RECENT DISCOVERIES IN OXFORD CATHEDRAL.

By J. PARK HARRISON, M.A., Ch: Ch:

The fact now very generally admitted by archæologists that the early church builders seldom destroyed ancient walls, save for the purpose of enlarging churches, induced me during the last year to subject the mason's work of Oxford Cathedral to a closer examination than it had previously received.

The object more immediately in view was to ascertain whether any portion of the church, which history tells us was built by Didan and his daughter Frideswide in 727, and afterwards enlarged by Ethelred II, could be identified amidst the extensive Norman alterations and insertions which were carried out in the twelfth century. And as fragments of early work have been found built into the triforium walls of more than one of our cathedrals,[1] the first thing done at Christ Church was to search for remains of pre-Norman date above the vaulting of the choir and north transept aisles; the result being that numerous fragments were met with, partly built into the rubble walling and partly used as quoins in the Norman pilaster buttresses. Some of the fragments resembled carved work, of doubtful date, found in the cloister-area during the restorations carried out under the directions of Sir G. G. Scott in 1870. Besides these carved stones, however, there were others, which appeared to be portions of strings and imposts, with channels sunk in untooled surfaces. On one fragment, subsequently discovered in the clerestory-wall of the choir, on the north side, Mr. J. E. Palmer, who assisted in the search, noticed a small patch of bright red, on a ground of fine plaster, such as was commonly used in Roman times and long afterwards

[1] Even at Salisbury numerous carved stones were met with, which probably formed part of ancient churches and ecclesiastical buildings at Old Sarum.

(as, for instance, at St. Alban's Abbey) to make a smooth surface on jambs and arches when formed of brick or rough stone.[1]

It was at once seen that they might very well have belonged to a building with rag-stone doorways, such as were known to exist, though blocked up and concealed by plastering inside the church, at the east end of the Dean's chapel and the north aisle of the choir. These doorways and the wall in which they stood would probably have been accepted by most antiquaries as undoubtedly part of the church of the Holy Trinity, and St. Mary and All Saints,[2] which was erected in 727, had it not been for the belief long entertained by the late Mr. J. H. Parker, and other eminent archæologists that Anglican and Saxon churches were almost always built of wood; and, this being probably the case at Oxford, the church in question must have been entirely consumed by fire in 1002, with the tower in which certain Danes took refuge when devoted to destruction by Ethelred II. Closer research, and the discovery of numerous churches of pre-Norman date at length led the accomplished archæologist above alluded to to admit that he had been mistaken, and that a large proportion of early churches were built of stone. In the case of St. Frideswide's Church, the inference, from somewhat conflicting accounts, appears to be, as in many other cases, that it was only the roofs and furniture that were destroyed by fire. In Ethelred's charter, granted soon after the restoration of the monastery in 1004, it is stated that when the assailants failed to drive the Danes out of the church, fire was thrown on the wooden shingles of the roof; thereby implying that the walls were built of stone. Whilst another document expressly says that Ethelred at once repaired and enlarged the building,[3] and that the tomb of Frideswide, which was before on the south side of the church,[4] thereupon stood in the middle.

[1] A sufficient height of wall above the floor line in the "Second Saxon" Church has recently been discovered at Peterborough, to show the smooth plastering as it was originally used. The walling is of hewn stone.

[2] This further dedication was apparently adopted by St. Frideswide when founding her convent. See p. 276 post.

[3] Mr. J. Parker in the "Early Hist. of Oxford" quotes MS. Bod. Laud. 114, where the words *ampliavit ambitum* may imply that space was increased round the tomb. Ambitus ad sepulchrum in Riddel Dic.: "the space round a sepulchre."

[4] Anthony a Wood (MS. Hist) says Frideswide was buried in *a chapel* on the south side of the church. See note at end.

The very general belief, however, that Didan's church was built of wood forced archæologists to account for the two rude doorways by the unsupported theory that they were inserted for the purpose of admitting workmen, and hand-barrows of stone, at the time the Norman improvements in the twelfth century were carried out, or at some later period; notwithstanding their position in the centre of the east walls of chapels, and the fact that no doorways or openings so narrow as 2 ft. 9 in. or 3 ft. 3 in., are known to have been made for such purpose.[1] The only examples in Oxford—viz., one in the south wall of Merton College Chapel and another in the west wall of the north transept of the cathedral itself are much wider.[2]

Presuming the doorways to have belonged to the Church built by Didan and his daughter Frideswide, it was seen that they would most probably have communicated with some building in the nature of a crypt or "porticus," intended perhaps by the founder for his own burial place; apses being certainly used for such purpose at an equally early date, for example at Winchester and Lymidge.

