ENGLISH ARCHITECTURE OF THE NORMAN PERIOD.

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AS a fitting commencement to a consideration of the subject of Norman Architecture, I may perhaps be allowed to glance briefly at the circumstances which preceded the introduction and settlement of Norman manners, arts, and laws into this country. The history of the Continent of Europe towards the close of the ninth century is nothing but a series of calamities, disorders, and revolutions, and at this time the coasts of France were ravaged by bands of pirates from the north, known then as Northmen or Normans. At the beginning of the 10th century, when Charles the Simple was the acknowledged King of France, the kingdom, which had once been well regulated, became a multitude of separate principalities altogether independent of the crown, or dependent only in name, and taking advantage of this state of weakness and anarchy, Rollo, a Norwegian chieftain, who appears to have been a most illustrious leader, joined in the invasions to which France was then subject from the ferocious tribes of the north, and conducted his assaults with so much bravery and skill that he soon seized the town of Rouen, and having fortified it, made it his head quarters. Charles the Simple had to sue for peace, which he obtained by ceding a considerable tract of country to the successful invader, and to this territory was afterwards given the name of Normandy.

Rollo soon embraced the Christian religion and took the name of Robert, and his power and reputation were so considerable that Charles bestowed on him his daughter in marriage. Rollo proved eminently worthy of his success, for Normandy soon became conspicuous for the good order as well as the energy and persevering spirit of its inhabitants. He augmented the population by encouraging foreigners to settle in Normandy, and enacted wise laws for their security and for the encouragement of industry among every class of his subjects. He likewise rebuilt the cities and the churches which had been reduced almost to a state of ruin by the previous ravages of his followers. Influenced by so wise a genius, the inhabitants of Normandy gradually quitted their barbarous propensities and manners, and in succeeding generations they emulated the polish of their neighbours, and appear to have taken pride in being accounted Frenchmen while they cultivated an affinity to that people in language and customs. Rollo died in the year 931, after having

earned for himself a name in history "as the ablest prince and the wisest legislator of the age in which he lived." After several intermediate reigns, William, destined to become "William the Conqueror," ascended the ducal throne.

On the death of the Anglo-Saxon King Edward the Confessor without issue, disputes arose as to the succession to the English crown, and as is well known, William of Normandy made good his claim by the power of battle, and on Christmas Day of 1066, he was crowned at Westminster.

I must not dwell upon the importance of the events arising out of the triumphant accession of William to the Crown of England: every section in the history of this country, whether civil, military, or religious, whether appertaining to arts, customs, or manners is affected by this great era, and in the majority of instances assuredly in a beneficial way. Looked at from a general and national point of view, the Conquest introduced into this country a spirit of commerce by facilitating the approach to continental markets, to the upper classes it was the means of imparting a degree of politeness, before unknown, or disdained, and amongst every class it renovated habits of piety; and the outcome of this was the erection of numerous cathedrals, churches, and religious houses, conspicuous vestiges of which remain to this day and bid fair to stand long after many of the ecclesiastical buildings of the present century have given way to the ruthless hand of Time.

The effects of the Conquest on such circumstances as are of leading interest to the members of a Society such as this are numerous and truly important, and chief amongst these must be named the great accession and rapid development of a truly National Architecture.

The ease with which William had triumphed over Harold and gained possession of the country, was probably due in a great measure to the inadequacy of fortifications, although many fortified buildings had been raised by Alfred and his successors. To a warlike and politic king such as William, it would be obvious that the inadequacy of the means of defence had assisted his conquest and would not be unlikely to afford aid to his expulsion, and to provide against such a contingency the erection of additional castellated structures became one of the first cares of the king's new government. He not only built strong castles in the principal towns within the royal demesnes, but stimulated the nobles to construct similar fortresses on their estates, which they held by grant from the king, and so much in fact was the practice made a necessity, that so soon as one of the nobility had the grant of an estate from the crown, a castle was built upon it as a place of residence and defence, required as much perhaps to keep a discontented native population in subjection as for defence against foreign invasion.

Forty-nine castles are enumerated in the Domesday Survey, which was made about twenty years after the Conquest, and of these only one—that of Arundel—was in existence during the time of Edward

the Confessor; but besides these there were doubtless many begun during the Conqueror's reign which were not completed until a long time after.

These early Norman castles are all built in the same type—a square massive keep, with the ground floor vaulted for stores or stables, or prisons according to circumstances, the entrance on the first floor, with sometimes an external flight of stone steps, in other cases a drawbridge to an outwork.

These keeps do not appear to have been originally enclosed with stone walls: the custom of raising fortifications of a trench and vallum surmounted by wooden palisades was not yet abandoned, in fact it was used occasionally long afterwards, and these keeps seem to have been usually surrounded by a double entrenchment, the inner one enclosing the inner bailey, or principal court, in which the keep was situated, the outer one enclosing the outer bailey, or yard; and this was frequently of considerable extent, in case of need the cattle being driven into it for protection. This early custom of enclosing two courts or baileys round a castle was continued throughout the Middle Ages, and in later times farm buildings were erected in the outer bailey.

Although Military Architecture was receiving so much attention during the Conqueror's reign, yet the buildings erected for the services of the Church were very numerous, and to such an extent was the progress of *Ecclesiastical* Architecture encouraged that the rebuilding or improvement of nearly the whole of the cathedrals and most important abbeys of this country was commenced during that period, besides other works of less importance: it would be a mistake, however, to suppose that William actually built the whole of them: they were mostly erected by the monks, with the assistance of funds which he gave them and by the aid of grants of stone, timber, etc., and other privileges. I find, for instance, that when Abbot Baldwin rebuilt the Abbey of Bury St. Edmunds, King William the Conqueror issued his precept, commanding that the Abbot and Convent of St. Edmund should be permitted to take sufficient stone for the erection of their church from the quarries of Barnock in Northamptonshire, granting at the same time an exemption from the usual tolls chargeable upon its carriage from that place to Bury. But in addition to the aid which was given in this and many other ways, William either from feelings of real piety or in order to make his peace with the Pope, founded several magnificent abbeys which he richly endowed; the two most celebrated are those at Caen in Normandy — St. Stephen's and the Church of the Holy Trinity. The first of these was founded in 1066 and dedicated in 1077, which shews that in eleven years so much of the church was completed as was required for the due celebration of Divine service. In the Middle Ages it was the usual custom to consecrate a church as soon as the choir was completed, leaving the nave and other parts to be erected afterwards, but the foundations for the whole were generally laid at once, and this appears to have been done at Caen.

With regard to Military Architecture, the same spirit of political intention which actuated the Conqueror appears to have been imitated by his son and other successors through the Norman line, and William Rufus is even said to have exceeded his father in a fondness for erecting castles of defence: the disputes as to the succession to the crown and other troubles also became a reason for the increase of defensible retreats, so that before the end of King Stephen's troubled reign in 1154, no less than eleven hundred and fifteen castles had been erected, but many of them were doubtless built in haste and with little evidence of refined skill.

