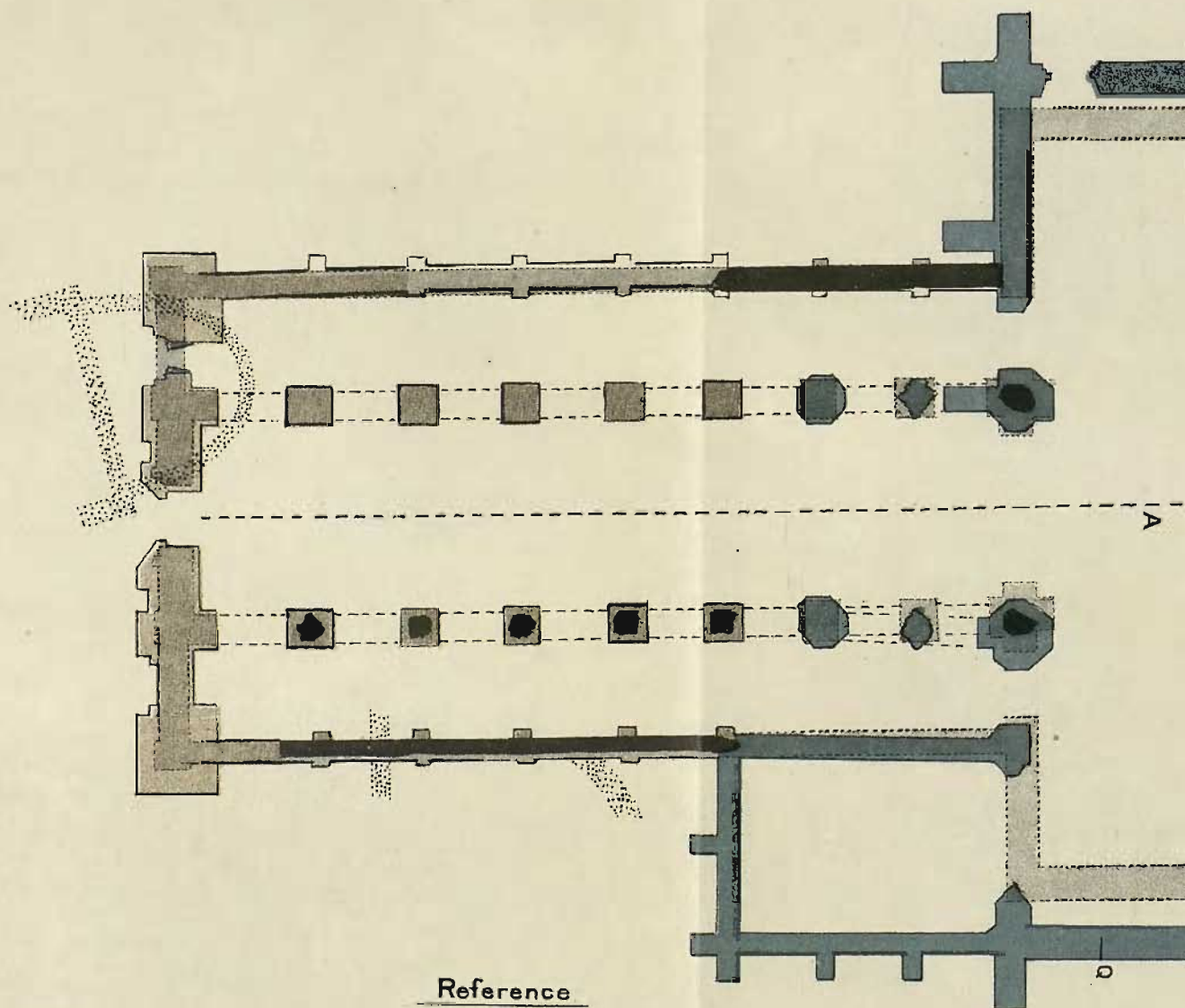


PLATE I.

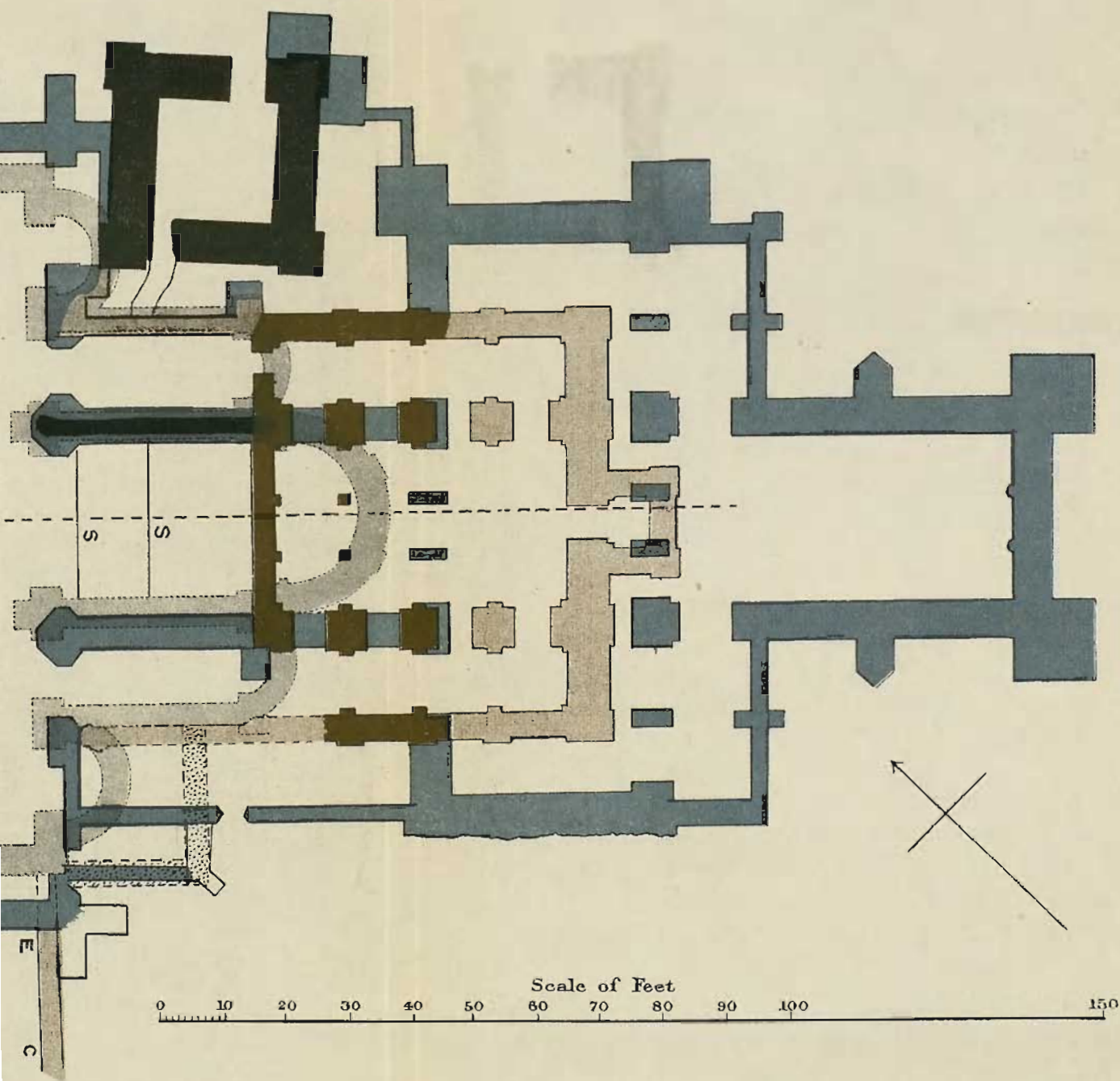
CATHEDRAL PRIORY CHURCH OF
ROCHESTER



Reference

- | | | | |
|--|--|-----|--|
| | Probable XI th Century remains | | Saxon Churches & 'Lesser Tower' |
| | Conjectural Completion XI th c. Church | S.S | Steps |
| | XII th century in Nave & P in Choir | E.C | Line W. wall of Ernulf's Western Range |
| | Existing Norman Crypt. | Q | Quoin in South Transept Wall |
| | XIII th XIV th & XV th century work | A | Axis of Gundulf's Church |
| | Post Suppression & Modern | | |

To face page 187.



