon a substructure of excellent Norman rib-vaulting, of which I have given the plan. It was originally open from one end to the other, and is 70 ft. long and 13 ft. 6 in. wide, in five compartments, which opened to the ground without, by as many arches, 8 ft. 4 in. in span, resting on piers 5 ft. 6 in. thick and 5 ft. 8 in. on the face. Each pier having a buttress. Two buttresses also

[1] Continued from page 272, *ante*.

[2] Ducange defines him to be the one who presides over other chaplains. "*Magister capellæ*, qui cæteris capellanis præest." Accordingly there existed in this monastery the charnel chapel already mentioned, endowed for six *capellani*, one of whom was *Magister*. But he was bound to reside in the hospitium attached to the west end of the chapel.

The Magister capellæ above mentioned, may, as Green suggests, have presided over the priests of the Lady chapel and infirmary chapel, to the latter of which his lodging was contiguous. As we have no record of the endowments of these chapels or of the foundations of chantries in the cathedral, it is impossible to speak with precision upon this point.

projected westward from the gable which stands on a high bank next the river.[3] The east end of the building is in contact with the dormitory, and two pointed arches, one large and one small, communicated with the substructure of that building. The south wall of this building is in the same line as the dormitory wall. The vault ribs have plain chamfered edges and Norman corbels in the form of a semi-octagonal festoon capital and abacus with a short shaft below resting on a conical bracket. The transverse ribs are stilted semicircles, the diagonal segmental as usual.

In the second compartment from the east a doorway with Decorated moldings opens to a passage now walled up, so as to form a mere recess 7 feet deep from the face of the wall. This may have communicated northward with the vaults (17) about to be described, or laterally either on the right to a passage staircase in the thickness of the wall, or to the left with a turret stair of which a fragment remains above, in the position indicated by a white circle in the plan (at 19).

The vaults (17) beyond, to which access is now obtained from the adjacent house, are of a later Norman, springing from corbelled capitals of the same kind as those already described, but some of the ribs have pointed arches, and the north wall (18), more than 5 feet thick, has windows in it. These windows consist of a pair of plain-pointed lights separated by a narrow mullion. The space into which these windows opened is now filled up with earth, as is the space between the vaults shown in the plan (17) and the river, so that the original extent of this vaulting cannot be ascertained. Three compartments and one isolated pillar are open, and used as a cellar, but the series evidently extended farther west. The fourth compartment (in dotted lines in my plan) is filled with earth, so as to make it impossible to trace the end of the passage above described as leading from No. 9.

The whole house—No. 9—above its Norman vaulting, is

[3] From its peculiar long and narrow form, its position with respect to the dormitory and its proximity to the river, this must have been the monastic *necessarium*, which was thus placed at Durham, and is described as a "faire large house and a most decent place, adjoyninge to the west syde of the said dorter towards the water" (Rites of Durham, p. 72), and indeed is always contiguous to the dormitory in all the specimens of this monastic office which I have had the opportunity of examining.

of comparatively modern construction in walls, floors, and staircases, with the exception of its back or north wall, which rises to its roof, and is an ancient wall of red sandstone. The turret staircase (19) projects outwards from that wall, and reaches the roof; it is now in the form of a quadrant, and is plastered outside, but Mr. Perkins informs me that it is really of stone.

This ancient wall retains on the east side of the turret close under the roof a plain Norman arched window walled up; and on the west side the traces of a pair of arches, also walled up and partially covered by a huge brick chimney-stack built against the ancient wall.

But Green, who wrote when the house No. 8 was standing, tells us (p. 98) that "two lofty walls of the infirmary yet remain, and constitute, one, the south side of the eighth prebendal house; the other, the north side of the ninth:" from which I imagine that the south wall of No. 8 must have exhibited signs that showed its outer face to have been formerly an inside face. This is corroborated by the windows (18), which I discovered in the vaulted basement, and have just described; for the wall which contains these windows is part of the south wall of the demolished No. 8.

It is probable, therefore, that the intermediate space between Nos. 8 and 9 was occupied by a building whose roof was supported to the south by a wall close to but independent[4] of the high wall of No. 9, and so much lower as not to interfere with the windows of the latter, above described, which appear to be placed high up for the purpose of clearing another building.

This building, being placed east and west, may have been the infirmary chapel, with an entrance and chamber for the master attached northward to the west end of the north wall; and thus the appropriation of the name, "Magister Capellæ," to the 8th and 9th houses would be accounted for.

THE SUB-PRIORY, REFECTORY, KITCHEN, &c.

Returning to the cloister, we observe that the sub-prior was lodged (as the house No. 3 shows) at the south end of

[4] The thickness of the separating space between the two series of vaults at the east end, which by careful measurements I ascertained to be not less than ten feet, seems to indicate that it carried two independent walls above.

the west cloister (where the door 33 is placed), and therefore in convenient contiguity with the dormitory, and close to the refectory; part of his duties being to keep order in the dormitory, to dine and sup with the convent,[5] and to keep the keys of all the doors at night.

The refectory, which occupies the entire south wall of the cloister, is 120 feet in length, the same as the dormitory, and 38 feet wide. Building work about it was going on in 1372; the windows, five on each side, have modern flowing tracery, perhaps copied from the old tracery, and it has a modern roof.