It is not supposed that the Normans brought over with them a huge staff of masons, although it is most probable that many of their soldiers and followers were skilled workmen; but there is no doubt that their buildings were erected mainly by Saxon hands. The style which the Normans introduced was not so much a new style as a bolder and more perfect manner of treating one already in use: the main principles were doubtless introduced by Edward the Confessor, or possibly by Canute, and by them applied to the construction of the numerous churches erected during their reigns, and this is shewn by the similarity which is frequently seen between works that are of known Saxon date and those of the earliest Norman period.

William of Malmesbury, who wrote in the 12th century, and finishes his historical work with the reign of Stephen, describes Edward the Confessor as having introduced, in the instance of the Abbey Church at Westminster, "a new style of building," and Matthew Paris, who died in 1259, makes a similar statement, and *both* authorities add that the style was adopted by many subsequent builders, and William of Malmesbury mentions it as prevailing in his own time.

In the pride of their superiority over the Saxons as to notions of grandeur and a better cultivation of the fine arts, the Normans doubtless demolished many of the Saxon buildings in order to raise in their stead other buildings of more magnificent dimensions, and influenced by this pride, in conjunction with their ardent zeal of piety, they affixed the marks of their massy, vast architecture to nearly every principal religious foundation throughout the kingdom, and to this day work erected by the Normans is found in at least seventeen of the twenty-two English cathedrals, viz.: Durham, Carlisle, Chester, Peterborough, Norwich, Rochester, Chichester, Oxford, Worcester, Wells, and Hereford. These retain considerable portions of the original Norman work unaltered: Winchester has a central tower and transepts, Gloucester has the whole of the original nave, Ely the nave and transepts, Exeter two large towers which now form transepts to the present building; at Lincoln there are parts of the west front and the lower parts of the tower, and at Canterbury the greater part of the choir and two towers, one called St. Gregory's tower and the other St. Anselm's. There is, however, not one of the Norman cathedrals remaining entire as originally built, but as the Saxon buildings had to give way to the grander ideas of the Norman

builders, so in their turn the Norman buildings became much altered by the innovations of succeeding ages, and, although we do not now see the general effect for which the true artist of the 12th century laboured, yet our minds are impressed with reverence and awe when viewing their works, even in their mutilated form. Apart from the cathedrals, many large and important churches and abbeys could be named, and amongst the latter that of our own town, which, as you are of course aware, was founded by Henry I. in 1120, but most of these have been allowed to go to ruin or destroyed for the sake of the old materials.

The term "Norman," as applied to architecture, is presumed to be applicable to all buildings erected in England during the reigns of William I. and II., Henry I., Stephen, and Henry II., or from the years 1066 to 1189.

The architects by whom the Norman works were planned were men of great science and skill, and the names of several have obtained a place in history, and it will be well to remember, to the honour of a race of ecclesiastics often named with overwhelming obloquy by those who are opposed to that form of worship in the Christian Church under which architecture flourished in the Middle Ages, that the great architects of the Anglo-Norman period are to be found amongst the list of dignified clergy. First of these should be named Gundulph Bishop of Rochester, the best of the Norman architects, a monk of the Abbey of Bec, in Normandy: he was employed and consulted by William in the advancement of his favourite plans for the construction of buildings of defence, and the majestic Keep of Rochester Castle stands to this day a fine and venerable instance of his skill, as the whole of the improvements in Castellated Architecture known to have been introduced by him are here assembled in one impressive display.

In a paper contributed to the sixth volume of the Archæologia, I find this mention of Gundulph and his improvements:—"This extraordinary genius began to reason with more acuteness upon the subject of Castellated Architecture than any architect had done before; and he determined to unite together all the excellences of former structures and to add many new inventions in order to increase not only the security but also the magnificence of these piles. His mode of building was immediately greatly admired, and soon came into fashion, although the prejudice in favour of the old plans appears to have long continued amongst the Normans. The Castle of Rochester was the latest effort of this great architect, and I have thought that some short notice of its leading characteristics may perhaps be of interest. Beginning with the ground storey, I may say that to this there was no access from without, and the apartments were probably used for storage, the outer walls being 12 feet in thickness and the inner division walls five feet thick, all built in the most solid manner possible, so that no ram known at that time was likely to make an impression on them. The height of the large tower was about 112 feet, and on plan is 70 feet square at the base. Below

the ground storey is a dungeon about 20 feet by 12 feet vaulted in stone, with no light and apparently very little air, into which prisoners were confined whose wealth was coveted by the lord of the castle. Holes appear now in the walls where timbers were inserted that carried the floors of the different storeys. The first above the ground storey was the floor occupied by the garrison, and small chambers that are now to be found formed in the thickness of the walls, are supposed to have been the officers' sleeping places. Attached to the large main tower is a smaller square tower, on the first storey of which was the entrance hall to the castle, the main door to which is very beautifully ornamented with zig-zag mouldings. The entrance was raised some 14 feet above the ground, and could only be approached by an inclined plane and the crossing of a drawbridge. Between the hall and the main building was another door with a huge portcullis. The floor above this covered the whole area of the castle, and formed the Hall of State, a room about 40 feet square and 32 feet high, divided across the middle by a screen of beautifully proportioned columns and arches richly ornamented with the zig-zag moulding. In the thickness of the walls there are two ranges of passages one above the other, and in these are numerous small windows, with embrasures in which archers could stand in case of siege. The upper storey was considerably subdivided, and contained the apartments for the ladies and their attendants, and probably here, too, were the sick and wounded tended during the siege. Above this was the roof, which covered the building in two spans, and round this were the battlements. At each angle of the keep is a tower about 12 feet square. There is a *well* concealed in the thickness of the wall which ascends through all the storeys to the top of the tower and has a communication with every floor, and this seems to have been considered indispensable, as scarcely any Norman castle is found without one. There are fire-places to the rooms, which have semi-circular-headed chimney-pieces. The smoke was not conveyed off through flues to the top of the tower, but through holes left for that purpose in the outer wall just above each fire-place.

But in addition to buildings for purposes of defence, Gundulph was also engaged on works more consonant to his sacred functions, for he founded and endowed a magnificent Benedictine nunnery at West Malling in Kent, original portions of which are still in existence. He rebuilt the cathedral of his diocese, which still retains the principal Norman features of the nave and west wall unaltered, as seen upon one of the photographs which I now put before you: the western doorway which remains intact, is a fair specimen of the rich mode of decoration so prevalent amongst the best of Norman works; and you will notice the grotesque carvings upon the outer faces of the arch, which is a common mode of decoration, upon the most elaborate doorways of the Norman period. This at Rochester, however, must be regarded rather as a Continental than as an English design, for we entirely miss the billet and the zig-zag mouldings which were both such favourite modes of decoration at this date. The

chapel in the White Tower of London was also built by Gundulph, and various other works.

Another early patron of art was Gundulph's friend Lanfranc, who during the early part of the building of the well-known Abbey at Caen was Abbot of St. Stephen's, and was appointed Archbishop of Canterbury in 1070, when the old Saxon cathedral was in ruins. He quickly rebuilt the cathedral from the very foundations, exactly on the same plan and of the same dimensions as the Church of St. Stephen at Caen, with one great difference, that the roofs were of wood instead of stone.