GUNDULF'S CATHEDRAL AND PRIORY CHURCH OF
ST. ANDREW, ROCHESTER: SOME CRITICAL REMARKS
UPON THE HITHERTO ACCEPTED PLAN ¹

By F. H. FAIRWEATHER, M.D., F.S.A.

The Cathedral Church of Rochester occupies the position of a very important link in the development of Romanesque architecture in England after the Conquest. Its construction followed immediately upon the building of Lanfranc's metropolitan church of Canterbury, and its designer, the new Bishop of Rochester, Gundulf, had come to his diocese straight from the scene of the latter work, in which he had probably borne an important part. Lanfranc's church had been built upon the most strictly normal and conservative model, and, bearing in mind the strongly traditional character of the known churches which preceded and immediately followed the building of Rochester, we should naturally have expected that Gundulf, a Norman by birth, a monk of Bec Hellouan, the friend and right-hand man of Lanfranc, familiar with the Normandy churches of the traditional type, would have certainly followed the conservative tradition in his new buildings at Rochester.

The hitherto accepted plan of Gundulf's church is based upon an account of the church and monastery published by Sir Wm. St. John Hope in 1884 in *Archaeologia*, vol. xlix, and in 1898-9 in *Archaeologia Cantiana*, vols. xxiii and xxiv, and a very different condition of affairs from the normal is asserted. Gundulf's church is here credited with a normal nave, a square ended eastern limb aisled to its extremity, of a type which is not shown elsewhere in England for at least two-thirds of a century (raised upon a crypt of the same plan), and finally these eastern and western extremities joined together by a transept, so

¹ The following paper was originally put together for the writer's own satisfaction in 1926, but on account of its controversial

nature was withheld. On a definite request for some observations on these lines it is now put forward.

inadequate in scale that it would be little larger than a wide passage, with no provision for eastern chapels, and so dwarfed that no central tower could be provided. A small square chapel projected from the east front.

Sir Wm. Hope's own description had perhaps better be given :

'The plan of the first Norman church, which may for convenience be called Gundulf's, even if Lanfranc built it, was peculiar. It consisted of a nave and aisles which, though left unfinished, were intended to be at least nine bays long ; north and south transepts ; and an eastern arm, with aisles, of six bays, with a square end with a small rectangular chapel projecting from the centre of the front. The four easternmost bays were raised upon an undercroft. There was no tower over the junction of the nave and transepts, nor any western towers, but the detached campanile . . . stood in the angle of the north transept and eastern arm, and was balanced, as it were, by the smaller tower on the opposite side of the church. This was, however, an integral portion of the fabric. It will be seen . . . that in the disposition and arrangements of the east end, and in the narrowness of the transepts this church stands alone, and differs in a marked manner from the typical Norman plan' (Arch. Cant. xxiii, p. 203).

The writer had always regarded this solution of Gundulf's planning as highly unsatisfactory, but, as it rested upon the definitely asserted observations and convictions of such eminent and experienced observers as Sir Wm. (then Mr.) St. John Hope and Mr. J. T. Irvine,¹ had considered that their proofs must rest upon an unshakeable foundation. It was, therefore, with considerable surprise that, on a routine examination and weighing of the evidence, it was found upon what an unsubstantial basis these proofs rested, and that in each case where the abnormal had been accepted, the evidence when critically examined proved to have a perfectly possible normal explanation.

The criticisms in the following remarks are an attempt, put forward with some diffidence, to prove that the normal plan certainly could, and most probably did exist, and that the transept assumed by Sir Wm. Hope possesses no real proof of the abnormal form he assigns to it, but was probably of normal scale and plan, and that the eastern square-ended limb of the church was that of an extension of the choir at a much later date than the work of Gundulf.

As the material of this paper necessarily resolves itself

¹ Mr. Irvine worked under Sir Gilbert Scott in many restorations.

into a criticism of Sir Wm. Hope's conclusions, it has been obliged to assume the somewhat tedious form of quotation from his articles, already mentioned, with comment thereon. All possible care has been taken that quotations are not unfairly divorced from their context, but the paper should, to prevent any possibility of this, be read along with Sir Wm. Hope's own work on the building. The quotations are lettered for convenience in reference.

The reasons for Sir Wm. Hope's rejection of the possibility of normal planning may be tabulated under the following heads :

I. Influence of Gundulf's 'local' and 'English' tendencies.

II. Cramping of the site by earlier structures.

III. The form of termination of the existing Norman crypt.

Sir William Hope himself classified the difficulties somewhat differently, and says :

A. 'The considerations influencing this singularity of plan are (1) The existence of earlier structures. (2) The two-fold division of the church into monastic and parochial. (3) the possession and acquisition of relics' (Archaeologia xlix. 323).

The first of these has already been selected for discussion. The two latter require no lengthy consideration as, not only does Sir Wm. Hope omit to proceed with proof of their being causes of abnormality (the only point he makes being that parochial considerations may have retarded the completion of the west and north-west nave), but it is well known that both these factors occurred in many Norman Benedictine churches of the period, and yet caused no departure from the normal planning.

The discussion may, therefore, be continued on the basis laid down :

I. *The question of Influence.* Sir Wm. Hope says :

B. 'This remarkable plan seems to have been made, as were those of other buildings erected by Gundulf in Kent, on an English rather than a foreign model, and it is interesting to find the native idea reasserting itself so early. The Cathedral church of Old Sarum seems to have had a square end like Rochester, but I have not yet found any parallel to the small eastern chapel, or to the disproportionately narrow transept' (Archaeologia xlix, 325).

It is unfortunate that the 'other buildings' quoted here are not specified and proved to be definitely Gundulfian.¹ The only one building really comparable in scale and purpose is Gundulf's foundation of Malling; there, unfortunately, the eastern terminations of choir and transepts have never been explored. It is to be noted, however, that the body of the transept is of normal scale and form. On the other hand at the Tower of London, where the construction is definitely known to have been largely controlled by Gundulf, the design is importantly modified for the express purpose of providing an apse for the religious portion of the building, and at the Hospital of St. Bartholomew at Rochester, another of the Bishop's foundations, the Chapel, though probably built a short time after Gundulf's death, shows again the typical apse. With regard to the comparison of Old Sarum, exploration has shown, since Sir Wm. Hope's paper on Rochester was written, that the square end was an addition of the middle of the twelfth century, to a church originally possessing the typical apsidal termination.