To ascertain whether there was anything beneath the ground that would show this to have been the case, the permission of the Dean, and Canon Paget, in whose garden the exploration had to be carried on, having been obtained, soundings were made, and a trench dug in a straight line about 6 feet from the south doorway, when a foundation wall, composed of small rubble, concreted with gravel, was met with 18 inches before the surface. Contrary to expectation, however, the walling curved sharply in a north-westerly direction, indicating that any structure that had been erected on it must have been of an apsidal form and not of a square termination such as might have been expected in so early a church. On measuring the curvature it was found to be as nearly as possible a quarter circle. The remaining part of the foundation wall, assuming it to have once formed a complete semicircle, would evidently have been destroyed when the north wall

[1] A small round-headed doorway on the south side of the chancel at Iffley, which has been supposed to be an example of thirteenth century date, appears to have been originally a priest's door of the same date as the buttress adjoining, and the wall above it. A cornice, or string, which stops over the E.E. window marks the original projection of the chancel wall.

[2] In the latter case about 7 feet wide.

of the Norman sacrarium was built. When perfect the blank archway would have been opposite the centre of the apse.

The labourer was next directed to open another trench, also at a distance of six feet from the east wall, opposite the north doorway, when again curved foundation walling was found, but in this case somewhat nearer the wall of the church. It formed rather more than a quarter circle; and a grave on its south side accounted for the missing portion, assuming it to have been originally semi-circular. Here, too, as in the other case, the archway would have been in the centre of a perfect apse.

The earth thrown out from these excavations having been heaped up against the cathedral walls, (owing to the confined space in which the explorations had to be carried on), a complete examination of the interior of the apse was for the present deferred, and search made for the foundations of a central apse, the entrance to which was believed to be marked by a Norman pilaster buttress, 4 feet 6 inches wide, which stood midway between the two doorways. No curved foundation wall, however, was met with in the area between this buttress and the drive, though a small piece of concrete walling 2 feet long by 18 inches wide was exposed at the foot of the grave above alluded to. It was at once seen that it might have formed part of the north wall of the chancel of the church. At the eastern extremity of this wall there was a brick drain, which skirted the drive on that side, and received branch drains from the rain water pipes attached to the north wall of the sacrarium and the wall of the church at the south side of the pilaster buttress. Scattered stones of a similar description to those in the foundation wall of the north apse were noticed in the filling in of the branch drain on the south side, which indicated that foundations had been broken up.

Conclusive evidence that a central doorway did once exist was soon after obtained from a closer examination of the stone work on each side of the pilaster. This was mainly owing to the discovery made by Mr. Arthur J. Evans, keeper of the Ashmolean museum, when visiting the excavations. He noticed two ragstones on the south side of the pilaster buttress, one of which was

formed like the voussoir of an arch, whilst the other, immediately above it, was inclined to a common centre which proved to be rather south of the middle of the buttress. The wall adjoining on the south side of the buttress was partly concealed by a square down pipe; but on introducing a finger behind it, I found that the majority of the bonding stones of the buttress were of the same length; in other words there was more or less of straight joint in the rubble walling, corresponding with the line of the rude voussoir.[1] This, and the fact that there were no bonding stones on the north side of the pilaster showed that the lower part was built into a doorway about 9 inches wider than its own breadth. Its span would have been a foot wider than that of the chancel arch of the Saxon church at Bradford, in Wiltshire, and two feet wider than the arch between the tower and chancel of Wotton Wawen church in Warwickshire, the jambs and arches of which were also built of ragstone. Other examples of rude arches might be cited, *e.g.*, at Deerhurst, St. Martin's, Canterbury, and Minster in Sheppy, &c.

Encouraged by this discovery, and learning from Mr. St. John Hope that the chancel of the Anglo-Saxon church of Melbourne in Derbyshire, which terminated in an apse, extended considerably beyond the side apses, and consequently that foundation walls of a centre apse might still be found beneath the gravel drive, application was made for permission to make further excavations. This was at once granted, on condition that the trenches were filled in, and the road made good, so soon as the exploration was completed.