The choir of Lanfranc's church, however, was pulled down and rebuilt on a larger scale by Archbishop Conrad, and on this occasion the side aisles were vaulted, but the central roof was still of wood, an arrangement which existed up till nearly the close of the Norman period. This work of Conrad's was destroyed by fire in 1174, and the rebuilding, or perhaps rather the repair, was commenced in the following year by William of Sens, an architect of great talent. The crypt at Canterbury still remains as left by Conrad, so also do the lower parts of the walls of the choir; but above that, the whole choir, as we now see it, was the work of the 12th century, and it may be noticed that the influence of the pointed style, which was so soon to take the place of the round arches, is strongly marked; there is not a more beautiful specimen of late Norman work to be found, and it is asserted by some that it was here that the introduction of the pointed arch was first fairly tried. Fergusson, in his "Handbook of Architecture," says:—"My own impression is that it was at the rebuilding of the Cathedral of Canterbury, after the fire of 1174, that the pointed style was first fairly tried. The architect who superintended that work for the first five years was William of Sens; and the details and all the arrangements are so essentially French, and so different from anything else of the same age in England, that his influence on the style of the building can hardly be doubted. This is probably the first instance of the succeeding style being carried out in anything like completeness, not only in the pier arches and openings, but in the vaults also, which is far more characteristic."

Bishop Walkelyn, another master of the art of building, was appointed to the see of Winchester in 1079, and immediately commenced the rebuilding of the cathedral and the adjoining monastery from the ground, and the present crypt and transepts are portions of his building. They exhibit work of very early Norman character closely resembling the original parts of St. Stephen's at Caen, and not much in advance of the rude work at St. Albans. Walkelyn appears to have been a shrewd man of business, for it is reported of him that, having found himself short of timber, he applied to his cousin the Conqueror for a grant, and was permitted to take from the forest of Hempage as much as he could fell and carry away in three days: he made a most diligent use of this permission, for within the prescribed time he cut down every individual tree of which the forest

consisted, and carted them to Winchester. The king passing that way a few days afterwards, was struck with astonishment to find that the whole wood had vanished bodily, and being informed of the advantage which the bishop had taken of the permission granted to him, was much enraged. Walkelyn, however, begged to be forgiven, and the king probably knowing his merits and sincerity, granted the request, saying, however, "Most assuredly, Walkelyn, I was too liberal in my grant, and you too exacting in the use of it."

The cathedral works were carried on with very great spirit for eight years, when the building was sufficiently advanced to admit of service being held within its walls; but it is sad to know that when the church was completed and magnificently appointed, William Rufus seized all the valuables, which broke the heart of Walkelyn, who died a few days afterwards, and was buried in the nave of the church which he had raised with so much devotion and loving enthusiasm. Walkelyn's plan was on the same magnificent scale as the Norman cathedrals of the 12th century, but his ideas appear to have been rather in advance of the workman's skill, for his great central tower fell down in 1107; but it was immediately rebuilt, as its present appearance shews. This circumstance is sufficient to explain the immense size of the piers supporting the present tower, which consist of enormous masses of masonry. In the new work the masonry is fine jointed, and this serves to distinguish it from the old.

Although it is a digression, it may be interesting here to note that the early Norman architects do not appear to have been particularly fortunate about their towers, for, although the masonry which has come down to us is of the most solid description, there are many instances on record to shew that some of the towers of the 11th and 12th century failed from some cause, and that, probably, through insecure foundations.

As we have already seen, the tower of Winchester Cathedral, erected between 1079 and 1093, fell in 1107. The popular opinion held that the tower fell because King Rufus had been buried underneath it.

There is a curious connection between Winchester and Ely: the latter was built by Simeon, Bishop Walkelyn's brother, and singularly enough the central tower of Ely fell in 1322. The north-west tower of Gloucester Cathedral, built between 1089 and 1100, fell in 1160 without warning, when the bishop was about to deliver his solemn benediction to the congregation who had all crowded for that purpose into the choir, and thus it was so ordained that no loss of life or limb occurred.

The tower of Worcester Cathedral, built in 1084, fell in 1175.

The Norman central tower of Evesham fell in 1213.

The two Norman towers of the front of Dunstable Priory Church fell in 1221.

Two small towers of Worcester in 1222.

The Norman central tower of Selby Church fell in 1690.

The central tower of Lincoln Cathedral fell in 1240; and in our

own day the tower of Chichester Cathedral has fallen, the lower stages of which were Norman work.

Although we are accustomed to consider Norman work the very perfection of strength in building, there is no doubt that where the walls have been faced with freestone sufficient care had not in many cases been taken to bond the outer casing with the rubble walling. This, I believe, was especially noticeable in a Norman structure at Bury St. Edmunds, where the ashlar had been stripped off and the impression of the stones left in the mortar behind. In connection with this subject, I may mention that so great an authority as Mr. J. H. Parker considers that "the rebuilding of Lanfranc's choir at Canterbury within 50 years of the date of its original erection, a proof of the inferiority of the work of that date"; and in further confirmation of this, he mentions that "of the 32 Benedictine monasteries founded in the 11th century, there are only three or four of which we have any buildings remaining that belong to this period."

Getting back again to the names of the great builders and their works, I should like, if time will permit, to name a few in order to shew the extent to which building operations were carried during the century in which Norman architecture flourished.

Abbot Baldwin, assisted by the Sacrists Thurstan and Tolin, rebuilt the Abbey of Bury St. Edmunds between the years 1070 and 1095, and the magnificence of the buildings may be judged of by the size of the church, which measured 505 feet in length, and 212 feet across the transepts.

Abbot Paul entirely rebuilt the Abbey of St. Albans, materials for the purpose having been collected by the two preceding (Saxon) abbots. Paul died in 1093, but the work was continued by his successor and consecrated in 1115.

Abbot Simeon, brother to Walkelyn of Winchester, commenced the building of Ely Cathedral in 1083, and the church was dedicated in 1106: part of the nave and transepts belong to this work, though probably built after the dedication of the choir. The side aisles are vaulted and the nave roof is of timber, an arrangement which was always adopted in the cathedrals of this date.

Bishop William de Cavilepho commenced the rebuilding of the Cathedral at Durham in 1093, but his death happened within two years of this date, and the pious work was continued by his successor, Ralph Flambard, who carried the building nearly to the roof. The plan of the Norman church was that of a long cross with two turrets at the west end, and between them a large and richly ornamented arched door opening. The east end doubtless terminated with a semi-circular apse as was usual in the Norman period. The side aisles both of nave and choir, were vaulted with semi-circular groined arches, but the nave and choir had open timber roofs. In this instance, however, a vaulted roof for the nave was certainly intended from the beginning, the piers being alternately round and shafted; and though the nave is only 32 feet wide, the builders do not appear to have had the courage to carry out what appears to have been the

original intention. This, I believe, is the only instance amongst all the large buildings in England of the early Norman period where the arcades give evidence of an intention to construct a vaulted roof above the nave.