With regard to 'local' influence :

C. *'The church built by Lanfranc at Canterbury, with which Gundulf must have been familiar, showed no marked departure from the normal arrangement ; yet here we have a church so different that, except in the correspondence between the number of bays in the nave, it resembled it in no feature whatsoever. All is abnormal and all is distinctly local, and herein perhaps lies the explanation'* (Arch. Cant. xxiii, 204).

Now, by 'English' in quotation B and by 'local' here, Sir Wm. Hope can only mean Saxon. The probability of Gundulf's being influenced by Saxon buildings in other parts of England, even apart from their inferior scale, is extremely remote. His education was known to be definitely Norman, while, for the 'local' conditions at Rochester, underlying this very site are the remains of two buildings, one under the north-west angle of the present nave and one beneath the south wall of the nave aisle, both of which show an eastern apse. The argument that Gundulf was influenced by 'English' or 'local' influences to produce a square eastern termination to his church, therefore, becomes extremely unlikely. Moreover, Sir Wm.

¹ Parish churches are, of course, of no comparative value.

Hope's quotations show evidence of influence of an entirely different character in Gundulf's rebuilding :

D. ' *Therefore a short time having elapsed (i.e. from Gundulf's consecration as Bishop) a new church, the old one having been destroyed, is begun. Circuits of offices are conveniently disposed. All the work is finished within a few years, Lanfranc assisting with large sums of money . . . the venerable father (Gundulf) . . . approached the tomb of the most holy confessor Paulinus, who had been buried in the old church and caused . . . his sacred relics to be removed into the new church* ' (Anon. Life of Gundulf, Cott. MSS. and Wharton A.S. ii, 280).

The translation of the relics is elsewhere attributed to Lanfranc, adding a silver shrine. In the Canterbury Martiloge, written c. 1520 but based on old records, Lanfranc is credited with the whole of the work. Again :

E. ' *If due regard be had to the subordinate relation in which the See of Rochester formerly stood, and even yet stands, to the Metropolitan See of Canterbury, it is very possible that the archbishop was actually, though the bishop was nominally, responsible for the foundation of the monastery of Rochester and the building of a suitable church for the new convent. It is also probable that Lanfranc, although he had recovered the former possessions of the church of St. Andrew, kept them in his own hands for a time and spent the revenues arising from them on the building and monastery in which he took so deep an interest* ' (Arch. Cant. xxiii, pp. 199, 200).

From the above extracts the powerful influence exercised by Lanfranc on the building is clearly evident, and it appears that his was not improbably the paramount influence, and yet a totally abnormal, and certainly not improved plan, has been accepted for this church, when Lanfranc himself was just completing his new metropolitan church on strictly traditional lines, and in keeping with all the known monastic church plans of the apse-and-choir-aisles type of his period. It has already been pointed out that Gundulf was with Lanfranc at Canterbury during the greater part of this work, leaving only a short time before its conclusion, and it is by no means unlikely that both ideas and workmen were transferred with him to Rochester for the planning and execution of his new building.

Sir Wm. Hope's second line of argument is founded upon

II. *Cramping of the Site by earlier structures*

When Gundulf became bishop the available site for planning his church and monastic buildings was a strip of

land lying north of the Roman wall which was the south boundary of the city, and east of the road (now King's Head Lane and Boley Hill), which ran from north to south and led out of the City through the Roman south gate. Just east of this road, its apse foundations now underlying the west end of the existing north nave aisle, stood the small early Saxon church, identified in 1888, and fully described by Canon G. M. Livett in *Arch. Cant.*, vol. xviii.

Another apparently larger apsidal building stood at some time on the line of the south wall of the south aisle of the present nave, and, if still existing at the time of Gundulf's laying out of his church and cloister, was marked for destruction, as it lay within the limits of the latter, with its north side overlapped by the lines of the new south aisle. It was discovered by Mr. J. T. Irvine in 1876, and it is by no means improbable that this was the monastic church described as being in ruinous conditions when Gundulf took over his episcopate. The smaller Saxon church was apparently allowed to stand during Gundulf's first laying out, and thus the retention of this and the position of the Roman wall gave definite western and southern limitations. Eastward of this the ground was open, including the site of the present church and that of the old ruined tower still standing to north-east of the present north transept. Within these limits Gundulf laid out his church and cloister. The situation of the latter has more than once been criticised as 'cramped,' but on measurement it becomes obvious that a square, based upon the south wall of the nave of Gundulf's church, allowed space for a cloister 106 ft. square, with room for a southern claustral range, parallel to the Roman wall, of 34 ft. wide over all, both these dimensions being of normal and ample size.

Under the above conditions we may now definitely conclude that any further limitation of the site for the church is by Gundulf's own arrangement and execution, yet Sir Wm. Hope credits him with building a north tower, and laying down a south-west angle for his south transept, which rendered the laying out of a normal, or even a reasonably competent, transept impossible.

This brings us to the consideration of these two factors which are actually the crucial points of the whole matter.

The North Tower. This is a massive tower, still

existent, with its western face partially engaged with the eastern face of the present north transept chapel. It is practically a small keep, which it probably originally was—a most natural building to be erected by a Norman bishop planted ten years after the Conquest in the midst of a possibly hostile Saxon city. Its technique suggests an early date and it was probably Gundulf's first building.¹ The writer holds that its position was fixed and co-ordinated with that of the church, as shown on the accompanying plan.

F. 'Before the new church was begun, and probably soon after Gundulf's consecration, there was built to the east of the old church (i.e. the small Saxon building) a strong and massive tower. . . . The ruin still remains on the north side of the present church. . . . That the tower was built before the church is proved by the existence of a tall, narrow window (now blocked) in each side of the ground story, two of which became useless when the church was erected' (Hope, Arch. Cant. xxiii, 201).

We are here asked to believe that the experienced builders Lanfranc and Gundulf immediately before erecting their church, of which the proposed plan must have been known, proceeded to build a tower which hampered the planning of the church vitally (see paragraph J below), and incidentally, had half its own lighting blocked. It is shown on the accompanying plan that the adoption of a normal building leaves ample light for these windows. It is, however, fair to point out that Sir Wm. Hope's plan does not produce quite such a radical blocking as his text suggests.

G. 'That the tower was built in Gundulf's time is evident from its character, but the object of it is somewhat doubtful. Primarily it may have been raised for defensive purposes or as a treasury or record tower, but there is documentary proof that it was at an early date used as a campanile. Thus Prior Reginald, who died in 1154, is said to have "made two bells and placed them in the greater tower"' (Arch. Cant. xxiii, 201).

H. 'We next find that Thalebot the Sacrist made . . . a great bell. Again we have the account of the making of a bell called "Bretun" by Ralph de Ros, sacrist and afterwards Prior. Both "Thalebot" and "Bretun" were hung in the greater tower, for the Custumale Roffense (c. 1305) directs the servants of the church to strike three blows "inter cenam in turri majori de majori signo vel de Bretun vel de Thalebot" on principal feasts' (ibid, p. 202).

