

THE NORMAN STRUCTURE OF LEOMINSTER PRIORY CHURCH

By J. T. Smith

LEOMINSTER Priory Church is one of the most puzzling of all English Romanesque monuments. The most important problem it presents concerns the form of church intended but never achieved by the early twelfth-century builders. Whatever the original intention may have been it was abandoned early on, before work began on the triforium, so the curious plan of the nave (fig. 1c and pl. 1) represents a scheme that was either found unsuitable to the needs of the house, or beyond the capacity of the masons to execute, within a generation of its conception. No solution to the problem seems to have been offered hitherto¹; the purpose of this article is to define the form of structure implied by the plan and to suggest that, in the event, it was too ambitious and beyond the masons' powers to complete.

Such an inquiry must start from the detailed account of the building published by the Royal Commission on Historical Monuments, from which the following extract outlining the historical development of the church is taken:

"The manor of Leominster was granted by Henry I to his new Benedictine Abbey of Reading in 1123, and the cell or priory of Leominster was probably established then or shortly after. To this date no doubt belonged the destroyed eastern arm and transepts, and the consecration of the altar of the Holy Cross soon after 1130 probably implies that the works had then extended to part of the existing nave. The original design of the nave was not proceeded with above the nave arcades and probably extended W. only as far as the existing W. tower. The superstructure shows the adoption of an entirely different design and may date from

¹ After this article was in typescript but before the drawings were finished the following footnote appeared in Nikolaus Pevsner's *Herefordshire* (1963), 225, n.: "Dr. Zarnecki and Professor Bony connect this unusual system with Pétigieux, and are inclined to assume that the original plan foresaw vaulting by domes—a bold assumption to make." See also *ibid.*, 23.

about the middle of the twelfth century; at the same time the central solid pier in each arcade was replaced by an open arch and its two responds were transformed into cylindrical piers. An alteration in alignment in the N. arch of the W. tower shows that this did not form part of the original design, though the details are still indicative of a mid twelfth-century date, much of the carving showing a close affinity with that at Shobdon, which is definitely dated before the middle of the century. It is, however, possible that the W. doorway, on which this carving occurs, was built before the tower was contemplated, and that the tower itself was an addition with the reconstruction of the N. and S. arches supporting it. The N. aisle was built at the same time as the nave, and with it a S. aisle, of which only the base of the W. wall remains."²

To this may be added a passage from the architectural description of the nave:

"The twelfth-century N. and S. arcades were originally of three semi-solid bays divided by single open bays. The middle solid bay on each side was removed and replaced by an open arch with the result that only two solid bays now remain, with three open arches between them and a single solid arch to the W. The purpose of these very solid arches was presumably to carry very broad transverse arches, perhaps in connection with a barrel-vault; the scheme, however, was abandoned before the triforium was built. . . . The triforium, on both sides, is designed irrespective of the bays of the arcade below. . . ."³

It will be noted that the Commission, which in the context of Romanesque architecture meant the late Sir Alfred Clapham, suggested the barrel-vault solution in a rather tentative way. In the architectural survey of the county prefaced to the inventory uncertainty is even more marked. Clapham refers to the early twelfth-century work at Hereford Cathedral, where

"the broad responds between the bays of the choir seem to imply a system of roofing with broad arches across

² R.C.H.M. *Herefordshire*, III, III.

³ *ibid.* 112.

