

Plate I
Norwich Cathedral Nave looking East

## SHORTER NOTICES <br> THE ROMANESQUE PIERS OF NORWICH CATHEDRAL by E. C. Fernie, B.A., F.S.A.

Norwich Cathedral contains a unique collection of eleventh century pier forms. The following paper attempts firstly a description of these objects and secondly a discussion of the functions of the different types.

The main vessel of the Cathedral is supported on forty two piers, four in the curve of the apse, two at the chord, six in the presbytery, four at the crossing, and twenty six in the nave. (Since there is little difference between the north and south arcades for clarity of reference I will restrict myself to the north side as in figure 1). ${ }^{1}$ A major-minor pattern runs through the whole sequence, with very large piers at the apse chord and the crossing, and smaller alternating major and minor piers in nave and presbytery. They are divisible into three basic types, the major form and the compound and cylindrical minor forms.

The major pier consists of a square on the thickness of the arcade wall, with attached pilasters, half shafts and nook shafts. ${ }^{2}$ The crossing pier has the same core with more and deeper additions. The minor pier consists of a cylinder with attached pilasters, half shafts and nook shafts which allow the curve of the cylinder to read on the east and west faces. Its mass is smaller than that of the major pier, there is only one shaft on the nave face instead of two, and no pilaster between that shaft and the core. The piers in the apse are a variant of this type, wedge-shaped and thinned down to accommodate the curve and the smaller intercolumniation, and similarly though surprisingly the pier on the chord of the apse also has the sunken cylinder on its east and west faces. The third and fifth piers in the nave are another variant of the minor pier, being simply the central cylinder without attachments. At present only the fifth is visible, the third having been encased so as to look like a standard minor pier. The existence of the cylinder within is indicated by the form of the capital facing the aisle, which is single like that on pier five not double as on all the other piers, by the lack of a pilaster on the aisle face and by the setting of the centre of the pier in towards the nave as with pier five. The point has been corroborated by an excavation of the curved encasing stone beneath which the face of the original cylinder stands revealed.

Why are these different kinds of pier used? The difference between major and minor is both practical and aesthetic. The crossing piers have the greatest load to support and are made to look as if they have. Their design is refined so as to create a crossing which though square still stresses the greater importance of the axis of the nave and presbytery over that of the transept. This is achieved by making the east-west extensions larger than those to the north and south, by adorning the east-west faces (towards the crossing, not the aisle) with three thin shafts and the north-south ones with two thick ones, and thirdly by placing a half shaft on the extension of the east-west face instead of putting a nook shaft in the corner of the crossing (fig. 1a). The alternation of supports in nave and presbytery is aesthetic only, serving to articulate the longitudinal space into readable squares.

The above distinctions seem unambiguous, but two problems remain, namely those concerning the chord pier and the simple cylinders in the nave. The pier
on the chord of the apse is a major one by virtue of its function and position. The massive buttress still discernible on its outer face at tribune level indicates that it supported an arch (fig. 1b) analogous to that on the eastern side of the crossing, which was probably removed when the clearstorey was raised in the fourteenth century. ${ }^{3}$ Its position marks the change from the straight to the curved part of the eastern arm and places it second from the major pier in the presbytery and fourth from the crossing pier. It is also a major pier in terms of its main face, which has a pilaster with a pair of shafts. Given all this one would expect the side faces to have pairs of shafts like the crossing piers or triple shafts like the major piers in the nave, whereas they sport sunken cylinders like the minor piers. The most likely reason for this compromising of the structural and aesthetic expression of the form of the pier is that it must also meet the demands of the extension of the sanctuary west of the apse. In some churches, for instance Tewkesbury Abbey and St. Bartholomew Smithfield and almost without exception in those of the Poitevin region of western France, this definition of liturgical space is stated bluntly by making all the supports east of the crossing columnar, with no alteration and no stressing of the chord. At Norwich the extension of the sanctuary west of the apse is expressed by a reduction in the divisive character of the chord pier. It is possible that the major pier in the presbytery and even the east face of the crossing pier took a similar form but this cannot be ascertained. ${ }^{4}$
The cylindrical piers in the nave are usually explained as a simple change in preference connected with the break between the building programmes of the two bishops who constructed the Cathedral, Herbert and Eborard. For a variety of reasons which it is not necessary to go into here it is believed that Herbert built at least as far as pier three and probably as far as pier five in the ground storey. Thus according to the 'change in preference' theory he must have built the presbytery and the first two bays of the nave to an initial plan, changed his mind, perhaps under the influence of Durham, to the plan with cylindrical piers and continued with this until he stopped building. His successor then abandoned the new design and reverted to the original. ${ }^{5}$ This reconstruction of events is not unlikely given the numerous experiments attempted elsewhere in the building, as in the end bays of the transept arms, or in the nave clearstorey. It is odd however that the two changes, the taking up and the dropping of the cylindrical piers, coincide with the eastern and western limits of the nave sanctuary containing the altar of the Holy Cross and two others (fig. 1). The pulpitum marking the entrance to the choir has been in the third bay of the nave at least since the fifteenth century, the thirteenth century Primum Registrum states that Herbert built 'up to the altar of the Holy Cross', and the archaeological evidence supports the contention that the altar was then either in bay four where it is now or in bay five. ${ }^{6}$ It would thus appear that we have here the same sort of compromise between architectural and liturgical demands as in the eastern arm (fig. 2).