These two passages, the first referring to a period about 1150 and the latter to the extreme end of the twelfth

¹ See note at end of paper.

century (i.e. 73 years and 120 years respectively after Gundulf's foundation), introduce the problem of the 'greater' and the 'lesser' towers. In this connection, Sir Wm. Hope says :

I. 'Since there was a greater tower there must have been a lesser, reference to which also occurs in the *Customale*, in the Instructions for the Commemoration of Benefactors, where for Odo, bishop of Bayeux and others, there is ordered "*signum grossum, unum cum ceteris in parvi turri*"'¹ (Arch. Cant. xxiii, p. 203).

'This lesser tower stood on the east side of the south transept. That the major turris and parva turris were Gundulf's two towers is clear from the fact that, as will appear in its place, there was no central or other tower until the middle of the fourteenth century' (ibid.).

J. 'The east side of each wing of the transept did not open into an apse as was often the case, for on the north was the "greater tower" standing in the way, and to balance this, as it were, the "little tower" was built on the south, the north and west walls of which formed the south quire aisle wall, and east wall of the transept respectively . . . its former existence and dimensions are further proved by the existing foundations of its east and south sides, which were fully traced and examined by Mr. Irvine The documentary evidence of its existence has already been cited' (Arch. Cant. xxiii, p. 210).

In the above passages it will be seen that Sir Wm. Hope denies any presence of a central tower throughout the twelfth and thirteenth centuries. This carries with it the conclusion that the old north tower is the 'greater,' and the deduction of the 'lesser' in the angle of the choir and south transept, where the presence of it—deliberately put there—again hampers the design. It may at once be pointed out that the possible presence of a normal crossing and central tower would relieve us of the whole of these totally unnecessary difficulties. The bells mentioned would in this case be hung in the central tower, and the 'signum grossum' displayed to the memory of the benefactors, would be placed on the north tower where it would be visible to the whole of Rochester, instead of in the most secluded position in the convent, viz. the angle of choir and south transept. As regards the proofs of its existence founded on Mr. Irvine's discoveries: that these wall foundations were uncovered by Mr. Irvine there is no doubt whatsoever—that they were tower foundations is extremely unlikely, as they show no sign of Norman tower technique, viz. squaring the lay-out, and thickening of the walls.

¹ Thorpe, *Customale Roffense*, 31.

Here, as Sir Wm. Hope's plan shows, not one of the four walls is increased in thickness, none showing more than 4 ft. Moreover, though called the 'lesser' tower, the area assigned to it by Mr. Irvine and Sir Wm. Hope measures 19 ft. by nearly 17 ft. internally, whereas the north tower only exceeds these measurements in one direction, being 19 ft. square, and yet its walls are 7 ft. thick. In addition, these walls of Mr. Irvine's demand no abnormal explanation—the writer believes them to be those of an open court for the lighting of the apse of the south transept, forming a natural junction between Ernulf's western claustral range (with which this building was in exact alignment) and the original aisle wall, before the aisle was widened. If the hypothesis of the normal plan be assumed, further discussion of the 'lesser' tower on the south, and its position, hampering the design of the south transept (*par ƿ*), may be at once dismissed, as the north tower falls into position as the 'lesser' and the central tower of the normal plan becomes the 'greater.' This brings us to the discussion of the transept and crossing.

Sir Wm. Hope says :

K. 'Of the transepts there is nothing left above ground, but when the gable of the present transept was underpinned in 1872 the foundations of the east and south walls of the older one were met with . . .'

He here obviously means by 'older' the Gundulfian transept, but, as the present transept is that built towards the end of the thirteenth century, any rebuilding or enlargement of the transept under Ernulf, or immediately post-Ernulf, or after either of the fires of 1137 and 1179 would have produced 'older' foundations at this point. Indeed, Sir Wm. Hope classifies on his detailed plan the eastern part of the southern wall of the transept on its outer side (the exact position which is important in this discussion), as 'repairs after the fire of 1179.'

L. ' . . . They' (the foundations mentioned above) 'showed that the first transept was as long as the existing one, namely 120 feet, but its width could not have exceeded 15 feet, a dimension fixed by the discovery of the footings of the pilaster buttresses that clasped the south-west angle. There is also still to be seen in the wall above a straight joint with tufa quoin stones, which apparently pertains to a later rebuilding, but previous to the widening of the transept to its present dimensions.'¹

¹ Passages K and L, *Arch. Cant.* xxiii, pp. 209 and 210.

The joint mentioned above is not a straight joint—it is a dovetail repair joint caused probably by the tear-away of a pilaster buttress from the south wall, the alternate bondings being refilled with stones flush with the present wall. Moreover, the upper stones only are tufa, the lower part being of Caen stone. It, therefore, does not suggest an eleventh-century origin, but a structure of the twelfth century (of mixed, partially re-used material), which it probably is (see Canon Livett on materials in this church, *Arch. Cant.*, xxi, 39). The footing below, mentioned by Mr. Irvine, evidently carried this buttress, but he was of opinion that the wall turned northwards at this angle and thus gave a transept of the astounding dimensions of 120 ft. by 15 ft. The only proof which would have justified such a conclusion would have been to demonstrate a wall of competent size running northward from this point under the transept floor, or a corresponding wall and angle in the north transept. It is evident that Mr. Irvine did not do this, as he would certainly have put forward the fact to prove his case. It may be fairly said that the evidence put forward is entirely insufficient to justify such an important conclusion. It is noticeable that neither Sir Wm. Hope nor Mr. Irvine suggests that there was any reason to prevent the transept from being carried westward where the ground was quite unencumbered, and where it now stands. This left space for seven bays in the nave to cover the cloister, without disturbing the Saxon church, and room for the eighth which was added when that building was destroyed—in fact the nave as it at present stands.

The case for the compulsorily narrow transept, therefore, seems entirely lacking in satisfactory proof.

The danger of such a radical conclusion on one small piece of rather indeterminate evidence is shown on consideration of the number of times this area must have been disturbed. Firstly, Gundulf's eastern claustral range was attached here and considerable changes must have taken place at its removal when Ernulf's cloister was built, or shortly after. Secondly, alterations and repairs after one fire have been suggested and may have been needed after both.

M. 'Mr. Irvine is of opinion that after the fire of 1179 it became necessary to rebuild Gundulf's transepts and that the work was carried out by William of Sens or one of his school' (*Arch. Cant.* xxiii, p. 228).

The evidence adduced is based on certain fragments of mouldings taken out of the south transept in 1872, now preserved in the crypt, which resemble work at Canterbury between 1175 and 1179. Thirdly, the great rebuild, c. 1280, must have disturbed the whole of this area, and may well have necessitated alterations which produced the described phenomena.

Finally, and most important of all, the axis of the present south transept wall and the general dimensions of the church strongly suggest that this wall never coincided with Gundulf's south transept wall, which probably lay inside it. This will be discussed later.

The correctness of Sir Wm. Hope's conception of Gundulf's crossing obviously stands or falls with the acceptance or refusal of the theory of the narrow transept. He is content with a flat denial of the presence of a tower.

N. '*There was no tower over the junction of the nave and transepts*' (Arch. Cant. xxiii, 203).

Again :

'*No central tower existed until 1343*' (Archaeologia xlix).

He suggests that this theoretical absence of a tower is responsible for the narrow transept.

O. '*This remarkable narrowness of the transept, which is without parallel in a church of such a scale, is perhaps to be explained by the absence of a tower or lantern over the crossing*' (Arch. Cant. xxiii, 210).