Chichester Cathedral was commenced immediately after the removal of the see from Selsea, in 1082, by Stigand, the first Norman bishop, who seems to have found some difficulty in obtaining funds, and was unable to do more than put in portions of the foundations previous to his death, and the building was continued by Bishop Radulfus: it suffered from a fire in 1114, and from a second fire in 1186. The plan of the original Norman church was cruciform; the transepts were apteral, that is, had no aisles; the nave, and the presbytery or eastern limb of the cross, had each a north and south side aisle. There were two western towers, but these do not appear to have been completed in the Norman period. The northern is at present destroyed to the ground: the southern is only Norman in its two lower storeys, sufficient having been built to make the interior of the church complete, and the remainder evidently left for future completion. The four great arches at the crossing of nave and transepts are of enriched Norman work, but the central tower was not carried above the roof in the Norman period. The eastern wall of each transept is pierced by a large Norman arch, which doubtless gave access to an apsidal chapel, which was the usual appendage to the east wall of a Norman transept. Very much of the Norman work remains to the present day in every part of the building, and the arcade walls of the nave and choir would be perfect but for the introduction of vaulting shafts and other alterations made in the early part of the 13th century when the groined ceiling was added.

No cathedral in England retains its original Norman plan so nearly undisturbed as Norwich, and for this reason I have thought it worth while to prepare a rough sketch plan to exhibit the arrangement.

The foundation stone was laid in 1096, by Bishop Herbert, who had founded the see two years before, and the works were pushed forward with so much vigour, that in 1101 a portion of the building was in the possession of the monks and used for public worship. How much was absolutely completed by Bishop Herbert is not clearly defined, though it is stated that the choir with its aisles, also the transept and tower, were erected by him, and his successor added the nave, all being completed within the early part of the Norman period. Seeing that the original plan of the cathedral has not been materially interfered with by any subsequent changes, an account of the dimensions of the building may not be uninteresting. The length from east to west is 411 feet, width across transept 191 feet, and across nave and aisles, 72 feet.

To attempt to give even but a brief description of the whole of the important buildings, I should be compelled to occupy far too much of your time; but having now enumerated a few of the prin-

cipal works of this great age, we can form some idea of the magnificent scale upon which building operations were conducted in this country during the 11th and 12th centuries, and the extent of that piety and religious zeal which (notwithstanding all that we hear about the "dark" ages) must have prompted our early forefathers to expend such labour and wealth upon the adornment of God's house. William of Malmesbury (and other ancient historians can be cited to the same effect) states that the custom of expressing religious fervour by founding a church or monastic house prevailed at this age in so eminent a degree, that a rich man would have imagined that he had lived in vain if he had not left behind him some illustrious monument of his piety and munificence.

I now propose to give some few particulars of the principal characteristics which serve to distinguish the Norman style of architecture.

The appearance of Norman buildings generally is bold and massive, but, unfortunately, we have no opportunity of viewing the effect of buildings of an early date, as no large work remains without having undergone considerable change in subsequent times; but I have here a photograph of a portion of Buildwas Abbey which, though in ruins and roofless, gives one a fair idea of the interior of an early Norman building; but perhaps the nave of Rochester Cathedral (looking westwards), is as perfect as any, though the effect has been ruined by the insertion of a large perpendicular window in the west wall. The interior arrangement of large Norman churches is considerably varied as to detail, though authorities seem to agree as to a certain similarity in the plans, which always assumed the form of a large cross; the east end was usually terminated by an apsidal choir, which, in large buildings as at Norwich Cathedral, had aisles, and a processional passage, but in large churches—not so important as cathedrals—the choir was apteral, that is, without aisles, and it is not uncommon to trace a semi-circular chapel or apse attached to the east side of each of the transepts closely adjoining the north and south walls of the choir. The transepts were often of considerable projection. The nave was usually lofty, and in the case of large buildings was divided vertically into three storeys, as at Norwich, a photograph of which is here shewn; but in churches of a second class, the blind, or middle storey was omitted. The nave was always covered with a wooden roof, but its side aisles were usually vaulted. In the cathedrals and larger conventual churches the north and south aisles of the nave are not unfrequently terminated at the west ends by massive towers, and between these a bold arched entrance, considerably ornamented.

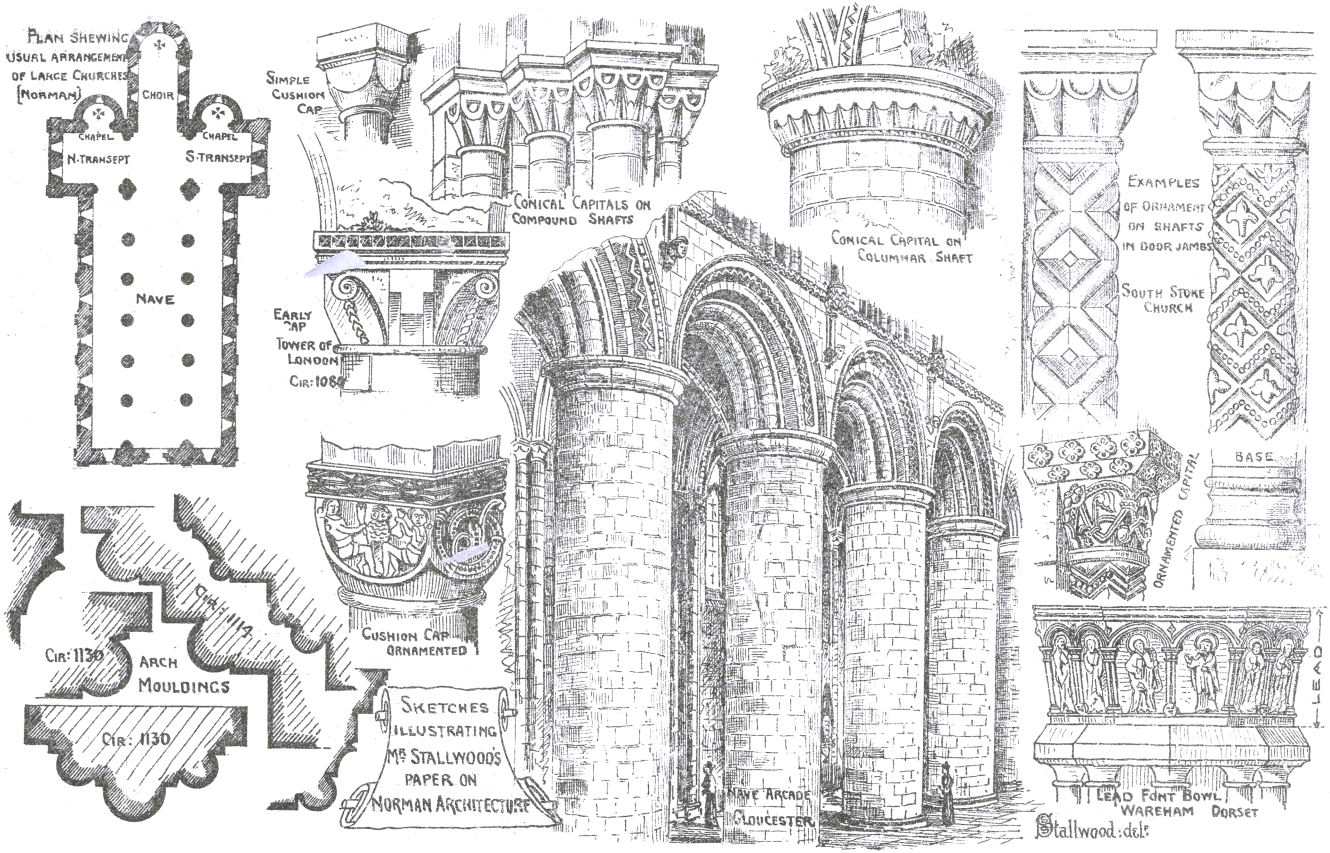
The walling of the Norman buildings is usually of extraordinary thickness with but few buttresses, and these, especially in the earlier part of the style, are generally of considerable breadth, and very small projection, and as they add so little to the strength of the wall, it may be supposed that they were introduced as much for ornament as for support.