This suggestion is supported by two other pieces of evidence. Firstly as already noted the centres of the cylinders lie some thirteen centimetres in from the centre of the arcade wall, making them more obvious in the nave elevation than they would otherwise have been (p1 1). Secondly this forceful quality is underlined by the spirals carved into their surfaces. This too may be seen as nothing other than a decorative feature but spiral columns in close proximinity to sanctuaries have a special history, beginning with Old St. Peters in Rome. ${ }^{7}$ In the later middle ages it was believed that the spiral columns round the tomb of the Apostle had come


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from the Temple of Solomon in Jerusalem, which explains their appearance in Raphael's cartoon of Peter healing at the gate of the Temple, now in the Victoria and Albert Museum, and probably also their partial re-use by Bernini, both in the fabric of new St. Peters, and as a model for his baldacchino (fig. 3). There is no proof that this august attribution was current before the founding of Norwich Cathedral, but the example of St. Peters itself was prestigious enough, and spiral columns also define sanctuaries in Ernulf's crypt at Canterbury (1096), at Repton (tenth or eleventh century), Deventer (1040) and St. Peter at Utrecht (consecrated 1048), and possibly also at Durham, Waltham, Dunfermline and Orford.


Fig. 3
Treasury of St. Peters, Rome. Colonna Santa; one of the supports from the sanctuary of the fourth century basilica.

The approach used in this article may be called 'synthetic' since it assumes that everything in a structure is as it was intended to be by the original designer unless there is evidence to the contrary, as opposed to the analytical method which tends to assume that changes in form imply changes of intention. It provides a possible explanation for innumerable other examples of 'odd' alternation, from Vignory Abbey in the early eleventh century, to Laon Cathedral in the late twelfth and St. Laurence in Norwich in the fifteenth, as well as for the greater or lesser use of decoration for reasons other than financial or 'developmental'.
${ }^{1}$ The only lost piers or parts of piers are in the presbytery where the arcade was reworked in the late fifteenth century (see D. J. Stewart 'Notes on Norwich Cathedral' Archaeological Journal 32, 1875, 45). The tribune storey however indicates that the piers were of the same basic dimensions as those in the nave, while fragments remaining at the base of pier three (fig. 1) show that the detailed form of at least this minor pier was also the same as in the nave. Similarly although the piers in the apse were refurbished in the nineteenth century the original base courses indicate that the reconstruction is accurate. The survival of these courses is due to the fact that at an undetermined date between the original construction and the reworking of the fifteenth century the floor of the sanctuary was raised, covering the bases. The removal of this addition in the nineteenth century revealed what would otherwise have been destroyed in the fifteenth century. See Stewart, op. cit. p. 42. A. B. Whittingham's plan, which forms the basis of figure 2, will be found in the Archaeological Journal 106, 1949, 86.
${ }^{2}$ For a discussion of the geometrical design underlying all the piers see E. Fernie 'The plan of Norwich Cathedral and the square root of two'. Journal of British Archaeological Association 129, 1976, 77-86.
${ }_{4}^{3}$ Stewart op. cit $\mathrm{p} .36-37$.
${ }^{4}$ There is one other occurrence of a segmental cylinder on a major element, that is the respond at the west end of the nave. This appears to be an experiment in architectural space and nothing to do with liturgical demands. See E. Fernie 'Excavations on the facade of Norwich Cathedral' Norfolk Archaeology 36, 1974, 74-75.
${ }^{5}$ N. Pevsner The Buildings of England: North-East Norfolk and Norwich 1962, p. 219; St. John Hope and W. Bensley, 'Recent discoveries in the Cathedral Church of Norwich' Norfolk Archaeology 14, 1901, 107-8.
${ }^{6}$ See H. W. Saunders The first register of Norwich Cathedral Norfolk Record Society XI, 1939, f. 8 recto, and St. John Hope and Bensley, op. cit. 122-125. My thanks are due to Jane Beckett for her help in elucidating this problem.
${ }^{7}$ See J. B. Ward-Perkins 'The shrine of St. Peter and its twelve spiral columns' Journal of Roman Studies 42, 1952, 21-33.

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## HORSHAM ST. FAITH PRIORY, A FURTHER NOTE By David Sherlock

As a postscript to the article on the priory that appeared in the last issue of Norfolk Archaeology (above, pp. 202-223) this note records the minor discoveries that were made during the consolidation of the south and west walls of the cloister by the Department of the Environment in the winter of 1976-1977.

The south wall has the remains of two 3 ft -wide buttresses on its north side positioned at approximately one-third and two-thirds of the way along. In the centre of that side where the facing had come away the back of a cupboard was discovered 2 ft by 1 ft 6 ins and lined with 4 -inch bricks. There was no sign of it on the church side, onto which it would have opened. It was blocked up again to prevent weathering. Also on the north side, 24 ft from the east corner, clearance of vegetation revealed a short column of mortar robbed of its facing-stone with projecting core-work above it. It is difficult to explain this feature unless it was either a kind of support for an oriel window overlooking the cloister from the church or else part of the back of a seat for the prior or a lectern. Post-dissolution alterations and blockings have destroyed precise evidence for the width of the eastern and western doorways into the church. There seems to have been a $3-\mathrm{ft}$ wide doorway 1 ft in from the west corner. The west wall of the church survived for 15 ft running southwards from the south-west corner of the cloister. Ashlar on its west face survived just below modern ground level.


[^0]:    Norwich Cathedral, plan of the north arcade piers.