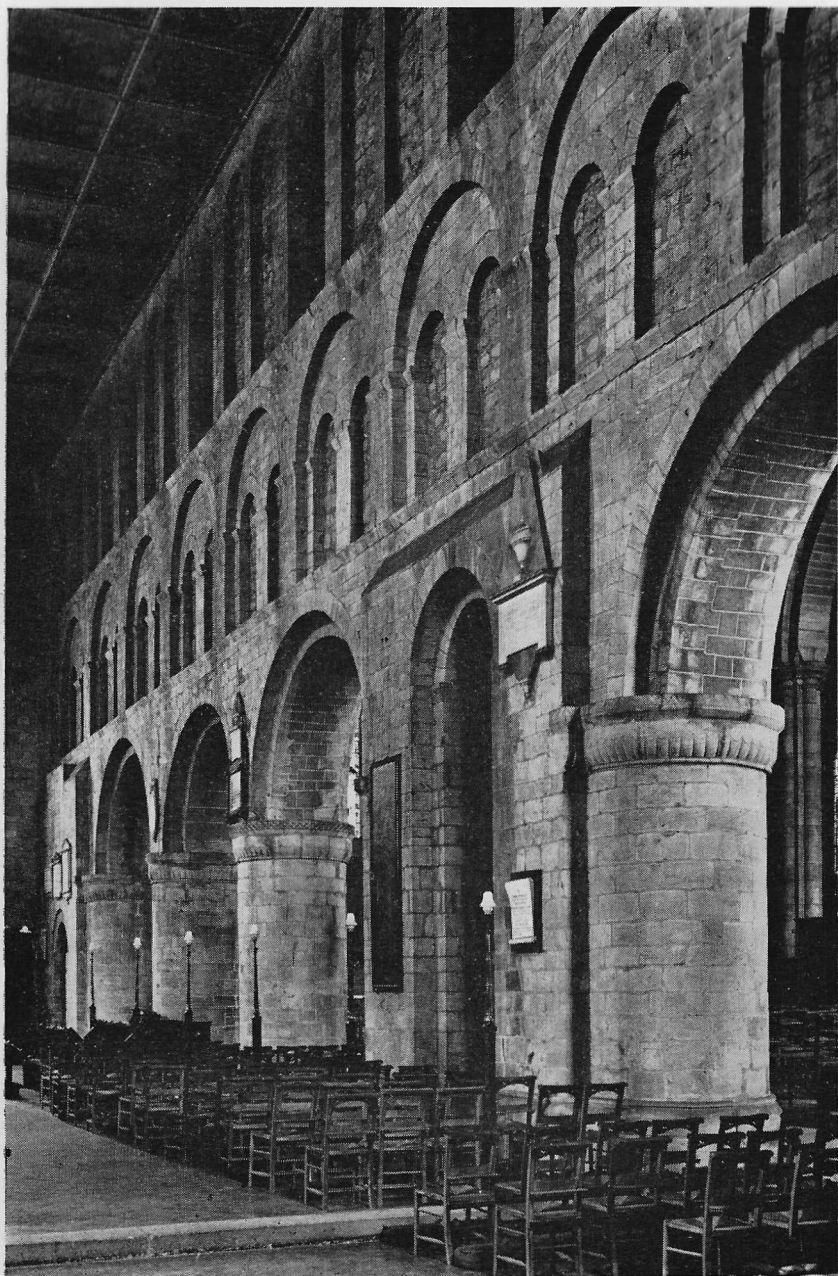


PLATE I. LEOMINSTER PRIORY CHURCH, HEREFORDSHIRE.
South arcade of Nave.

the main span, similar to those formerly existing at Chepstow.

"Something of the sort, on a very exaggerated scale, is perhaps implied by the curious and unique arrangement of the main arcades at Leominster. . . . Here again it seems likely that the solid bays were intended to support cross arches, though which form of roof was designed to cover the open bays does not appear. However this may be, the scheme was definitely abandoned before the building of the existing triforium and clerestory, which have no provision for a stone vault of any form."⁴

Clapham does not seem to have taken up the problem later, nor did the visit of the Royal Archaeological Institute to Herefordshire in 1952 produce any further ideas.⁵

Before putting forward a new solution something must be said about the idea of a barrel vault interrupted by heavy transverse arches such as existed at Hereford Cathedral and Chepstow. First, as Clapham indicated, the scale of the supports at Leominster is enormously exaggerated by comparison with Hereford—about 21 ft. compared with 11 ft.—but it may well have been this difference, as between bays and piers, that inspired an even more cautious tone in the preface than in the text. Secondly, it does not explain the narrow arches dividing the solid bays, for which no English parallel is known.

Now it is precisely these minor arches giving rise to semi-solid bays that may provide the clue to the intended form of the nave. Piers incorporating this feature are not otherwise known either in England⁶ nor, apparently, in France⁷. Since Germany has nothing of the sort, the kind of structure that should be associated with them is not to be sought in those Carolingian and Ottonian traditions which influenced the design of Hereford Cathedral so profoundly; consequently the Romanesque churches of Belgium and Holland which share the same traditions cannot produce a

⁴ *ibid.*, lxx.

⁵ No fresh account of Leominster Church was attempted in view of the Royal Commission's recent publication.

⁶ A. W. Clapham, *English Romanesque Architecture after the Conquest*, 51-54.

⁷ R. de Lasteyrie, *L'Architecture Religieuse en France à l'Époque Romane*, 2nd ed., 1929, 315-318; C. Enlart, *Manuel d'Archéologie Française*, Pt. 1, vol. I (3rd ed. 1927), 344-351.

parallel.⁸ We need to go well beyond the immediate sources of inspiration of English Romanesque before finding, as far away as Cyprus, churches which share with Leominster this peculiarly planned type of nave pier.