The LAVATORY—"*Laver*, or *Conndit*, a long trough, for the Monncks to washe ther hands and faces at"[6]—is placed within two recessed arches sunk in the west cloister wall (at 34) in the two compartments north of the south angle compartment. It was thus conveniently near to the refectory. We may suppose that, as at Durham, there was a bell hung near the lavatory to give warning "at a leaven of the clock for the Monncks to cumme wash and dyne, having their closetts or almeries on either syde of the Frater House door, keapt alwaies with swete and clene towels to drie ther hands."

This lavatory was supplied with water by an aqueduct from Hilnwick Hill, distant from the cloister about 1600 yards. The conduit-pipe was first laid down in the eighth year of Henry IV., and was torn up in the Civil Wars (vide Thomas, p. 8), and the lead embezzled (vide p. 255 above).

At the south-west angle of the refectory stood the kitchen, the lower part of whose octagon walls (36) existed until the demolition of No. 7 in 1845. They were first described by Green.[7] Spacious Norman vaults extend under the whole of the refectory, sustained by a row of central pillars, short, cylindrical, and having a circular abacus. The vaults are groined, of early Norman rough construction, and lighted by small round-headed Norman windows in the basement of

[5] Rites of Durham, p. 73. There, however, his chamber was over the dorter door (at the west end next the church), "to the intent too heare that none should stir or go forth."

[6] Rites of Durham, p. 70.

[7] "THE KITCHEN.—At the back of the seventh prebendal house, which anciently belonged to the *Coquinarius*, the remains of a spacious octagonal apartment has lately been discovered, 34 ft. diam., and height, from the present bottom of it (above its original floor), is 11 ft. Its connection with the refectory may be traced by several divisions of covered passages directing their course towards its west end, where, under a large arch long since closed up, their common intercourse was carried on."—Green, p. 81.

the south wall, towards the outer court. These vaults were, in part at least, assigned to the cellerer, who, together with the "pittensarius," was lodged at the west side of the kitchen, as the position of the demolished No. 6 shows. Passages connecting these vaults and the refectory above with the kitchen and other offices still exist under the house No. 3.

The nature of these lodgings of the cellerer, and some of the other monastic officers, is best explained in the "Durham Rites," which show that every one of them, to whom was entrusted the receipts or expenditure of the department assigned to him, or the management of the stores supplied to or consumed in it, had a room in its appropriated buildings, in which he transacted the daily business of that department. This was termed the "scaccarium," or "checker,"[8] of that officer. We should now call it his counting-house or his office. But these officers slept in a chamber in the dormitory or in the infirmary, and had their meat served to them from the kitchen to their checker, not dining in the refectory.

For example, at Durham, the cellerer's "office was to see what expenses was in the kitchinge, what beffes and muttones was spente in the week, and all the spyces and other necessaries that was spente in the kitchinge, both for the priors table and for the hole covent, and for all strangers that came. Yt was his office to se all things orderlye served and in dewe tyme." Accordingly, his checker "joyned the west end of the great kitchinge," but the "chambre where he dyd lye was in the Dorter."[9]

Thus, the cellerer of Durham and the cellerer of Worcester were lodged in the same relative position to the kitchen; and the pitanciary, an officer not mentioned in the Durham book, but who, having the charge of the pittances from the kitchen,

[8] Rites, p. 81, &c. Durham Household Book, pp. 126, 324.

[9] At Durham the cellerer's checker was assigned to the fifth stall, but the house of that stall also includes the lesser refectory of the monks, part of the dormitory, and other buildings; and so at Worcester, the residence houses could never have been confined merely to the lodging of the monastic officer indicated in Dr. Hopkins' Notes. Secular canons of cathedrals, as at Wells, Salisbury, &c., having no common table, and not sleeping under the same roof in a common dormitory, had, even before the Reformation, separate residences, with kitchens, stables, and servants' offices, and as time went on and wives and families were introduced into the prebendal houses, these were gradually enlarged or rebuilt, so as to assume their present form of an ordinary gentleman's house.

must have had a chamber, or "checker," near it, was at Worcester also on its west side, while the coquinarius (or *clericus coquinæ*) was placed on the south side, as the site of the seventh house shows.

THE OUTER COURT.

We will now pass to the so-called *College green*, the ancient CURIA, or outer court of the monastery.

This extends from the entrance gateway (42) now termed Edgar's Tower, but in the older documents the College gate-house, on the east, to the water-gate (43) or ferry-house on the west.

The north side of the court is occupied in order from the east as follows: Next to the gateway is the large modern house of the tenth stall, one of those which has been retained; it stands on the site of the lodgings of the eleemosynarius or almoner, and on part of the prior's lodging. The almonry is usually next to the entrance gateway; and at Durham the "almery" building was to the north of the gate, as at Worcester.[1]

Next to this was the southern extremity of the priory buildings, with an entrance (41) to them, probably a gate-way-tower. The south gable of the guesten hall (39) and its porch (38) came next in order; and beyond it a large prebendal house for the fourth stall, which was pulled down in 1841. This house is in Dr. Hopkins' Notes marked "Hospitalarius,"[2] under which term I imagine guest chambers to be included as well as the *checker* of that officer: and these chambers may have extended in front of the gable of the guesten hall, so as to form a continuous line of building from the refectory to the gateway; but there are no remains to show their original plan.

Beyond these chambers, the cloister entrance (37), and the south side of the refectory, continue the north border of the

[1] Rites, p. 77.