On the strength of this, he adds a bay to the nave, beyond its present limits eastward, and for all of these phenomena adduces no proof beyond that of the buttress footing and repaired quoin on the face of the south transept which was discussed above. Surely a very heavy weight of proof to be borne by one very indeterminate factor.

In proof of the reverse of this we have definite evidence that at least the eastern arch, between transept and presbytery, was of a type capable of bearing a tower in the middle of the twelfth century.

P. '*... in 1872 certain remains were brought to light beneath the responds of the arch between the quire and tower ... on the north side, the remains are those of a broad pilaster respond, 3 ft. 9½ in. wide and of 21 in. projection, with re-entering angles. These may belong to a reconstruction after one of the fires ...*' (Arch. Cant. xxiii, 228, with Mr. Irvine's drawings, p. 230).

In other words, this is the base of a respond, of the same size as the existing one, which rests upon it, carrying the present eastern arch of the tower. This base, then, was of a size to carry a central tower arch also, and must have been previous to 1227, as the base of that period rests upon it. It is of a plain type which could have been used at any date between 1135 and 1200 and proves that a radical reconstruction must have taken place at this point during the latter two-thirds of the twelfth century, and that this arch at least was capable of a central tower. The date of this is important in connection with the crypt, as will be shown later.

Considering the above data it appears that the only proof of the absence of a twelfth-century central tower lies in a flat denial of its existence, based upon the supposed narrowness of the transept, the adduced proof of which may be, as already pointed out, entirely fallacious. On the other hand, we have proof of an eastern arch of late Norman or Transitional date of a type suitable for a full-sized central tower, while the western piers of the present tower contain, according to Sir Wm. Hope's plans, Norman cores, and no proof is advanced against their being those of the western piers of a twelfth-century tower. Thus, what evidence there is supports the theory of a twelfth-century central tower, and the comparative construction of other churches of the period lends corroboration almost amounting to a certainty. It is to be noted that the proofs suggested are those of a tower of mid or late twelfth-century date, which is on a different axis from Gundulf's nave and on a wider basis. The writer believes that the Gundulfian crossing occupied a slightly different position, as will be shown on the plan, and was destroyed, probably after one of the fires, to make room for this later one.

This concludes the analysis of the evidence suggesting abnormality from a cramped site. This brings us to

III. *The form of termination of the existing Norman crypt*

Up to the time of this paper being written, the west end of the existing crypt, comprising two bays, had always been described, and, as far as the writer's knowledge goes, accepted without criticism, as Gundulf's construction. Its

eastern termination was first discovered in 1853. Of this Sir Wm. Hope says:

Q. 'The question as to how and where this church ended eastwards was first answered by Mr. Arthur Ashpitel who in 1853 found by boring, "the foundations of a huge rubble wall . . . upwards of 8 ft. thick" crossing the crypt at such a distance from its west wall as to show that it was four bays long. In 1881, by permission of Dean Scott, I was able to test this discovery by excavation, when I ascertained, what had been overlooked by Mr. Ashpitel, that the cross wall extended also across the aisles. Further search for a possible apse east of it brought to light in its stead a small rectangular chapel, about 6½ ft. long by 9 ft. wide, which projected from the middle of the front' (Arch. Cant. xxiii, 204).

'The western half of the crypt still remains almost in its original state, though much blocked up by modern brick walls and the organ bellows.¹ The eastern half was removed when the Early English extension was added' (ibid. 205).

Sir Wm. Hope places this crypt, thus completed, upon his plan as the east end of Gundulf's church. As regards its general conditions, the main material used in this crypt is tufa, with some firestone from Godstone or Reigate. A very early use of the latter material apparently occurs at Westminster in the bases of the Confessor's church,² and also in the altar of the Pyx Chapel.³ In the latter case, however, the ritual fittings are probably of the date of Henry III's reconstruction when firestone was in general use. Elsewhere this material appears to occur only at a much later date than the work of the Confessor or Gundulf. The remaining detached columns in the Rochester crypt are of Barnack stone, as are most of the caps.

The arguments for and against this being Gundulf's eleventh-century crypt are best tabulated:

I. IN SUPPORT

(1) *The tradition that this is Gundulf's.* This is of very little value, as it is doubtful if it has an early origin, and it may only date from Mr. Ashpitel's and Sir Wm. Hope's classification.

(2) *Its archaic appearance and the free use of tufa,* which Canon Livett has pointed out as Gundulf's principal

¹ This has now (1926) been cleared for some time, and the organ bellows have been placed in the north aisle of the crypt.

² Mr. A. W. Clapham, F.S.A.

³ Canon Livett, F.S.A.

material. Sir Wm. Hope has, however, pointed out (*Archaeologia*, xlix) that the tufa may have been re-used. It is certain that large quantities must have been available at any time after Ernulf's work, owing to the destruction of Gundulf's early cloister. Also examples of its re-employment occur in all later periods in the building.

(3) *The absence of the discovery of any other eastern termination.* It may be pointed out with reference to this that no exploration has ever been carried out where the proofs of a normal church would be found.

II. AGAINST THIS BEING GUNDULF'S WORK

(1) *Its plan.* This is an enormously strong argument, as no such plan, or plan approaching it, appears in England for at least two-thirds of a century. It becomes possible and even probable, however, in the third quarter of the twelfth century.

(2) *Materials employed.* Firestone. This material usually appears in the Medway area, at the earliest, in the Transitional period, and becomes common and almost exclusive in early English work. In any other situation around the Medway valley it would certainly have been assigned to the twelfth century (see Canon Livett in *Arch. Cant.* xxi, 39).

Barnack. The use of Barnack is very rare in this diocese, and the distance of the quarries renders it a very unlikely material at Gundulf's date. The quarries were from 1069 onwards (when Waltheof gave them to the monks) the property of Peterborough, where Ernulf became Abbot in 1107, coming to Rochester as Bishop in 1114 and living until 1124. The sequence suggests strongly that the introduction to the Barnack quarries came through him.

(3) *Its loftiness* and comparative slenderness of proportion as compared with most early crypt work. Also the fact that the capitals, though archaic from their roughness, are not of typical eleventh-century form.¹

(4) *Its different foundations from those of Gundulf's*

¹ They differ markedly from the cushion caps of Canterbury, Worcester, Winchester, and though rough and massive, are not so heavy in form.

known work. Sir Wm. Hope describes them as different, and superior. He describes them thus in the other areas :

R. 'All round the church wherever the foundations of the earliest Norman work have been met with they are formed of (1) about a foot in thickness of gravel and (2) an upper layer of small chalk laid in a shallow trench with a footing course of Kentish ragstone' (Arch. Cant. xxiii, 211).

In the excavation of the east end, he says :

'The foundations uncovered by me in the crypt were of somewhat better character, being composed of flint and small chalk, with some mortar and no gravel. They were laid in dark brown earth with oyster shells in it' (ibid.).

From these passages it will be seen that the foundations of Gundulf's acknowledged work in the nave and those of the present Norman crypt are entirely different. The obvious inference is that the structures are of different dates, the superior foundations marking the later work.