Two in particular, S. Lazare, Larnaca, and S. Barnabé, Famagusta—neither of them clearly dated but probably of the late eleventh century⁹—have a structural system comprising an aisled nave of three main bays each roofed with a dome and separated from the rest by a wide semi-solid bay carrying a barrel-vault (pl. 2).

Their plans (fig. 1a, b) are, in this one respect, strikingly like Leominster, even though the bays are somewhat smaller—nearly 15 ft. and 21 ft. sides respectively compared with the 25 ft. width of Leominster nave. However far-fetched the parallel may seem the similarity of the piers and bay systems is sufficient to suggest that the Herefordshire priory church was intended to have a series of at least three domes above the nave, and that the weight of these was to be supported by piers which are of extraordinary length and of greater width than the main arches joining them. It does not, of course, follow from this that Leominster nave was ever intended to be roofed in exactly the same way as, say, S. Barnabé, Larnaca, with each dome on pendentives and drum-shaped externally, still less that the aisles would have followed Cypriot fashion and been roofed by a series of half-domes (on pendentives) buttressing the main domes. All that is here claimed is that the semi-solid bays, in Cyprus and at Leominster alike, were intended to support heavy domes of some sort between them.

If this be accepted for the moment, it remains to show how such a distinctive structural conception could have been transmitted to England. Enlart remarked how the disposition of the Cypriot churches recalled that of the domed churches of Aquitaine,

⁸ S. Brigove, *Les Églises Romanes de Belgique*, 1944; S. J. Fockema Andreae and others, *Duizend Jaar Bouwen in Nederland*, I, 1958.

⁹ C. Enlart, "Les Eglises a Coupoles d'Aquitaine et de Chypre", *Gazette des Beaux Arts*, 1926, 129-152; plans at 141, 143. J. A. Hamilton, *Byzantine Architecture and Decoration* (1934), 60, referring to Enlart's theory of their connection with the Aquitaine churches, says it "would necessitate dating them at a much earlier time than seems likely." Nevertheless in a further comment (*ibid.*, 151) he notes that "characteristics of the French pendentives are to be found in some of the Cypriote churches."