Starting from the east side of the main drain, immediately opposite the piece of rectangular walling above alluded to, and presumably part of the foundation of the north wall of the chancel, we at once came upon the same description of concrete work as before described in the north apse. It formed part of a semicircle, which it was ascertained by measurement, would, when complete, have faced the central arch. To save breaking up the gravel more than was absolutely necessary, only the inner

[1] Permission having been obtained and the stones accurately measured. the pipe was subsequently taken down,

line of the foundation wall was at first laid bare. Mr. Evans, however, on again visiting the excavations suggested that it would be more satisfactory to ascertain the exact thickness and terminal outline of the walling. The excavation was consequently extended about two feet six inches further to the east, when the foundation proved to be of the average thickness of two feet, and the soil beyond quite undisturbed. The missing portions of the walling, to the north and south, were satisfactorily accounted for by the direction taken by the main drain and by some pits which had been made for the re-interment of bones found elsewhere in the Close. The quantity of detached stones collected in the course of the excavation would have about sufficed to complete the missing portions of the concrete walling.[1]

A question of some interest arose whether the apses and doorways were all of the same date. So far as their construction was concerned, they did not appear to be so; and this seems most in accordance with history. We are told that Didan founded a church, which he afterwards gave to his daughter, at her request, for the purpose of a convent. The original church would consequently in all probability have required enlargement. Now, as a fact, the north and south doorways are not of equal width, and there is a corresponding difference in the size of the apses. The stones, too, in the foundation wall of the south apse are somewhat larger than in the other two.[2] Didan's church, also, according to Hearne,[3] was dedicated to the Holy and undivided Trinity, "without any more title or addition." It has been already said[4] that the additional dedication in honour of St. Mary and All Saints would probably date from the foundation of the convent, and it is worth noting, as assisting in the identification of the site of St. Frideswide's church, that the chapel now styled the Deans' (or "dormitory," because they were buried there) was anciently the Lady chapel. It adjoins the north aisle of the choir, and occupies the site of the supposed enlargement by St.

[1] These stones were used when the road was restored in making a dry wall along the line of main drain to support the materials, whilst further search was made in the central apse.

[2] The Surveyor of the Cathedral pronounced the latter to be "field-stones."

[3] Ant. Oxon. p. 31.

[4] p. 272 note.

Frideswide. Evidence, pointing to the position of her grave, supplied by the charter of Ethelred has already been alluded to, and its importance will be admitted when it is considered that the present choir is situated on the south side of the church in which she was interred; and this, equally so, whether we believe that the eleventh century work was, at some unknown period, altogether destroyed; or, with Storer and Ingram, think that some part of the original building may still exist, however much disguised by Norman additions and interpolations.

The adoption of the Eastern plan of three apses at Oxford and in other parts of England, at about the same early period (as, for instance, Melbourne and Lindisfarn), no long time after the death of Archbishop Theodore, may very possibly be due to his predilection for this arrangement. All the earlier British churches, which were not built on the Basilican plan, appear to have been designed with square chancels. The churches in Syria, Theodore's native country, were always constructed with three apses; and the absence of any holes or decided marks of junction in the rubble walling which has been observed at Christ Church may perhaps be due to the fact that there is always a passage, from apse to apse, in Eastern churches, at the back of the wall containing the three doors which open into them. There would, therefore, be no marks in the wall of St. Frideswide's Church, if similar means of communication existed there; except at the north and south extremities. The north wall of the Norman sacrarium, however, occupies the place of the south wall of the apse on that side; there would consequently be merely the junction of the terminal wall of the north apse to be considered, and here indications exist that rubble stones were very possibly inserted. However, it may well have happened that holes in such rough walling may have been filled in, but the walls having been since pointed, and that, perhaps, more than once, this, and exposure to the weather for several hundred years, would have completely obliterated all signs of the operation. Further evidence of the antiquity of the east wall might be adduced from the fact that the sill of the south doorway, next the sacrarium wall, was found, on moving the earth on the