(5) *The difference in long axis* between Gundulf's nave and this crypt. No writer has dealt with the change of axis in this church, which is a factor of great importance. Sir Wm. Hope makes one small reference which records its appearance at one point but beyond this entirely ignores it. The reference made is as follows :

S. 'The lower part of the outer wall of the north aisle of the quire, if it be not part of Gundulf's reconstruction, may be one of the works done after the fire of 1137 . . . as I ascertained by excavation, it stands upon the base of Gundulf's wall, from which it differs in plane and thickness.'¹

'In plane' here must refer to its divergence in line, and this is the only reference to axial change in the church. This important change takes place at the second nave pier from the crossing, on the south side. The arcade here diverges southward as it goes east and by the time it reaches the crossing raises the square of the latter to 30 ft., the width of the present transept. This clearly suggests and practically proves that when this alteration was made the square of the crossing and the width of the transept were increased from a smaller dimension previously existing. On reaching the south-west crossing pier the line eastward is adjusted to the new width, and the north and south crossing, the solid walls of the choir, and the crypt are adjusted and laid to these new lines, the axis of the crypt

¹ Arch. Cant. xxiii, 228.

thus diverging southward from that of Gundulf's known nave axis. Moreover, the south wall of the crypt is laid parallel to the north side of Ernulf's cloister, distinctly suggesting that it was laid down when that cloister was already a known quantity in design, and probably in completion. This suffices for the suggestion that difference of axis predicates difference of date in nave and crypt, but an important corollary may be incidentally mentioned here. The whole of the work involved in this new laying out has now been clothed with Early English work, with the exception of the crypt, but, as the crypt is an integral part of it, it follows that the original laying out of this changed plan must have been contemporary with the crypt, that is, at the latest, of the twelfth century, and not of the thirteenth, as has hitherto been held. This is supported by the rebuilding of the three east bays of the north nave aisle wall, which are adjusted to the new axis, and are undisputed twelfth century.¹ They would be damaged by the adjustment of the north transept to the new axis, and were probably rebuilt as a consequence. This sequence is also supported by Mr. Irvine :

T. 'Mr. Irvine is of opinion that after the fire of 1179 it became necessary to rebuild Gundulf's transepts, and that the work was carried out by William of Sens or one of his school' (Arch. Cant. xxiii, 228).

Sir Wm. Hope holds, however, that the 15-foot transept was still retained, quoting the repair joint in the south transept, the validity of which has already been discussed (see paragraph L).

(6) *The fact that the steps of the lowest floor, excavated and described by Mr. Irvine, would suit better a shorter church as suggested by the writer in the accompanying plan. Mr. Irvine found three medieval floors in the western part of the area between the solid walls (now the choir). The one described is the lowest and, therefore, probably Gundulf's.*

U. 'During the repairs of 1872 the plaster floor of the western half of Gundulf's presbytery was partly laid open . . . From the junction of this floor with the crypt wall where it was 5 ft. 4 in. below the present floor it gradually sloped westward for nearly 17 ft. as far as a step, where it was six inches lower. It thence continued level for about 11½ ft. to another 6 in. step.

¹ The corresponding wall on the south is unfortunately lost, owing to the erection of the Lady Chapel.

This brought it down to the level of the nave floor, which was 6 ft. 7 in. below the present quire floor, and 1 ft. 8 in. below the floor of the present crossing' (Ibid, p. 208).

These steps have been placed on the plan and the reader may decide as to the value of their evidence. If the choir was placed in the crossing and east bays of the nave, they present no insuperable obstacle to either theory, and the writer does not desire to labour the point. It is, however, clear that one of the higher floors would much better accommodate itself to the steep rise necessary to reach the floor over the present crypt. Mr. Irvine's section of these floors and steps will be found in *Archaeologia* xlix. The description of the higher floors had perhaps better be given (*Arch. Cant.*, xxiii, p. 218) :

V. '... a second floor had been subsequently laid above what seems to be Gundulf's, at a uniform level of 2 ft. above its western part. If, as is probable, this be of Ernulf's time, it would point to a complete reconstruction and re-arrangement of the quire.'

A footnote states that this floor did not cover the sides of the area which the floor of choir stalls would occupy, and that the part uncovered was on one level throughout. The writer contends that this floor would admirably suit the period of the crypt construction, the extended square end allowing of the choir being moved further east, which had evidently been the case on this floor level. The third floor lay 1 ft. 10 in. above the last and 2 ft. 9 in. below the present floor. Sir Wm. Hope assigns this to possible reconstruction after one of the fires.

(7) *The negative evidence*, that the area where the termination of the typical shorter, eleventh-century church would lie, has never been explored. This needs no comment, except that the depth of the present crypt has most probably destroyed any evidence which existed within its limits.

This concludes the consideration of the evidence as regards the crypt. It may fairly be said that the weight of it militates strongly against the present western crypt being a structure of Gundulf's period, and thus takes its place in the general argument advanced in this paper.

It is perhaps desirable at this point to suggest a sequence of construction in the church which will harmonise with the existing work and meet the suggestions set forth above.

It has been pointed out that the writer believes the first work to have been the setting out of a normal eleventh-century church by Bishop Gundulf, having connections with the North Tower, and planned to terminate westward in the old foundations underlying the present west front. On the accession of Bishop Ernulf the cloister attached to this was destroyed, and a new cloister erected to the east, instead of to the west, of its transept. This was erected on an axis which diverged slightly to south of the original one. It is probable that Ernulf intended to follow this by the erection of a new presbytery¹ built parallel to it, on an increase of scale which involved the widening of the crossing, and the diverting southwards of the two eastern bays of the nave to accomplish this. He probably collected material and may have commenced the work and partially completed it, the still existing portions of his work being the Norman portion of the crypt and the three eastern bays of the north aisle wall in the nave, together with work in the nave arcades. It is probable that the work was interrupted by the death of Ernulf and very half-heartedly carried on by his successor, Bishop John, who is described as beginning to do good deeds but not persevering with them. Then came the fire of 1137 and it is probable that in the repairs following this the square east end of the crypt, discovered by Mr. Ashpitel and Sir Wm. Hope, was erected. The foundations of this may actually cover an earlier design intended by Ernulf. At this same time repairs and recasing in the nave culminated in the present west front, about the middle of the century. The fire of 1179, according to Mr. Irvine, resulted in extensive repairs in the transepts, and finally came the new Early English extension at the east end, followed by reconstruction and recasing of the work west of this as far as the second pier of the nave, which has concealed from us almost all evidence of previous changes, resulting, with the addition of the Lady Chapel, in the church as we now know it.

Up to this point the writer has concentrated upon an attempted disproof of the arguments advanced in support of the necessity for the production by Bishop Gundulf of an abnormal plan. The result may be summarised thus :

¹ Sir Wm. Hope suggests this, *Arch. Cant.* xxiii, p. 217-218.

That the evidence adduced by the observations of Sir Wm. Hope and Mr. I. T. Irvine is inadequate to prove what they assert, viz. :

- A. Cramping of site and consequent abnormal plan.
- B. The absence of an early central tower over the crossing.
- C. The existence of an abnormally narrow transept.
- D. The presence of a southern tower in the position stated.

This is obviously an attempt at destructive criticism only, and it remains to be seen if anything constructive can be put in its place. The mere production of a plan is insufficient—it must meet two definite requirements, viz. it must be a typical plan of the period, in scale and proportions, and it must accurately coincide with the existing work of Gundulf in the nave of the present church, and in addition must be so related to the existing later work that the architectural development of the church is clear.