[2] The *Hostellarius*, otherwise termed at Durham "*Terrarius*" and *Terrer*, apparently by a corruption of *Hosteler*, was "to se that the geste chamber to be clenly keapt, and that all the table clothes, table napkings, and all the naprie with in the chambers, as sheetes and pillowes, to be sweate and cleane." He also provided wine for the strangers, and provender for their horses, but he slept in the infirmary (p. 83). His "*checker* was as yea goe into the geste haule of your lefte hand, in the entrie as yow goe in, or yea come into the great hall." This is exactly his position at Worcester with respect to the guest hall. But at Durham the guest hall and chambers occupied the whole west side of the college square, instead of the north as at Worcester.

college green; and at the western end of that building the kitchen, with its offices, already mentioned, projected southward.

The second prebendal house is modern, and Dr. Hopkins' Note shows that the "*tumbarius*" had his office or residence on its site. He had the charge of the tombs and shrines of SS. Wlstan and Oswald, and was perhaps the person appointed by the bishop and convent to receive the pecuniary offerings, and divide them between those parties, in accordance with the compact of 1224.[3] In other churches he was called the "Feretrarius."[4]

Of the ancient buildings on the south side of the College green, nothing is recorded. The name *Ovens*, still given to the house (44) at the west end of the south boundary, shows that the monastic bakehouse was there; and we may affirm, in accordance with other examples, that nearly the whole south boundary was occupied by the bakehouse, washhouse, stables, granaries, barns, malt-kiln, and such-like offices. The kitchen gardens were probably on the west boundary facing the river.

I have now only to describe the priory buildings and guesten hall, now wholly demolished, with the exception of a portion of the east wall of the latter, distinguished by the black line in the plan.

THE PRIOR'S BUILDINGS.

The only piece of recorded history relating to the building of the priory is, that, according to the Annals, in 1225 the prior built in August a new house, with its appurtenances, for himself, and finished it in December. Its rapid construction shows that it was built of wood.

[3] Vide page 99 above.

[4] "*Feretrarius.* Custos sacrarum reliquiarum in *feretro* reconditarum."—Ducange. Bishop Walter de Maydenston, in the first year of his consecration, is recorded to have made John de Briavel his sacrist, and Roger de Stynington tumbary, at his own palace in the Strand, March 19, 1314, and set forward to his diocese the next month.—Maydenston's Register, f. 2, ap. Thomas, p. 161.

At Durham he was called the "Maister of the Feriture," and was also deputy prior. He was there lodged in a chamber in the dormitory (Rites of Durham, Surtees, p. 78), and was the keeper of St. Cuthbert's shrine, and of the keys thereof. There was under him a "clarke of the fereture," who gave notice to his master when any "man of honour and worshippe," disposed to make his devotion and offerings at the shrine, wished to have it uncovered and see it. Then the master came with the keys and gave them to his clerk, who opened the locks and removed the covers.

"The dean hath the prior's house," saith Dr. Hopkins, but adds afterwards that the tenth prebendary has "part of the prior's." All this latter part disappeared when the modern house of the tenth stall was built. The sketches and notes kindly submitted to me by Mr. Perkins enable me to describe and plan the deanery as it existed immediately before its demolition in 1845. It consisted of a group of buildings with separate roofs, several of them retaining architectural traces of the fourteenth and succeeding centuries, the guesten hall itself included, which formed part of the deanery house. The principal entrance (41) was from the College green, next to the south-east corner of the guesten hall, and probably in the same position as the prior's original entrance. In the plan I have indicated the principal masses of building by the letters that form the word PRIORY, to avoid the multiplication of references.

The western building[5] (P) was of good stone architecture of the fifteenth century, and abutted against the treasury, blocking up one or more of its windows, and thus showing that it had been built after that had been finished. Part of it was in contact with the north wall of the guesten hall, which was there employed as its southern boundary. The lower floor had low rooms with plain, square-headed windows, and this was latterly employed as a granary and place for wood and coals. But the upper floor had a large room with an excellent oak-panelled ceiling of Perpendicular character. The panels were filled with plaster and painted with roses and stars. It was lighted by a large Perpendicular square plain headed window in two lights, with enriched heads and a transom. This room, of old one of the prior's chambers, was finally degraded to the purpose of a laundry.

A timber-framed structure (R), 27 ft. in length, and of the same breadth and height as the last, continued the range of buildings eastward. This covered the remaining part of the north wall of the guesten hall, and was also probably a relic of the priory.

At its east end stood a chamber (I) of stone, about 25 ft. square. The east wall of its lower story retained two flowing Decorated windows of the same character as those of the guesten hall. Its upper walls seemed to have been rebuilt,

[5] Forty-seven ft. long and 24 ft. wide outside the walls.

or at least altered by the insertion of sash windows. On the ground floor the building was separated from the Guesten Hall by a passage which had a door (40) opening through the north end of the eastern wall of the hall to the place of the high table, and therefore formed the communication between the priory and hall. The same passage was continued round the north wall of the hall, and led directly to the wall of the chapter house, and thus, by the Norman passage described above, to the cloister, as shown by the dotted lines.

This "stone chamber" had been converted into the dean's kitchen; and the north wall covered by additional buildings of timber, employed in conjunction with the wooden buildings to the west, as sculleries and other domestic offices, with servants' bed-rooms over. The whole, like the Guesten Hall, had fallen into a hopeless state of decay.