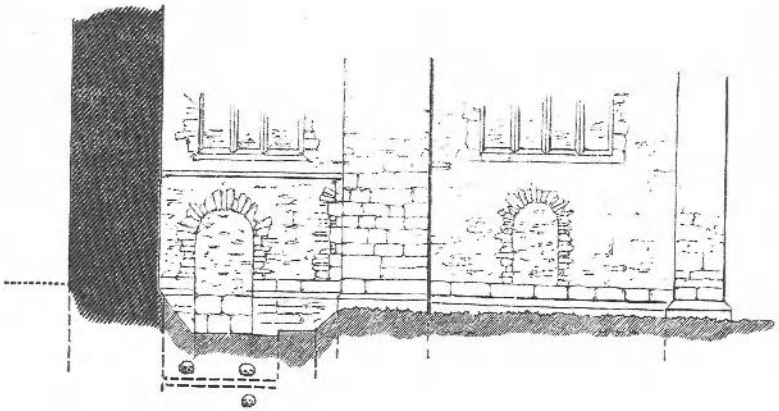
outside, to be more than two feet below the level of the pavement of the Norman Church. (See plate.) Also, the old walling appears to have been underpinned and a plinth introduced, apparently in Norman[1] times. This was probably done at the time that the wall of the north choir aisle was raised to its present height, and the pilaster buttress added to resist the thrust of the new vaulting. It is significant that the plinth is not continued across this doorway. It shows, perhaps, that access was still afforded to the spot where St. Frideswide's remains had been interred, though they had been some time before removed to a more fitting place; the vault found beneath the tower in the course of the restorations.[2] The apse, probably, after this, was no longer kept in repair. In the case of the north doorway, the new plinth was carried straight through, at the time the wall above it was raised, and new work introduced. And the proof that this plinth was added, and not built with the wall, consists in the fact that it is not horizontal, like the Early English string course higher up in the wall, but slopes with the old coursed rubble. Then, the fact that the Norman sacrarium wall is quite 12 inches thicker than the east wall of the choir aisle affords conclusive proof that the latter is the oldest, and accounts for the strange mutilation of the west jamb of the side window in the north wall by the addition to the height of the older wall adjoining, which was rendered necessary when the Norman vaulting of the choir aisles was introduced. Structural evidence also exists in the interior of the church that the vaulting shafts in the north choir aisle were inserted in pier walls of squared stone, probably erected by Ethelred when the high altar of St. Frideswide's was dedicated in the new chancel.[3] The central apse and chancel would then have been rendered useless.

Returning to the old doorways and foundation walls of the apses, the good condition of the ragstone forming the jambs and arches of the doorways, as compared with the stone employed in filling them up, points again to their

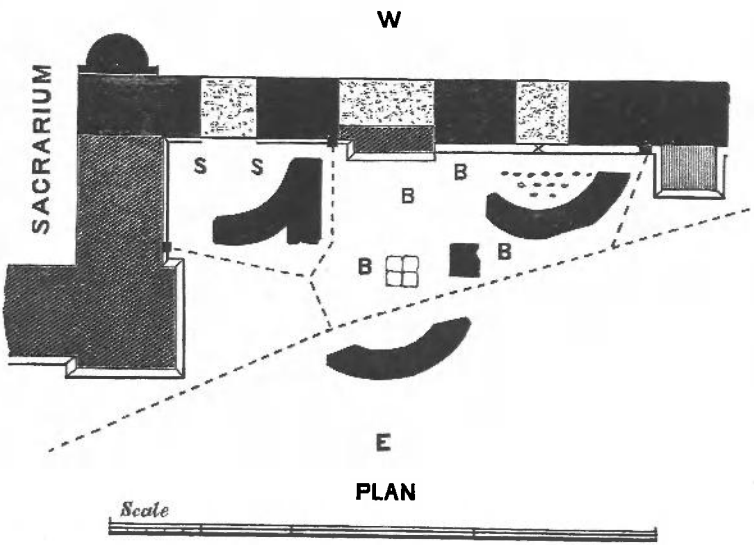
[1] A plinth was inserted in the west wall of the north transept in a similar way.

[2] See, however, the note at the end of his paper.

[3] See more particularly the west pier of the arcade between the north aisle and St. Mary's Chapel, where the joints of the stones prove that the shafts are insertions.



Pre-Norman Remains Oxford Cathedral.