The buttresses at Fountains Abbey (shewn upon one of the drawings) project only to the extent of the base, and continue up the

whole height of the wall to the parapet, which is projected beyond the face to receive the buttresses, so that in fact the wall may be said to recede rather than the buttresses project. There are instances, however, where buttresses project more than this, though in no case is the projection very much. In rich buildings ornaments are introduced in the buttresses which take the form of small shafts at the angles, and small series of arches forming arcades are sometimes used to relieve the plain face. I may note here that these series of small arcades were frequently used to ornament the upper storeys of many Norman towers, and used too in very great profusion, as at St. Clement's, Sandwich, and Iffley Churches, and in the transept towers of Exeter Cathedral and Wimborne Minster central tower. I name these as instances because photographs or drawings of them are before you.

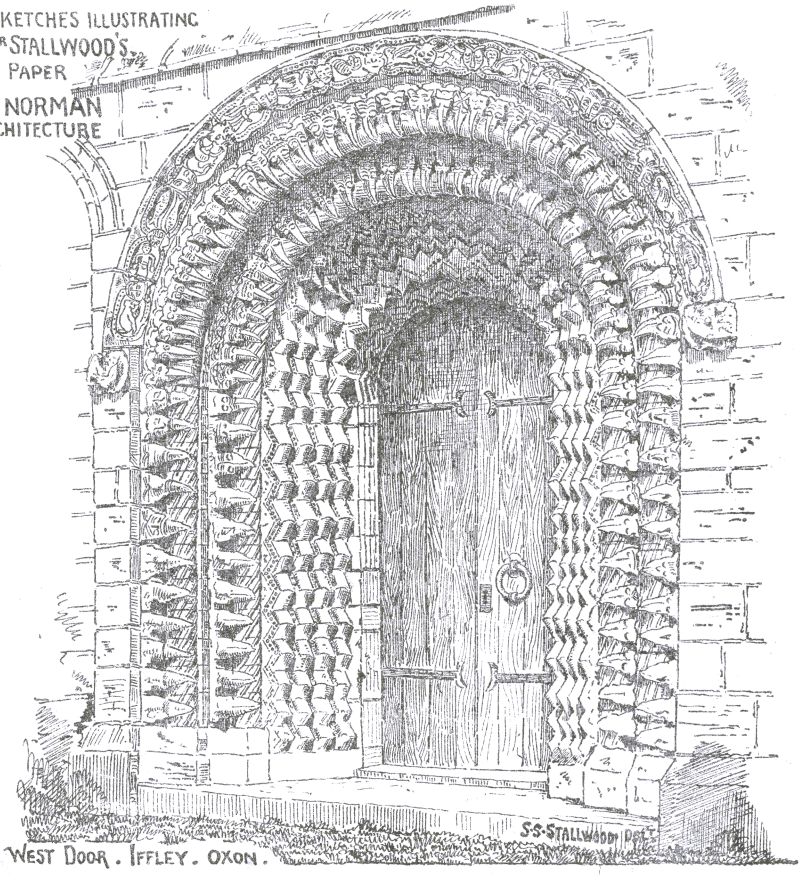
Perhaps there is no part of Norman work which is so characteristic of the style as the arches, and it is generally known that these are semi-circular, though there are many instances where the pointed arch is found in work which is unquestionably Norman, and that long before the period of the Transition. The arches of early date are usually very plain, consisting of recesses of two or more orders, with no attempt at ornamentation but simply a square edge, and of this rude construction I produce photographs of an arch at Gloucester and of the arcades at Buildwas Abbey as examples. As the style advanced the square edge was cut off and formed a chamfer, or the outer members were very simply moulded with a plain roll and hollows, and this form of ornamentation remained in use and was carried into the succeeding style, but as the Norman style advanced its use was not confined to the outer member, but was introduced at every angle, and soon the heavy rude arches of very early Norman work became developed into the simple but grand moulded work of which the transepts at Peterborough afford such beautiful examples. Mixed with the plain moulded members, the zig-zags and other modes of ornamentation were introduced with an effect which does not admit of comparison, and of this I can name no better example than the arches of the beautiful Galilee at Durham. Of course this is late work erected towards the end of the reign of Henry II., but the arches, both in form and ornamentation, are *essentially Norman*, and do not bear the evidence of the coming change like the beautiful late Norman work at Canterbury does, which, as you know, was built about the same time.

The arch was much used amongst the Normans as a means of decorating the surfaces of walls. Rows of small shallow niches or recesses were used, as we have seen, to decorate the upper stages of the Norman towers, and these were headed by arches often richly ornamented. The same thing occurs on the inside of the western wall at Rochester Cathedral, where two tiers remain complete to this day, and although a large perpendicular window has been inserted, sufficient Norman work remains at the sides to shew that the whole of the wall was probably decorated in this way.

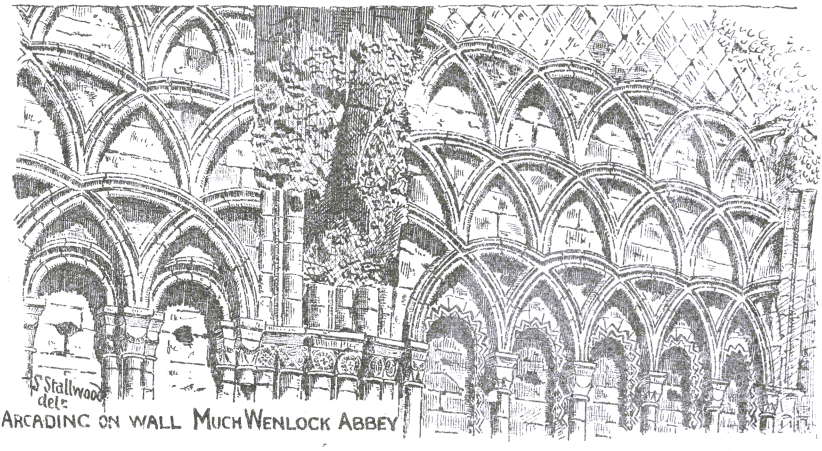


Whiteman & Bass, *Photo-Litho*, London.