About six yards to the south of the room (I), stood an ancient hall (R); possibly the "Aula Prioris." It was between 40 and 50 feet long, 20 wide, and had an ornamental roof of the fourteenth century, of simple construction. A sketch of this is given in the "Builder" of May 13, 1848, taken just before it was pulled down. It is there stated that this roof had a very good effect. The hall was entirely built of timber-work.[6]

The interior of this hall had been fitted up with modern floors and partitions, so as to include the ordinary dining-room and drawing-room of the deanery on the ground, and the best bed-rooms above. The latter had Perpendicular panelled ceilings of good character. Modern sash windows had been inserted, and the ancient character of the exterior destroyed, with the exception of the barge board of the roof. The oriel (shown in Storer's sketch) was probably a modern bow window. This hall was joined to the stone room (I) by an intermediate construction (O), of the character of which no notes remain.

THE GUESTEN HALL.

We may now turn to the Guesten Hall. A guests' hall, or *Domus Hospitum*, for the entertainment of strangers,

[6] The dimensions of this hall agree with those of the "Spitall for lodging Pilgrims" mentioned in Dr. Hopkins' Notes (vide Appendix), and perhaps this may have been its traditional name preserved at the time when the writer quoted by Hopkins lived. The Perpendicular ceilings show that its original open roof had been concealed by alterations, but probably after the dissolution of the monastery.

with adjacent chambers and lodgings for their accommodation, is an integral part of a monastery. It was under the management of the hospitalarius. The house was also sometimes called the *Hostrie.* It even occurs in the plan of S. Gall in the seventh century, in the form of a large refectory, surrounded by chambers for the guests.

In the words of the "Durham Rites" [7]—"The haule is a goodly brave place, much like unto the body of a church, with verey fair pillers supporting yt on ether syde, and in the mydest of the haule a most large rannge for the fyer. The chambers and lodginges belonging to yt weare swetly keept, and so richly furnyshed that they weare not unpleasant to ly in. . . . . The victualls that served the said geists, came from the great kitching of the prior, the bread and beare from his pantrie and seller. . . . The prior, whose hospitallie was soch as that there neaded no geist haule . . . . did keppe a moste honorable house and very noble intertaynement, being attended upon both with gentlemen and yeomen of the best in the countrie, as the honorable service of his house deserved no less."

The guesten hall of a monastery has, in itself, no ecclesiastical character, and is merely the dining hall of its period, the same in form and arrangement as if it had been part of a dwelling-house, a college, a palace, or belonged to a city corporation. Its interest lies in the evidence of the secular form of profuse and luxuriant entertainment which the monks offered and exhibited to strangers, in contact and contrast with the affected frugality and plainness of their own neighbouring refectory.

A guest hall and chambers at Worcester are mentioned in 1300, where the annalist relates that upon occasion of the archbishop's visitation, he was lodged with his attendants in the prior's hall (aula prioris), because the great hall and the house of the guests were occupied by many unbidden visitors.[8] This must have been an earlier hall than the one that lately existed, for it is recorded, in one of the notes of Dr. Hopkins from the monastic records, that—"In 1320 Wulstan de Braunston, prior, built the great hall, commonly called gesten hall." De Braunston was prior from Nov. 21,

[7] P. 76.

[8] 'Quia magna aula hospitum et domus aliæ fuerunt occupatæ per multos hospites non vocatos."—Ann. Wig., 526.

1317, to 1338, when he was elected to the bishopric, and died in 1349.

The remains of this building which had reached our time were sufficient to enable its original form to be determined, and showed it to have been a very fine specimen of its kind; and although it has now disappeared, its details have been carefully preserved by several artists.[9] It stood north and south, and was, according to Mr. Dollman's measurements, 65 ft. 8 in. long, by 35 ft. 11 in. wide. Its walls were 36 ft. 8 in. in height from the floor to the top of the wall-plate. In fact, in walls, it was very nearly as wide as it was high, and its length not quite double its width. The masonry of its remaining north end wall was only carried to the level of the wall-plate. The gable above this was of wood framing, with foliated openings to let out smoke. The south gable was probably similar, but had been completely destroyed by the changes at that end. There were traces of a louvre in the middle of the roof for smoke; on the floor under this the brasier stood, as at Durham, and according to the method retained even to our own day, at St. John's and Trinity Colleges, Cambridge.

The principal frames of the roof were of a very low pitch, and of simple design, with a collar beam and arched braces below, having no other ornament than a bold molding on the lower edges. Two diagonal braces above the collar beam were so notched at the edges as to form with similar notches in the principal rafters a large complete quatrefoil opening, flanked on each side by trefoiled arch-heads. Each frame was received upon a short respond shaft rising from a corbel.

More ornament was bestowed upon the under surface of the roof between the frames. This, besides richly molded purlins, had arched braces carved with complex foliation and quatrefoil spandrils.[1]

There were five windows on each side of the hall, descending, with three exceptions, to within five or six feet of the floor, and all rising nearly to the wall-plates. Two of

[9] The most complete architectural drawings preserved are those of Mr. Dollman, in his Analysis of Domestic Architecture. Mr. Eginton, of Bath, published years ago a perspective restored view of the interior.