Dark tint, pre-Norman ; Diagonal lines, Norman ; Upright lines, Early English. Dotted lines on plan, Brick Drains ; S S, Skeletons ; B B Bones.

early date; the quarries from which the Normans obtained their free-stone not having been opened, or, at any rate, not used previously. The ragstone was much more durable, and may, perhaps, have been preferred by the earlier builder on that account. The older mortar also was far stronger than that employed by the Normans. These differences in the masonry of the jambs and arches of the doorways, as compared with the filling-in, shows that they were not stopped up until a considerable period had elapsed after they were built. Lastly, the quantity of charcoal and reddened stone,[1] which has all the appearance of having been subjected to the action of fire, found inside the apses, might be also adduced as confirmatory of the conclusion that they formed part of the building, the roofs of which were burnt in 1002.

Before filling in the excavations, opportunity was taken to ascertain, by further examination, whether the apses contained anything that would indicate the purpose to which they had been applied. Two skeletons were found in the north apse, one of which, on the south side, had been interred at full length; and part of the foundation wall on that side had been removed for the purpose. The skull, which was carefully examined and accurately measured by Mr. Arthur Thomson, the Reader in Anatomy, was well formed. It inclined on one side: the stature was about 5 feet 7 inches or 5 feet 8 inches The other skeleton had been interred in a contracted position, and the skull had fallen into several pieces. Both interments had evidently taken place in post-Norman times, the skulls being found close to the east wall, and stone tiles were used as the only covering. Finding that the ground beneath sounded hollow, on moving some of the earth, it was found that the skeletons were lying on some pieces of slabbing which appeared to extend across the apse. The slab on which the contracted skeleton lay was consequently tilted up by Woods, the labourer, with the earth upon it, when it was found that there had been another interment underneath. So far as could be seen, the length of the bones, compared with those above the

[1] Specimens are preserved in the gallery over the vestry in the Cathedral. Prof. Carruthers kindly determined the wood which was used—viz., birch; and Dr. Woodward was satisfied that the red colour of the stone was due to fire.

stone slabbing, showed that they belonged to a woman or a man of short stature. The skull was wanting.[1] It is not at all improbable that the remains may be those of the founder of the church, or his wife Safrida, who were both buried in the church. In any case, the discovery showed the use to which the apse had been applied at a very remote period.

The labourer was now directed to remove the earth from a layer of stones which had been noticed before, and were suspected to form part of a pavement in the north apse. The prevision appeared to be correct; the stones were found to lie evenly in the soil, and occupied the whole area, excepting on the west side, where there had been a trench dug along the line of the church wall. On moving some of the stones in the centre, a skull, placed upright and facing the east, was found about 12 inches below the floor, surrounded with rough stones. On an attempt being made to measure it, it fell into pieces, but was afterwards restored sufficiently to show that its racial characteristics were very marked. It closely resembled some skulls in the Natural History Museum found by Dr. Rollesten at Fritford. Their peculiarity consists mainly in the great protuberance of the lower occipital region, at the back of the head. The skull in question was replaced in its old position. There remained only the central apse to be further explored, and here the labourer was ordered to remove the earth to a depth of three feet. Whilst I was absent several bones were met with on the north side, just above five stones which appeared to have been fitted together in the chord of the apse. They were raised to the surface and have been arranged in a corresponding position over the spot where they were found. Other bones being noticed immediately adjoining the stones, to the south, it seemed probable that an interment had taken place there also, but at a greater depth; and that stones of a similar description may have been removed. The five found would not, by themselves, have formed an altar of sufficient length, or height; nor did they stand in the centre of the apse. Still it is possible that they may have been part of the altar of

[1] This may have been due to the fact that it would have been in the line of the trench required for the purpose of underpinning the east wall.

St. Mary's church. It remains to say that square stakes of sufficient length were driven into the ground, at short intervals, round the concrete foundations, before the trenches were filled in; the true perpendicular being obtained by a plummet. Stones were then set in the gravel which show as nearly as possible the outer line of the foundation walls of the central and northern apses. The foundation of the southern apse remains open, and the south doorway is shown to its full height.

The size of the church would appear to have been about six feet wider than that of the crypt of St. Peter's in the East, and was probably divided into three aisles.