In the immediately post-Conquest period, with which we are here concerned, two forms of plan were in use, the ambulatory plan emanating from St. Martin de Tours, and the central apse with choir aisles terminated on the level of its chord.¹ The two forms appear in England, as far as present discovery goes, in almost exactly even numbers, the former preponderating in the west, and the latter in the east. Lanfranc and Gundulf were associated with the latter form at St. Etienne, Caen, and at Canterbury, and thus, if Gundulf produced a normal plan, this would probably be his model, and it has been selected as such for our present purpose. Before proceeding to reconstruction, however, search was made for a church of this plan, of equal importance and parallel date with Rochester as a proof that such a plan could be applied to this site. Old Sarum exactly meets these requirements, and on applying its early plan to the area of Gundulf's known limits at Rochester, it was found that its nave and north transept, with the apse east of the latter, almost exactly fit the space between the east end of the small Saxon church at Rochester and the west

¹ This form exists at Cerisy-la-Forêt, Lessay, St. Gabriel, St. Nicholas Caen, Montivilliers. Many others have been excavated. Formerly, as stated, at St. Etienne and Canterbury Christ Church.

face of the old north tower. As the nave bay at Rochester is slightly smaller than that at Sarum it became positive fact that a normal cathedral church¹ of this period could be placed in this area and the theory of the cramped site was finally disposed of. It is to be noted here that Sarum had not been excavated when Sir Wm. Hope produced his paper on Rochester. He quotes the later square end there as the early termination (*Archaeologia* xlix, 325) which, the writer contends, is exactly what he has done at Rochester.

It is, however, Canterbury which, from Lanfranc's influence and Gundulf's own associations, is the most probable model for the latter's new buildings. It is obvious at a glance that the Canterbury plan is on a larger scale than that of Rochester and, if employed by Gundulf, must have been reduced in scale. It is fortunate, however, that sufficient data remain to fix the necessary proportionate reduction, within a very small fraction. The two plans have been collated, and after a few experiments it became clear that a $\frac{2}{3}$ scale of Canterbury, that is a reduction by one-fifth, would give the Rochester measurements fairly accurately, if that plan was employed here.

The Canterbury plan then, reduced to this scale, has been superimposed upon that of the surviving work at Rochester, and the result is embodied in the plan accompanying this article.²

The portions of existing work at Rochester to be embodied in this reconstruction, exclusive of the crypt, which is taken as being later work for reasons already explained, are as follows on ground plan: (1) Five bays of the south nave arcade, the third to the seventh inclusive,³ with the south aisle wall from its junction with the Lady Chapel to slightly west of the westernmost pier. (2) The North Tower. (3) The early foundations identified by Mr. Irvine of the three eastern bays of the north nave aisle wall.⁴ This was found when underpinning. Sir Wm.

¹ The See was transferred to Sarum in 1075, two years before the commencement of Gundulf's building at Rochester.

² The lengths of the naves do not collate, as, either from Canterbury being a more important church, or from Rochester being limited by the position of the Saxon church, Canterbury was given an extra bay, if the position of the later piers be the same as

that of the earlier ones. It is, however, possible that the towered west front at Canterbury was a slightly later addition, as this is just the period at which such additions took place in a number of instances.

³ Recased on the nave side.

⁴ The foundations of the three corresponding nave piers would be laid at the same time.

Hope includes the wall up to the string course, but the axis of this has been altered, and the present wall can only partially overlie the original foundation, and its faces at least must belong to the later rebuild, though the core may remain. (4) In addition, the completion of the west end by the early front (with its aisle wall junctions), which now underlies the existing west front, is a known feature and was, as already stated, planned and described by Canon Livett. This was slightly later work than the rest, but Canon Livett assigns it to a period *c.* 1100, within the lifetime of Gundulf, and it was almost certainly a part of the original design, even if delayed in execution. (5) A small cut-down portion of the wall of the north choir aisle which appears in the angle between the north transept and the later choir aisle wall, the latter being built upon it, but upon the later axis, thus leaving the outer portion of the older wall exposed, in a rough condition. This lies in the area between the old North Tower and the north choir aisle wall, and the condition of affairs here is of exceptional interest and merits description, which it has apparently never received, with the exception of Sir Wm. Hope's mention of the relations of the earlier and later choir aisle walls (see paragraph S), and of the windows in them. Two large buttresses project from the aisle wall face here, the westernmost of which has a torn away face. It is in the space between this, the east wall of the transept, and the old tower that the interest lies, an area of roughly 11 ft. from east to west by 8 ft. from north to south. This area is bounded on the south by the choir aisle wall already mentioned, with the earlier wall appearing at its base. The fragment of the latter which is exposed, suggests a curve to northward at its extremity and its stones appear to be laid to resist a thrust from this side. There is so little exposed, that it is perhaps safer not to theorise on its functions.

It is broken off with a rough fracture against the buttress at its eastern end and on its north face. Its top is partially capped with small roofing stones.¹ The area is bounded on the north by the south-west buttress and adjoining wall of the old tower.

On the west lies the east wall of the transept, at its

¹ Described below.

junction with the aisle wall, and projecting from this east transept wall is the outer angle of the south-east corner of the narrow chapel which lies between the present transept and the west wall of the old tower. A narrow lancet with tufa jambs formerly pierced the transept wall between this chapel angle and the aisle wall. It is now blocked, but the quoins remain. All this work is in original condition and unrestored, until it rises to the level of the Early English clerestory of the transept, where it has been largely recased.

Beneath the eastern end of the area above described, runs, with a double curve, the narrow vaulted passage which forms a communication between the north choir aisle of the church and the lowest storey of the old tower. This passage leaves the tower with a smooth curve, as shown on the plan, a curve which is quite unnecessary from a point of view of construction, as it actually occupies at its north end a part of the tower wall. The writer suggests that the curve in the passage at this point is due to its west wall being moulded round that of the Norman apse of the transept with which, if present, it would be in close relation.