[1] The roof of the hall of the manor house, South Wraxhall, is ornamented with a somewhat similar pattern. Vid. pl. 14, Walker's Examples of Gothic Architecture, part 3.

these windows at the north end of the east wall were very short, by reason of part of the prior's buildings, which abutted against the wall at this place. A door (40), as already explained, below these windows gave access to this external building. The third short window was over the south-west porch door. A buttress was placed between each window, and also at each angle.

The mechanical structure of the hall was extremely bad. The principal frames of the roof, from their low pitch and general construction, exerted a great pressure outward, which might have been effectually counteracted had the buttresses been placed opposite to the frames. But the roof was divided by its principal frames into eight compartments, and the walls by their buttressed windows into five compartments. Consequently the frames pressed against the intermediate walls, weakened by the lofty windows, and not one of them against a buttress.

This want of harmony between the arrangement of the frames and windows was manifested to the eye by the short shafts and corbels above-mentioned, the shafts being cut longer or shorter, and their corbels placed at different levels, according as they happened to fall over the head of a window, or more or less on one side of it. This ungraceful and clumsy expedient was probably forced upon the original constructors by the absence of a proper understanding between the masons who built the walls and the carpenters who made the roof. But it will doubtless find its admirers and imitators in the asymmetrical school of antiquarian students. The tracery of the windows is flowing. There are two lights, and the principal lines in the head of the window are disposed in that common pattern which represents a trefoil, of which the central leaf is upright, and the lateral ones inclined to right and left. These three leaves are filled in with flowing tracery by a subordinate molding, the pattern of which is exactly the same in character, and in many parts identical with, the rose window of Lincoln cathedral.[2] Mr. Dollman has introduced a transom into his drawings of the windows. But for this there is no authority.

[2] Engraved in the Oxford Glossary, 4th ed. pl. 264. Of the nine windows only three retained any portion of tracery. These are in the portion of wall which has been preserved, and are on the east side, where the first on the north was perfect, the second had a fragment, and the last some decayed portions only.

The dais, or place of the principal table, was at the north end, and the entrance at the south end by a lateral western porch (38). In accordance with the usual arrangement of college halls, we may suppose the southern end wall, which was entirely destroyed and rebuilt in the last century, to have been furnished with doors leading to a kitchen, butteries, &c.

This hall seems to have been included in the dean's portion at the Reformation ; but we have no record of the use to which it was put at first, and can only judge from the condition in which it was found in our time, that it underwent a thorough transformation in the middle of the last century, when it was fitted up as part of the dean's house, and divided, by the insertion of two floors, into three storeys, like the guesten hall, now the deanery, of Ely, and many other monastic halls. The south gable wall was rebuilt from the ground, and the old roof above it hipped back, so as to allow the new south wall to be capped with a straight parapet. The front was ornamented with Gothic plaster work in the Batty Langley, or Horace Walpole style, which would place it about 1740. A small engraving in Green's "Worcester" preserves the aspect of this building under the name of the audit hall.

The three storeys were divided in the following manner (vide plan). A large door (39) in the centre of the new front was the chief entrance. This led to a passage which extended from one end of the building to the other. Three doors, on the right hand, in succession, opened into a large kitchen for the dean, looking into the College green, a servants' hall, and a coalhouse. The north wall of this kitchen was part of a transverse wall which rose to the top of the building, and had a stack of chimneys in it. On the left hand of the passage were doors opening to various domestic offices, to a brewhouse, and also to a staircase which led upward to the great dining-room. All these apartments were included within the walls of the old hall.

On the first floor was this great dining-room, which extended entirely across the old hall, and was 36 ft. in length by 24 ft. wide. It bore the name of the audit hall, and had three large round-headed sash windows looking into the court. It was bounded to the north by the transverse wall just mentioned. This room was used for the annual

audit dinners of the chapter till within the last five years, and it is to this room that Green alludes when speaking of the guesten or audit hall. He adds, that "the building is still sacred to hospitality, and the noble entertainments furnished here at the annual audits do honour to one of the most eminent capitular bodies." The remaining space of the first floor was appropriated to bedrooms, and there were garrets fitted up in the old roof above them.

Great attention has been directed to this hall by the futile attempts of certain antiquaries to obtain from the dean and chapter its preservation from the fate to which the deanery and the house on the west of the hall had been consigned. Had circumstances permitted, it would have been very desirable that a building so remarkable, and, at first sight, apparently so nearly in its original condition, retaining its roof, its walls, and windows, should have been cleared of the intrusive floors, chimneys, and partitions, and restored as a monument of antiquity. But unhappily it turned out, after a careful investigation by competent architects, employed by the capitular body, that the structure was in such a desperate state of ruin and decay, that it was only held together by the very partitions and floors, the removal of which was essential to the restoration desired. In fact, it must have been in a threatening condition when they were inserted. The restoration, therefore, would have absorbed a greater portion of the resources of the chapter than would have been justified by the object, especially considering that the all-important work of re-arranging and decorating the choir of the newly-restored cathedral, and repairing the cloister and chapter house remained to be done.[3]

If the building had been restored, and left as an empty

[3] Mr. Christian, the architect of the Ecclesiastical Commissioners, made a survey at the request of the chapter, in which he estimated the cost of merely clearing the interior of its floors and partitions, repairing the walls and buttresses, securing the roof, restoring the tracery and mullions of the windows, together with plain glazing and plain stone paving for the floor, at 1760*l.*, and the restoration of the west porch at 300*l.* This supposes the south front and its hipped roof to remain untouched, and no cleansing of the interior, warming it, or otherwise fitting it for the reception of public meetings to be made. Mr. Perkins, the chapter architect, made a similar estimate (Gent. Mag., 1860, vol. ii.).