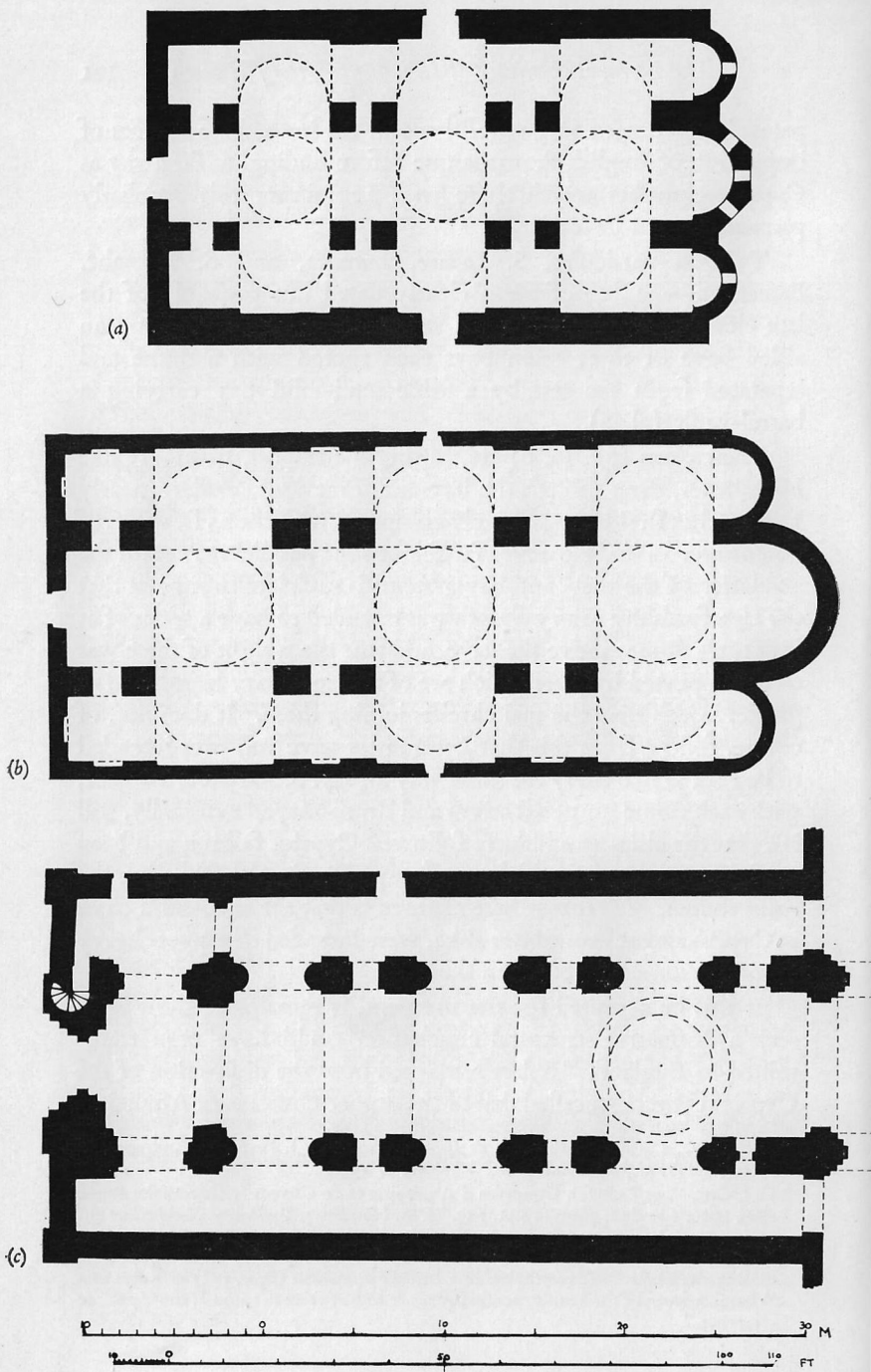


FIG. 1. (a) S. Lazare, Larnaca, Cyprus.
 (b) S. Barnabé, Famagusta, Cyprus.
 (c) Leominster Priory Church—Nave only.

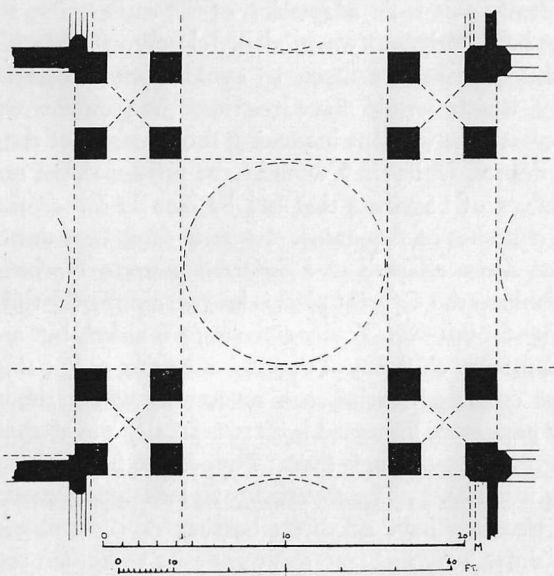
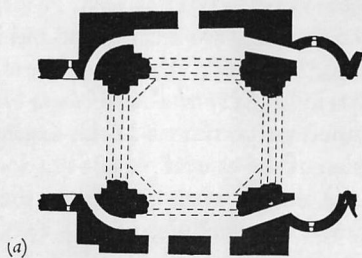


FIG. 2. (a) Puypéroux.
(b) S. Front, Périgueux.

by, *inter alia*, the arches, which, he says, are very wide and sometimes pointed, carried on enormous rectangular piers, some of which are lightened or pierced as in S. Front, Périgueux, but with the difference that they are rectangular and incorporate only one vaulted passage.¹⁰ Enlart, who again drew attention to the churches of Cyprus in his *Manuel d'Archéologie Française*,¹¹ did not follow up this important comment in the section "Supports" in that book.¹² A plan of the central part of the domed cathedral of Périgueux (fig. 2b) shows what he meant; the massive square piers carrying the dome are pierced by two narrow barrel-vaulted passages at right angles to each other.

Evidently this is an adaptation of the earlier piers at Larnaca and elsewhere. Périgueux was modelled closely on St. Mark's, Venice. Both churches show a desire to avoid having solid masses of masonry which would have restricted movement within the Greek-cross plan without increasing the strength of the supports for the domes, while they would have produced the undesirable visual effect of heaviness that can be seen in some other of the domed churches of Aquitaine. Larnaca—and Leominster—show the same desire adapted to a different pattern. Nothing closely comparable to the Cypriot piers is known among the fully-domed churches of south-west France since none is aisled, but among the more numerous churches of the region having only a single dome over the crossing can be seen several in which the necessary massive piers were lightened both structurally and aesthetically by running passages through them; Puypéroux (fig. 2a) is the most striking instance.¹³ The diversity of plans represented in these French churches have no direct bearing on Leominster but do at least show how insistent was the desire to lighten the appearance of the inevitably massive supports required for a dome.