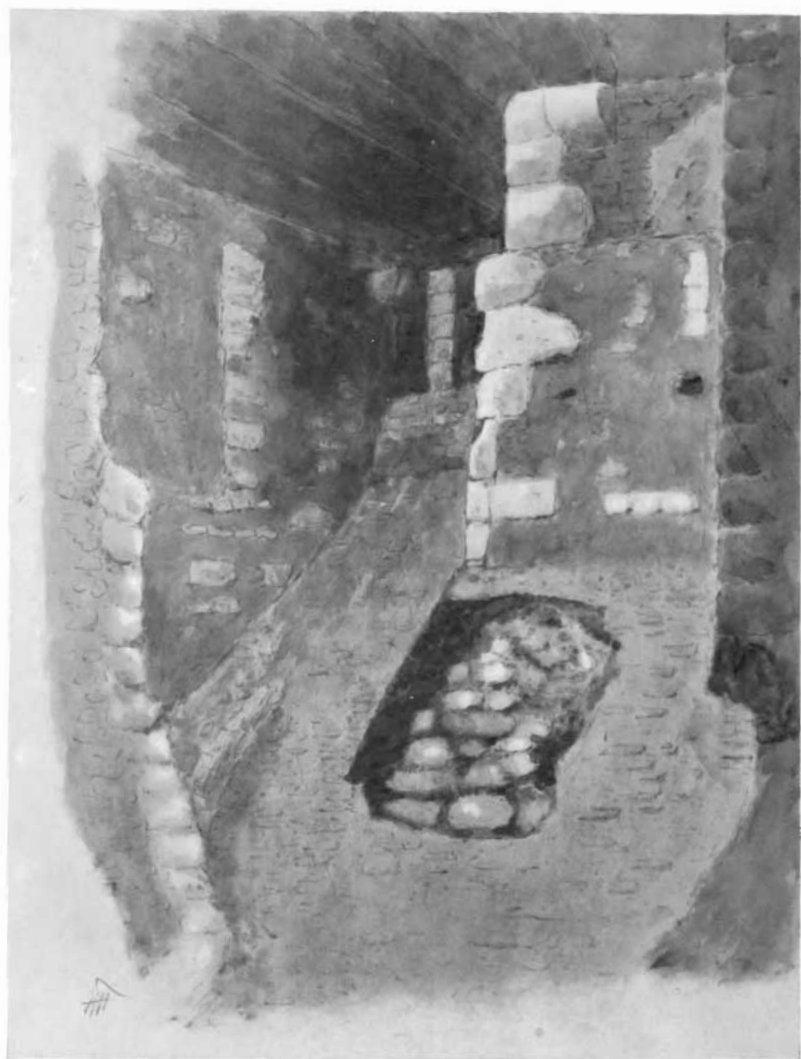
To return to the upper space, the whole of the area between the vaulting of the lower passage, the east transept wall, the early broken wall on the choir aisle side, and the north tower, has been filled in with heavy rubble of large pieces of apparently Kentish rag, and roofed with a long raking slope, rising at its apex against the transept wall to a height of about 19 ft. above the level of the floor of the choir aisle. This roof is formed of flat blocks, of which some were certainly Caen stone, the remainder of rag. When the writer first examined it, it presented the appearance of a slope of loose rubbish, but on cleaning it down, the overlaps of this roofing came clearly into view. A hole at the top just beneath the angle of the transept chapel showed some of the rubble filling exposed, and the Cathedral architect, Mr. Farley Cobb, while examining this buttress kindly allowed a little more removal of loose material which revealed a very curious fact. The angle quoins of the chapel terminated just below the level of this roof, and, as far as could be seen, were commenced at this point on the top of the rubble, this junction being formerly sealed in by the roof. This takes place at a level of about

14 ft. above the choir aisle floor. The question arises—what can have been the constructive reasons here? It is probable that this roof and the rubble beneath it conceal an entire solution of the east side of the early Norman transept. It certainly masks an elevation of some 15 ft. of the wall of Gundulf's north choir aisle wall, and probably the spring of the apsidal chapel from it, and upon the junction of these were erected the transept wall and choir aisle wall, as they now stand, when the transept was first enlarged eastward. The inner face was then built within the transept, on the lines it now occupies, and there remained only the outer south-east angle of the new chapel to construct, as the old tower provided its east wall. The roof of the apse having been destroyed, this space was filled with the heavy rubble of which we now see the top, the chapel angle quoins were placed upon it, and the whole space, from the transept wall to the east side of the passage, rainproofed by the construction of the roof we now see, raking up against the wall of the transept. At a later date chambers were erected between the old tower and the church, but they probably left the work we have been discussing untouched. If these considerations be correct, there is probably a considerable core of early Norman work still standing in this angle, as reference to the plan will show. A large scale diagram of the structures in the vertical and horizontal planes in this area has been attached.¹

(6) The west side of the north transept probably contains an early core joining the aisle wall.

(7) As regards the solid walls at the sides of the presbytery. The northern one retains the old line and probably in consequence contains an original core refaced. The alteration of axis threw most of the southern one out of line and if any core is retained it must be a very narrow one, with a bonded straight joint face on the south. It is to be noted that, if the writer's contentions be correct, these walls were extended further eastward at the rebuilding. They would still be Norman but of a later date. They, with the transepts, were later still clothed in Early English

¹ These are not pure sections, as some of the structures are performed in different planes. They aim at showing general relations.



SPACE BETWEEN NORTH TOWER AND NORTH CHOIR AISLE, LOOKING WEST

The battering rubble foundations of the Chapel angle appears in the breach through the slanting roof.

work and to avoid confusion have been shown as such in the plan, the possible remaining early cores being marked.

The above factors have been charted and taken into consideration for the purposes of the present article. It will be seen to what extent they harmonise with the existent work at Rochester. It has already been pointed out that a new theoretical plan must agree with that of the later developments in the church, and it will probably be acknowledged that this condition could hardly be better met than in the present instance. The throwing south of the axis rendered it possible for the new church to be almost entirely constructed, before disturbing in any way the north choir aisle and presbytery of the old one. The point need not be laboured as it is obvious at a glance on the plan.

Of the conjectural plan produced by the methods and considerations employed above, it may be said that it conforms rigidly to the form and proportional measurements of a typical monastic church of the period. These proportional measurements are a very definite fact, though attention has not been sufficiently directed to them in print up to the present date. The writer hopes to publish some notes upon them at a later date, as they are too complex for mention in a paper of this nature.

As regards the general conditions of the plan, as it is of necessity complicated, the lines have been inserted in the simplest way possible, i.e. on the plain lines of the walls, avoiding the insertion of conjectural buttressing and thus reducing confusing lines. The normal buttressing doubtless existed and may be supplied by the mind of the reader. The 'straight joint' on which the whole discussion of the narrow transept rests has been prominently marked in the south transept wall, the conjectural narrow transept lying to east of this. Sir Wm. Hope's 'lesser' or southern tower he placed in the angle east of the present south transept, between it and the wall of the choir aisle, before the latter was widened. His full plan of the abnormal church will be found in *Arch. Cant.* xxiii.

The writer hopes that the above notes may result in a reconsideration of the evidence of the planning of this important and interesting church, thus bringing it into line with the highly conservative but steadily progressive

sequence of construction which manifests itself in all other churches of the period of which we have definite evidence. Rochester has hitherto been an awkward break in this sequence, and the writer ventures the opinion that we cannot better honour the memory of one of the best prelates who ever ruled an English See than by acquitting Bishop Gundulf of the designing of the hampered church with which he has hitherto been credited.

In conclusion, the writer desires to express his most cordial thanks to the Society of Antiquaries of London for permission to use the plans of the crypt from Sir Wm. Hope's article in *Archaeologia* xlix and to Canon Greville M. Livett, F.S.A., for supplying him with the plans of the destroyed western front and its nave connexions, the small Saxon church and the 'lesser tower.'

Note re North Tower.—This tower has always been assigned to Gundulf, and it now bears his name, though how long this has been the case is unknown. It was known in the fifteenth century as 'three bell steeple,' the central tower being then known as 'six bell steeple.' We have, however, no absolute evidence of its definite date—it is not mentioned in the *Life of Gundulf* in the account of his buildings, and first appears in the mention of the greater and lesser towers, one of which it certainly must have been, under Prior Reginald, about 1150. As has been said its technique suggests an early date, but certain points about it might be used controversially. In particular certain re-used fragments, apparently part of the general masonry of its southern face, and set with the oldest type of mortar found in the structure, are evidently of twelfth-century date, one being a fragment of honeysuckle ornament, certainly not much earlier than 1130. These are not in a position where the blocking of an aperture was probable, and are certainly set with the old mortar. Mr. Ashpitel mentions a large arch in this southern side which is not now traceable.