This estimate was communicated to the antiquarian public by Mr. Christian, in a letter to the Gentleman's Magazine, dated July 26, 1860. He also stated that the building was the sole property of the Dean and Chapter, the Ecclesiastical Commissioners had nothing whatever to do with it; that the Dean and Chapter had no funds wherewith to meet the expense of repairing or restoring it; also that the Ecclesiastical Commissioners had no power to appropriate the money set apart for cathedral repairs to this purpose. In short, that

hall, its future preservation and repair could only have been ensured by appropriating it to some useful purpose, under the sanction of the chapter, who themselves had no use for it. But it was, in truth, extremely difficult to select any employment consistent with its peculiar position, being, as it was, the property of the chapter, within their private precincts, and close to the cathedral.

The result was, that notwithstanding the exaggerated general and local interest so confidently ascribed to the guesten hall by the promoters of its restoration, they were unable to agree upon any decided principle of action, and failed to raise a sum at all approaching to that required for the restoration.

The dean and chapter, finding that there was no chance of external assistance for this purpose, presented the roof of the hall to a new district church, and pulled down the walls, leaving, as a picturesque and permanent ruin, the only portion that had retained its architectural character, by having preserved its tracery. This, in truth, was the wisest thing to do. The degradation of the building had proceeded so far that in its restoration it would, after all, have presented the trim appearance of a modern copy of the original, deprived of its interest as an historical monument. Such being the case, the guesten hall may yet be reproduced by its admirers with equal effect by erecting such a copy upon another site.

APPENDIX.

In Baker's MS. vol. iii. (Harl. MS. 7030) p. 469, we find the following heading—"*Ecclesiæ Wigorn. Priorum Catalogus ex Registris et aliunde collectus.* Ex MS° Codice Willelmi Hopkins, Ecclesiæ Wigorn: Canonici, in custodiâ doctiss: viri Joannis Laughton, Canonici ejusdem Ecclesiæ."

This is followed by other lists and notes, occupying the pages up to p. 479, where we have "*Some memorials relating to the Cathedral Church of Worc:*" which are continued on p. 480.

The next page is headed "In eodem Codice habentur Statuta Ecclesiæ Cath: Wigorn. tradita ab Henrico Octavo Jul. 31, an. 1544." This shows that Baker has been all along copying from the manuscript of Dr. Hopkins mentioned at p. 469.[4] I will now give a transcript of the pages headed—

"*Some memorials relating to the Cathedral Church of Worc:*—

The length at present 394 feet, 131 yards ⅓, built by Oswald and afterwards taken down and repaired as far as the first cross Aisle by Wulstan.

unless the public came forward with subscriptions for the work, it must of necessity be numbered amongst the things of the past.

[4] Dr. Will. Hopkins, born 1647, Prebendary 1675, died 1700 (Green, 103).

The Quire antiently extended westwards to y^e^ 2^d^: Pillar below the Bellfrey.

Wulstan de Braunston, Prior, built the Great Hall, commonly called Gesten Hall, 1320.

The Refectory and Cloyster built 1372 /. John Lyndsey, Sacrist, the Tower or Belfry 1374 /.

The Stone Vault over the Quire under y^e^ Belfry and over S^t^ Thomas's Altar, 1376 /.

The Vault over y^e^ nave of y^e^ church, y^e^ Library, Treasury, and Dormitory, W^m^ Cellerer, 1377.

The Water-gate, W^m^ Poer, Cellerer, 1378. / The Infirmary and Stalls in y^e^ Quire, W^m^ Cellerer, 1379 /. The West Window, 1380 /. John Lyndsey, Sacrist, the north Porch of the church, 1386.

Most of these great buildings were in the time of Henry Wakefield, Bp: of Worc: and Treasurer of England, who was made Bp: an: 1375, and dy'd an: 1394. Probably the Prior and Convent were but surveyors under the Bp.

The Base of the leaden Steeple was octangular, the walls 10 foot thick and 60 foot high. The spire of lead was 150 high, and levell with the top of S^t^ Andrews Steeple w^ch^ is 77 yards high.

Of the Leaden Spire or Old Belfrey.

Before the building of the Tower it was the Belfrey, The figure of the Base 8 sided. The height of y^e^ Stone work was 60 foot, viz: equall to the battlement of the church. The Diameter of the Base is 61 foot, and y^e^ thickest of y^e^ wall 10 foot.

On the Base stood a leaden Spire 50 yards high, and the Cock levell to that of S^t^ Andrews, but S^t^ Andrews standing on the lower ground, is somewhat higher. The leaden spire was in height from y^e^ ground 70 yards, and S^t^ Andrews 77.

The Timber was not sawed, all of Irish Oake, wrought with the Axe only. The Bells but 5, but probably equall to those of York, of w^ch^ y^e^ biggest was 6600 weight.[5]

The Dormitory was 120 foot long and 60 wide, supported by 5 large Stone Pillars. It was on the west side y^e^ Cloyster, at first an open Roome, but after y^e^ Monks had y^r^ Cells divided.