In a supplemental paper, communicated to the Institute in February, I stated, as the result of an examination of the masonry of the south-east pier of the tower, that the Norman attached shaft which supports the chancel arch on that side was of a later date than the pier walling to the east of it. There is the same break of joint that occurs in the case of the Norman vaulting shafts in the north aisle of the choir, already alluded to as showing the shaft was an insertion in an older pier. Additional proof has been obtained from casts and rubbings of the tooling of the ashlar half way up the tower pier. It is certainly not Norman, being, as found elsewhere in pre-Norman work, marked with cross lines.[1] The size and shape of the stones also are different from Norman masonry. In the south transept early masonry of a similar description was detected in the pier wall at the north end of the aisle; and also in the angle pillar adjoining the half column next the vestry door, where three courses break joint with the Norman work, and there is a marked difference in the colour and grain of the stone.

What is more important, however, is the existence of a pre-Norman base, or rather part of the moulding of a base, belonging to the angle shaft, and formed of the same stone as that just described. Unfortunately, when replacing the decayed or fractured part of this base eighteen years ago, Sir Gilbert Scott's clerk of the works, added a foot-ornament under the belief, as it would appear, that all

[1] Numerous rubbings of Norman tooling on ashlar at Ely, Peterborough, Winchester, St. Bartholomew the Great, and other churches show that it is always diagonal.

the carved stonework in the Cathedral was of the date of some bases found in the east wall of the sacrarium, and might consequently be finished in the same way when new work was introduced. The incongruity between this refined twelfth century ornament and the rude, flat moulding of the base would at once strike anyone at all acquainted with the minatures of buildings in Saxon manuscripts. Happily, enough of the old base was left to shew that it was in other respects carefully copied.[1]

Other evidences of the existence of pre-Norman masonry was obtained from an examination of the walls of the south transept in the gallery above the vestry, and in the ambulatory of the east clerestory.

And lastly, a careful examination of the masonry of the nave has shown, that much of it has been rebuilt, and in part with old materials. The octagonal pillars, however, both from the sharpness of the stonework and the style of their capitals, would seem to have been entirely new. Also, the pointed arches in the clerestory have been found to be of later date than the stonework which supports them, seeing that the ashlar, where any occurs above the line of springing, is tooled in the early English way; whilst no instance of similar tooling has been detected at a lower level, or in the transept clerestories where all the arches are round. The pointed arches may perhaps date with the two in the tower, which open into the north and south transepts, and so far as can be seen, are insertions in an older wall.

The conclusions to which I have arrived accord, generally, with Dr. Ingram's views and with history, viz:—

1. Some part of the church in which the Danes were burnt is still existing.

2. The walls of Etheldred II's Church (which Mr. J. H. Parker, perhaps following A. a Wood,[2] believed was

[1] Some new stones which were introduced in the half column during the restorations are tooled in a different way from the rest of the new work. On enquiry I found from Mr. Axtell, the manager of Messrs. Simms, the builders, that they were no doubt tooled in imitation of decayed stones which were then replaced.

[2] In Anthony a Wood's Index of M. S., authorities, consulted by him, in the Bod. Library, is a Life of St. Frideswide which is stated to have belonged to Jesus College; but in a note subsequently added in his handwriting it is said to be "wanting" in April, 1671. This MS. may have supplied Wood, and also Hearne with information connected with St. Frideswide not found in the Laudian and Cottonian MSS., *e.g.* Wood says that

not destroyed until late in the twelfth century), escaped, or at any rate were not injured by the second fire that probably damaged much of the ornamented stone work.

3. Robert de Crickdale restored the church on the old plan, rebuilding those portions of the walls that required it, and inserting most of the later Norman work.

Much of the earlier work appears to have been imitated, as is known to have been the case elsewhere, when enlarging or re-building a church; and some of the carved work was used again. To show this in detail, however, would require more time than I can now devote to the subject; and the present paper is concerned with the masonry and not, save incidentally, with the ornamental features of the Cathedral.

when the remains of Frideswide were removed from the tomb, which had contained them for 480 years, they were deposited in a richly gilt coffer which was placed in the North Choir Aisle, in a (temporary) wooden Shrine. And in another place, Wood mentions that St. Frideswide was buried in a chapel on the south side of the Convent Church. This is important, because the "chapel" was presumably a porticus, or apse.