SKETCHES ILLUSTRATING
MR STALLWOOD'S
PAPER
ON NORMAN
ARCHITECTURE



WEST DOOR. IFFLEY. OXON.



ARCADING ON WALL MUCH WENLOCK ABBEY

Whiteman & Bass, *Photo-Litho* London.

The heads of the panels were often formed of intersecting arches, as upon the western wall at Bristol chapter-house, and it has been imagined that the pointed arch had its origin from this kind of arcade, but it is my impression that the notion is a mistaken one.

The beautiful little Norman church at Barfreston in Kent, a photograph of which I produce, has the upper part of the external walls almost covered with arched recesses, and this kind of decoration occurs on all sides of the church as you see it in the photograph. You will notice that the windows which occur in the line of the arcading are quite plain circular-headed openings, and of small size; while the recesses which are introduced as decorative features are larger, and have the roll moulding on the edges of the arch and continued down the jambs, terminating at the bottom with a small moulded base.

The pillars of the buildings of the Middle Ages are divisible into two distinct classes, which we may call *Columnar* and *Compound*, and both these forms occur in work of the Norman period, and are not unfrequently found alternating throughout the entire ground storey of an arcade. Simple circular pillars of the first-named class are generally very massive, and in work of early date have a diameter in some cases equal to half the height. Sometimes they have a round capital and sometimes a square; they are generally quite plain, as in the nave of Gloucester Cathedral. There are, however, many instances where the massive circular column is ornamented with channels in various forms—some of zig-zag form and some spiral, as at Durham Cathedral, and also at Hereford and Norwich. *Compound* or clustered pillars are extremely numerous and much varied, the simplest of them consist of a square with rectangular recesses at each corner, but this form was soon improved by introducing a small circular shaft at the angles of the square, and sometimes a larger semi-circular shaft upon two or more of the faces of the square pier, as at Rochester. Most of the compound pillars partake of this arrangement, though other varieties are by no means rare; one very common one is well shewn upon a photograph of the nave at Hereford, where coupled slender shafts are attached to the heavy circular columns, and I would point out that in the nave of Rochester the pillars of the arcade all vary. Columns of the Norman period were sometimes banded, but this is never met with except in very late work.

The capitals of the piers and shafts were at first very plain, and there are few features in the Norman period more striking than that very common form known as the "cushion" capital, which crowns the heavy cylinder piers and upon which the square masses of the descending pier arch were "cushioned," as at Peterborough Cathedral. There is also another form which is extremely prevalent, very much like this, but with the under part of the capital cut into a series of conical mouldings which spring up from the top of the moulded necking: this kind of capital continued in use till quite the end of the style. The forms of enrichments used by the Normans in their

capitals are of an endless variety, chiefly grotesque representations of animals and leaves, and the ornamentation is very frequently carried into the abacus, but I believe this is always regarded as evidence of a late date.

The bases of columns in the earlier period of the style have generally but few mouldings, and *those* of very shallow projection, but as the style advances they increase in numbers, and very often bear a very close resemblance to what is called the "Attic" base of the ancients. Sometimes bases were employed that resembled an inverted cushion capital. When the lower pedestal upon which the pier stood was square, and the base of the shaft was round, the interval which occurred at the corners was very frequently filled up with carving which consisted usually of a small piece of foliage, rude in many cases, but sometimes very gracefully arranged. To the great columns of the nave at Fountains Abbey there are curious bases, one half being richly moulded, and the other half quite plain with nothing but a square pedestal. Where the base is moulded, that part of the column is "compound" or clustered, while the other half next to the nave where there is no base is quite plain. Of the sculptured ornamentation of the Norman period, it is difficult in my humble opinion to speak in terms of too great praise, and when viewing the beautiful carving around the south door at Ely or that of the west door at Rochester, one becomes perfectly surprised at the extraordinary power of invention and the endless variety of design in such ornamentation, and although in succeeding ages great chasteness and elegance of form is displayed, there is an absence of that versatility of design which marks the productions of the clever carvers of the Norman period. The ornamentation consists principally of the various kinds of carving used upon mouldings surrounding the arches of doors and windows, and that most frequently met with is the zig-zag, which is used in great profusion, as upon the west front of Iffley Church (see view and photograph). This may be regarded as the most common form of ornamentation in use amongst the Normans, and perhaps next to this may be named the beak-head moulding, which consists of a hollow and a large round, and in the hollow is carved the heads of beasts or birds, and the mouth or the tongue extends beyond the hollow and encircles the round moulding. Both of these common forms of ornamentation vary considerably in detail, but it would be impossible to give any adequate description of these variations in so short a paper; but many of the photographs exhibit this kind of work, and from them you will see how much variety is displayed. Another common ornamentation much used in Norman work, called the "billet" mould, was formed by cutting a moulding in notches, so that the parts which are left projecting resemble short bits of stick or wooden billets set into a hollow moulding; they are often used in single rows, but where more than one row is used the billets are placed interchangeably with each other.

Other ornaments of various kinds were introduced amongst the Norman mouldings; those most commonly met with being the cable,

square billet, the nail-head, the embattled fret, and the different forms of lozenge enrichments, besides an endless variety of stiff scrolls, sometimes including beautiful bits of foliage, and sometimes birds, beasts, etc. There is also an ornamented moulding which is cut into a succession of "stars," as upon the imposts of the door at Caversham church.

The corbel tables beneath the eaves or parapets were usually formed of a series of small arches with corbels or brackets to support the projections, and these were carved with heads of men or animals, and we usually find that there are no two corbels alike. At Barfreston Church there are no arches to the corbel table, but the carved heads support a straight projecting eaves course, and where this is continued as a string across the east gable it is richly carved upon the surface.

Of figure sculpture there are no examples that I am aware of, except such grotesque representations as are sometimes found in shallow arched recesses, as upon the south wall of the chancel at Barfreston (see photograph); but in door openings where the arches are elaborately ornamented, the space between the flat head of the door itself and the semi-circular arch over it—which is called the tympanum—is almost always filled with sculpture, either of emblematical figures or other ornaments, in great variety.

At Ely Cathedral there is a representation of our Lord in Glory, with attendant angels, and this appears to have been a favourite subject, for it is frequently found amongst Norman work in similar situations, as upon the south door opening of Barfreston Church, but here the attendant angels are curiously placed amidst scrolls with which the whole surface of the tympanum is covered. To those who have not seen this Norman gem, I think the photograph which I produce will be interesting, as exhibiting some of the most curious and at the same time the most beautiful carved work of the Norman period, and you will notice that on the outer face of the arch every stone is separately carved with a different figure, and that every figure not only in the outer arch but throughout the whole design is contained within an oval or circular border of foliage. This same idea as to a distinct piece of carving upon each stone of which the arch is composed, is carried out also in the head of the door opening at the west front of Rochester Cathedral, of which a sketch is produced, and in the tympanum is again a representation of "God the Father" with two attendant angels, and the emblems of the Four Evangelists are curiously introduced.