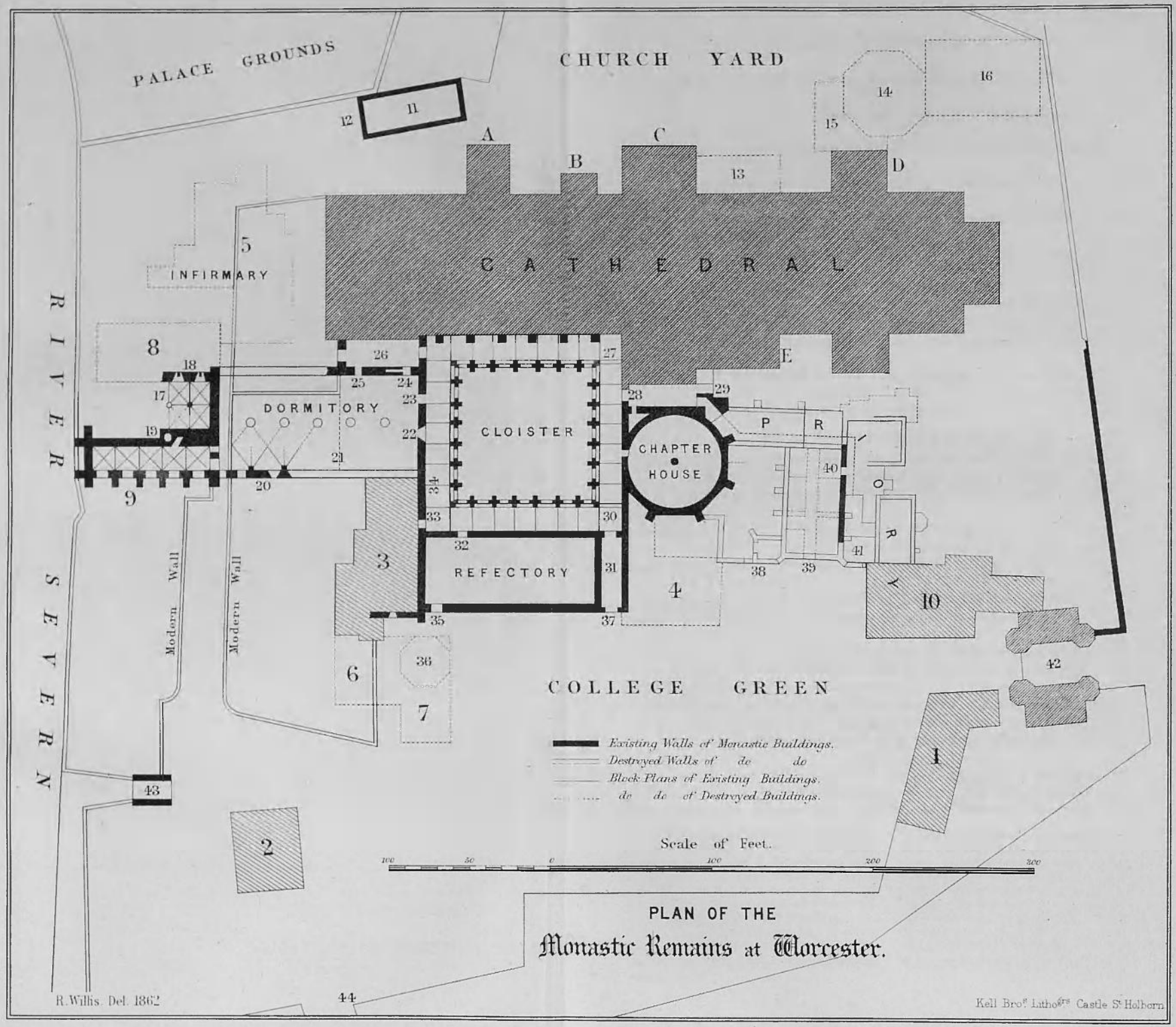
The Lavatory in the Cloyster was supply'd from a Spring in Hinwick, and the water conveyed in Pipes over y^e^ Bridge, in consideration whereof the Prior and Convent consented to y^r^ bearing y^r^ Mace in y^e^ Sanctuary and S^t^ John's.

M^r^. Tomkins says, there were a Prior and 100 monks; sed quære.

Prior, Subprior, Sacrist, Tumbarius, M^r^ Capellæ, Hospitalarius, Cellerarius, Camerarius, Pittensarius, Coquinarius, Infirmarius, Eleemosynarius.

[5] At the meeting of the Worcester Diocesan Society in 1857 (vide Ecclesiologist, p. 58), Sir T. Winnington read a paper on the "Clochium," or leaden steeple, quoting a manuscript in his possession, "Observations on Worcestershire, by Mr. Nathaniel Tomkins," evidently the source whence Dr. Hopkins derived his above description of the Clochium. (I supply the following additional extracts).

"It was placed so near the church that there was only space between for processions. Leaden steeple was taken and sold 1647, for 617*l.* 4*s.* 2*d.*, the principal part of which was given to repair several churches in the county damaged in the Civil War. In a pen and ink drawing of the cathedral, executed c. 1670, in the Dineley MSS., the basement of this tower is represented in only one storey."



PLAN OF THE
Monastic Remains at Worcester.

R. Willis. Del. 1862

Kell Bros. Lithogrs Castle St. Holborn

The Dean hath the Priors House, First Prebendary, y^e^ Sacrists, 2^d^: the Tumbary, 3: the Sub priors, 4^th^: Hospitalarius, 5^th^: Infirmarius, 6^th^: Pittensarius, & p^t^ of y^e^ Cellerer, 7^th^: Coquinarius, 8^th^ — 9^th^ M^r^ Capellæ, 10^th^: Eleemosynary and part of the Priors.

The Spitall for lodging Pilgrims was 50 foot long × 20 wide."

. . . . . .[6]

It is uncertain when Bp: Giffard did adorn y^e^ Quire with Marble Pillars. If near y^e^ beginning, it might be 100 years before Bp: Wakefield, who was consecrated an: 1375: If in y^e^ end of his life it might be scarce 80 years. Bp. Giffard dy'd Jan. 26, 130½, and was consecrated an: 1268, about September:/ The fire an: 1113 destroyd only the roofe of y^e^ Church, so that the low Saxon Monuments might escape.

. . . . . .[6]

Pitensarius was not Penitentiary, but pitanciarum sive ferculorum lautiorum Dispensator in Anniversariis Benefactorum.

Cellerarius non habuit curam Camerarum, sed Camerarius.[6]

DESCRIPTION OF THE PLAN OF THE MONASTIC BUILDINGS.

In this plan the thick black lines indicate walls of the monastic buildings which still stand, either to their full height or partially. The parallel lines of the same width show the sites of such walls as can be determined by foundations or other evidence. Modern walls are shown, where necessary, by double lines very near together. The plan of the cathedral is given already in detail in Fig. 1, it is, therefore, here indicated in outline merely. A is the north porch; B, Jesus chapel; C, north transept; D, small north transept; E, east end of the old vestries.

The sites of all the old prebendal houses as they stood, up to the year 1841, are indicated by large numerals corresponding to the respective numbers of the old prebends, and therefore to Dr. Hopkins' memorandum, according to which the site of 2 was originally occupied by the *Tumbarius;* that of 3 by the *Subprior;* of 4 by the *Hospitalarius;* of 5 by the *Infirmarius;* of 6 by the *Pittensarius and Cellerer;* of 7 by the *Coquinarius;* of 8 and 9 by the *Magister Capellæ*; and finally that of 10 by the *Eleemosynarius,* and by part of the Prior's lodging. Of these houses, Nos. 1, 2, 3, and 10, which are bounded by a continuous line and shaded, are retained, and Nos. 4, 5, 6, 7, and 8, bounded by a dotted outline, have been pulled down since 1841. The dotted outline is also employed for monastic buildings of which the sites only are known.

11. The charnel vault below the surface of the ground, p. 259.
12. The site of the hospitium of its priests, p. 259.
13. The site of the sacrist's lodging and subsequently of the first stall, pp. 123-4.
14. Site of the leaden steeple or clocherium, p. 259.
15. Covered passage which connected it to the church, shown in Hollar's engraving.
16. Site of St. Michael's church, pulled down in 1842.
17, 18, 19. Vaults of the buildings Nos. 8 and 9, p. 301.

[6] In these three places I omit matter irrelevant to my subject.

20. Ruined fragment of the south wall of the dormitory sub-vaults, probably belonging to the common house, p. 269.
21. This dotted line shows the position of steps now concealed, indicating the change of level in the original pavement of the sub-vaults, due to the gradual slope of the ground from the cloister wall to the edge of the bank above the river.
22. Large handsome doorway from the cloister to the sub-vaults, p. 271.
23. Small door ditto, ditto.
24, 25. Doorways connecting the sub-vaults with 26, the Norman passage, which led from the cloister to the infirmary, the former also opening to the Dormitory staircase in the thickness of the wall, p. 271.
27. This double line shows the position of a traceried rib, which crosses the cloister vault (vide p. 262). A similar one is placed at 30.
28, 29. Norman-vaulted passage, occupying the same position as the "Parler" at Durham and the Slype at Winchester. It serves as a communication from the cloister to the monks' cemetery on the south and east sides of the cathedral, and to the priory, p. 264.
30. The traceried rib corresponding to 27.
31. Norman-vaulted passage, which gave entrance to the cloister from the outer court of the monastery, now the "College-green," by the ornamented Norman doorway 37, p. 264.
32. Cloister door of the refectory.
33. Cloister door to the sub-prior's apartment and other offices.
34. The lavatory.
35. Door from the refectory leading to the kitchen.
36. Site of the kitchen.
37. Norman doorway of the cloister from the outer court.
38. Site of the porch of the Guesten-hall.
39. West wall of the Guesten-hall.
39, 40. The site of the Guesten-hall. Of this building the portion of wall shaded black, and containing three windows, and the door 40, which led from the high table to the priory, is retained as a permanent ruin.
41. Entrance from the outer court to the priory. The separate letters of the word PRIORY serve also to indicate in order the different portions of which it consisted.

P, a stone building of the fifteenth century.
R, a timber-framed building.
I, a stone chamber with windows in the style of the Guesten-hall.
O, a connecting piece of building.
R, an ancient hall of timber of the fourteenth century.
Y, a part of the priory included in the site of No. 10, whose prebendary is said to have occupied a part of the prior's lodging.

42. The entrance gateway of the college, termed Edgar's tower.
43. The ferry gate-house. Of this, the only ancient part is the actual gateway, with its vault, of the fifteenth century, plain, and now denuded of its ribs.
44. This site still bears the name of the Ovens, apparently preserving to us the iste of the ancient bakehouse of the monastery.