As to the mouldings of this period apart from carved ornamentation, it may be said that they were few and plain until nearly the time of the Transition, for the Norman architects never got much beyond the plain cylindrical edge-roll and shallow hollow. They bestowed so much attention upon the shallow surface decoration with which they ornamented the flat faces of their arches, that possibly the idea of deep hollows and bold projections was not fully comprehended, or what is more likely, was found to be incompatible

with the delicate superficial enrichment of which they appear to have been so fond.

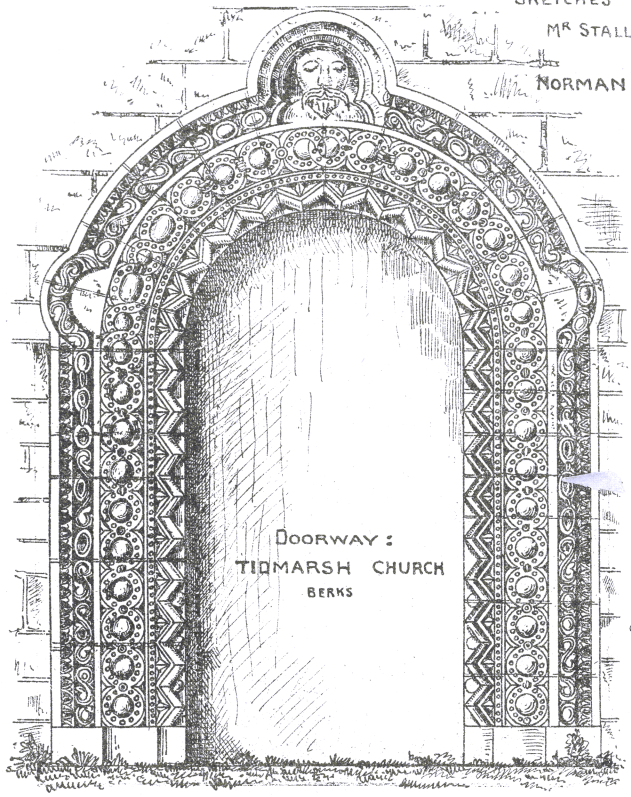
In the Norman buildings the most striking and important features are usually the door openings, which, as we have already seen, were frequently ornamented with rich and elaborate carvings, upon which the architects must have bestowed much care and attention, but in the earliest examples the jambs and arches were often only cut into square recesses, with a simple impost at the springing of the arch; but as the style advanced, shafts were added to the plain recessed jambs, mouldings and other enrichments were introduced and continued to be applied in increasing numbers, until they nearly or quite equalled the width of the actual opening; and as an example of this I produce the photograph of a doorway at Lincoln, erected 1145. Norman doorways usually have shafts in the jambs with caps just below the springing of the arch—but not always, for in some cases the arch mouldings are continuous, as in the west front of Iffley Church, Oxfordshire, and at Tidmarsh in our own county (a drawing of this is produced). The shafts are generally circular, but occasionally octagonal, and very frequently ornamented with spiral flutings or diapers as at Lincoln, zig-zags as at Iffley, or scrolled ornamentation as at Ely, and it is not uncommon to find shafts that are perfectly plain in the same jamb with those that are ornamented, and the Norman's love of variety sometimes goes further than this, for to the south door of the little church of Paddleworth in Kent, the shaft on one side is richly ornamented with spiral flutings, while that to the *opposite* jamb is quite plain, and I believe that this is not altogether uncommon.

In a few late instances a pediment is formed over the door arch by a projecting moulding, and the spandrils in such cases are always ornamented in some way, as at that valuable and most interesting structure the church of St. Margaret's at Cliffe, near Dover; photograph of which I produce. Sometimes that part of the wall through which the doorway was pierced, projected, and hence, from the necessity of protecting this projection the doorways became gabled and formed as it were shallow porches, as at Adel Church. There are, however, some Norman porches of large dimensions, but these are not at all numerous; the best example is perhaps that at Southwell Minster, which has arcades on each side of the interior to ornament the wall space, and a barrel vaulted ceiling; there is also a room over this porch which is part of the original Norman work, but this is not at all a common feature.

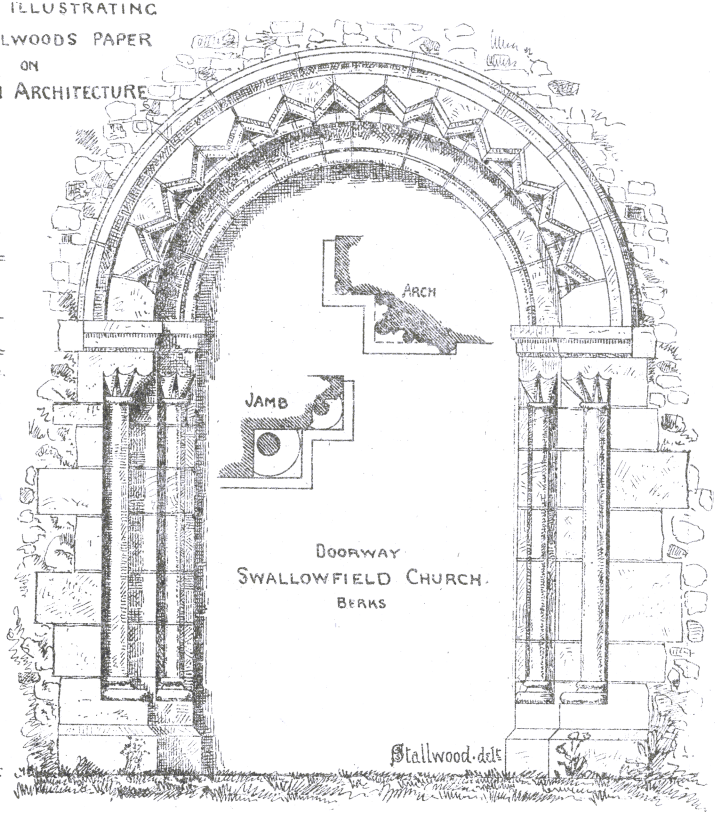
Amongst the photographs is one of a Norman porch at the church of St. Margaret's, York, which shews a bold and deeply splayed outer opening, but the porch itself is shallow and may be looked upon as a very good illustration of Norman porches generally.

The very frequent occurrence in all parts of the country of Norman doorways existing where all other Norman work has been swept away (as at Caversham Church), seems to give evidence of a feeling

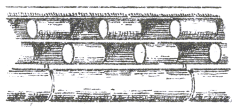
SKETCHES ILLUSTRATING
MR STALLWOODS PAPER
ON
NORMAN ARCHITECTURE



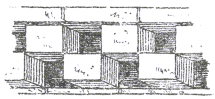
DOORWAY:
TIDMARSH CHURCH
BERKS



DOORWAY
SWALLOWFIELD CHURCH.
BERKS

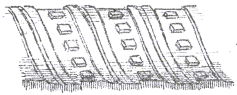


Roll Billet

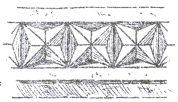


Square Billet

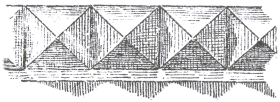
Cable



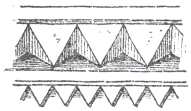
Cable (ornamented)

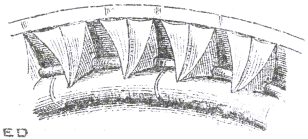


Star



Nail Head

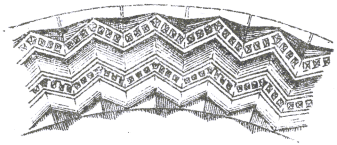


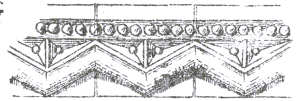


Indented

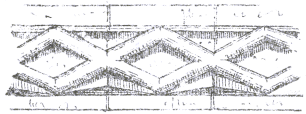
Double Cone

Embattled Fret

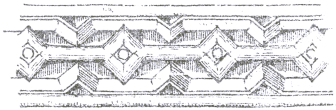




Zic zac Mouldings



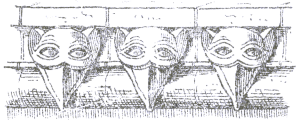
Lozence



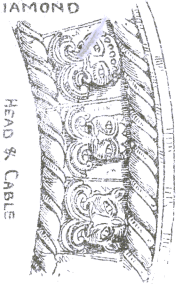
Diamond

Rose

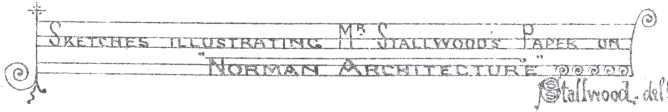
Studded



Cats Head



Head & Cable



Whiteman & Bass, *Photo-Litho*, London.

of veneration on the part of architects in succeeding ages towards these interesting works of the early builders.

The same remark applies, but perhaps with greater force, to the fonts of the Norman period, which are frequently found in buildings that possess no other Norman remains; this is of course easily accounted for when we remember the use to which they had been put for centuries, and the reverence and veneration that would naturally be felt towards the font at which many preceding generations had received the sacrament of baptism. It is probable, however, that some of the most richly ornamented fonts now found in churches did not originally belong to them, but were removed there at the time of the dissolution of the religious houses.

Of Norman fonts we have no time to say much, for they are so very numerous and of such varied form and ornamentation that anything like a description is not possible. They are frequently richly ornamented, but sometimes quite plain; in form they are usually square and supported upon circular shafts, but many are octagonal or circular, and in some cases they consist of a large block of stone dished out for the bowl and the whole outer faces covered with ornamentation, and in such cases arcades, or tiers of arcades, frequently form the principal feature of the design.

Some of the Norman fonts are of lead, and there is one of these at Wareham which is hexagonal, and has an arcading all round, with two semi-circular arches to each side of the hexagon, and representations of the twelve apostles. Of this a friend has lent me a sketch, which I produce.

The earliest form of Norman fonts appear to have been the tub shaped, and the cube, and later on the bowl retained its circular shape but was raised upon a low stem, and perhaps one of the most beautiful examples of this is in the church at Shefford, in this county.

As to the windows of the Norman period, there is not very much to say, for although varying much in size and position they did not vary much in form.

In the early Norman buildings, and especially in small churches, the openings were small and narrow, always with circular heads, and placed in the massive walls at as great a height as possible from the floor. They have usually a considerable internal splay, but none on the outside, in fact there are instances where the glazing is set almost flush with the outer face of the wall, leaving the whole thickness of the wall available for internal splays. As the style advanced, and in more important buildings, a considerable advance was made in the decoration of the window jambs, which were often no longer flush with the outer wall, but regularly recessed and ornamented with small shafts, and the window arches were moulded at the edge, and often enriched with the zig-zag or other ornamentations. In some cases the arches were recessed in two or three orders, additional shafts were added, and a profusion of the most elaborate carving ornamented the heads of the lights, in some

cases extending to the jamb shafts and completely covering the innermost order of the masonry. The west front of Iffley Church affords some good examples; here the zig-zag is continued round the arch and down the jambs in an unbroken line in much the same way as in the door opening of the same front. The windows at Iffley in the west gable form a triplet, but this is a feature which is not generally characteristic of Norman work.

Circular rose windows are not unusually met with in Norman work, and these seem but natural in a style where rounded arches form a distinguishing feature. In the earlier period they are merely plain openings or simply moulded, but there are others belonging to a later period which have the zig-zag and other enrichments as in the west end of Iffley, or elaborate carving as at the east end of Barfreston. This last is said to be the most interestiug specimen of a Norman circular window in England. The practice of putting large windows into west walls during the "perpendicular" period has doubtless robbed us of many interesting Norman rose windows.

There are some windows of the Norman period that have pointed arches, but these vary from the semi-circular arch only in form, the details, ornamental accessories, and general characteristics of the two arches remain the same. It was a common practice anterior to the Gothic period, to introduce the two forms of arch in close connection the one with the other in the same building, and this is seen at Barfreston Church, where pointed recesses are placed side by side with semi-circular-headed windows.

I have now only one more feature as to which a few words should be said—namely, *vaulted roofs*. The earliest vaulted roofs of the Norman period are quite plain and of the barrel form, as in the White Tower, London.

In Norman work generally the space to be vaulted was divided out into squares of no great extent, enclosed by round-headed arches, the diagonal lines proceeded from the four corners and crossed in the centre producing angles or groins, the execution of which was doubtless a work of difficulty, and was at first avoided by constructing the vaulting of rubble work plastered on the under-side.

At a later period, when the construction of vaults became better understood, they were formed of stones which, though still rough, had a more regular form and laid in courses, but still without ribs; but when larger spaces were required to be vaulted, it became necessary to strengthen the groin, and so diagonal ribs of cut stone were added which, together with the transverse arches, were at first quite plain, but were soon afterwards moulded and in some cases enriched with zig-zag and other ornamentation. Good examples of Norman vaulting exist in the side aisles of Gloucester and other cathedrals. In the crypt of Gloucester the diagonal ribs are quite square and as massive as the transverse arches; and this, I believe, has always been considered as one of the earliest specimens of the diagonal rib.

It does not appear that the Normans ever contemplated the erection of vaulted ceilings over the nave of their cathedrals, or over other

wide spans, but their vaultings were always confined to low buildings, as crypts and the aisles of cathedrals; and it is obvious that their massive walls were sufficient to resist the thrust without the aid of buttresses whilst the height and the span remained of such moderate dimensions.

The frequent destruction of cathedrals and other ecclesiastical structures by fire, must have occasioned a strong desire to render the buildings secure against such accidents, and to do this the wooden roofs with which the Normans always covered their naves and other large spans would have to be superseded by vaulted ceilings. Much encouragement was probably given to induce a solution of the difficulty, but it was not until quite towards the end of the style that the Norman architects ventured to throw a vault over a wide space, and the contrivances necessary to get over the difficulties connected with the covering of a variable space as well as a variable height could only be met by using a variable arch, and this seems to have led to the general adoption of the pointed style. I fear that I have already occupied far too much of your time, and I know that I have been quite unable to do justice to so great and interesting a subject.