¹⁰ As n. (9), 143; a free translation of lines 5-12.

¹¹ As n. (7), 233-5.

¹² As n. (7), 344 et seq.; de Lasteyrie also, as n. (7), 315-8, ignores this form of pier.

¹³ J. George and A. Guérin-Boutard, *Les Eglises Romanes de l'Ancien Diocèse d'Angoulême*, (1928) 145. Other churches such as Champniers and S. Amant-de-Boixe (*op. cit.* 197, 199) show modification of plan for the same purposes. Fontevrault has passages cut through the piers at the east end of the nave; K. Conant, *Carolingian and Romanesque Architecture, 800-1200* (1959), 171-2. The ultimate conclusion of this process is seen at S. Hilaire, Poitiers, where the domes of the nave are supported by what are, in effect, two narrow vaulted aisles, the nave walls being reduced to double arcades.

What, then, happened at Leominster? The priory church seems to be an amalgam of ideas rather than a copy, however free, of an existing building. The planning of the eastern arm conforms to a familiar French and English type with ambulatory and radiating chapels.¹⁴ On its completion and consecration soon after 1130 the builders planned a nave of at least three domed bays with transverse arches between them; the arches were to be supported by piers so massive as to be in effect short bays, hence they were pierced by much narrower arches giving access to the aisles. It is difficult to be sure whether square bays were intended, as is usual in the larger domed churches, or slightly rectangular, as in some smaller ones.¹⁵ Before the third bay from the E. was finished, or even perhaps begun, the plan was revised so that the nave was finished off with a west tower in what was essentially an older fashion—Carolingian or Ottonian—and the external elevation completed in a more orthodox way with three storeys. The change may have been due to a failure of nerve; awareness that all French churches of this type are aisleless may have induced doubts about the stability of the intended nave or perhaps unfamiliarity with the type of structure envisaged led to wrong setting-out. It is observable that the piers, even as designed, are not set out with the perfect regularity of the Cypriot and French examples. Whatever the cause, the change of mind produced an undistinguished and structurally unambitious building.

If the original intention has been correctly divined it should nevertheless have been technically possible to complete the church even without knowing the Byzantine solution to the problem that was adopted in Cyprus. A few Italian churches, in Apulia, have domed naves which are buttressed by the barrel vaults spanning the aisles.¹⁶ Although this mode of resisting the thrust of a nave vault had been evolved—no doubt independently and certainly much earlier—at Tournus in Burgundy, and was transmitted thence by the Cistercians, who used it, for instance, at Fountains,

¹⁴ Clapham, as n. (6), 41.

¹⁵ On the plan (fig. 1c) are drawn two circles representing alternative sizes of dome, given the existing bay system.

¹⁶ A. W. Clapham, *Romanesque Architecture in Western Europe* (1936), 54 and n. (1). Plans and descriptions in G. Dehio and G. v. Bezold, *Die Kirchliche Baukunst des Abendlandes*, I (1892), 323-5.

it was presumably not known to the Leominster masons. Cross arches were evidently intended to span the aisles, as the thickening of the solid bays demonstrates, but what they were intended to support is uncertain. No trace remains of any corresponding thickening of the aisle walls. One further point to be noted about the planning of Leominster priory church is the marked lack of alignment between choir and nave, showing that the whole church was not laid out at once. Presumably the divergence was due to an earlier church standing on the site of the nave and so impeding the setting out of the new work until the choir was ready for use.¹⁷ The point has some importance in showing that the design of the nave need not have been decided finally before c. 1130, the date by which domes had become popular in south-western and southern France¹⁸, whence the idea must have been transmitted to England; for notwithstanding its greater likeness of plan to the churches of Cyprus, the embryonic domed nave of Leominster must surely be derived from France rather than from any more remote source. But a derivation from south-west France receives some support from the recent definition of a Herefordshire school of sculpture centred, it may be, on Leominster, which has affinities with that region.¹⁹ The absence in those parts of any church with a nave that is both domed and aisled at least squares with the abandonment of the Leominster project, as if the latter had not been properly thought out. When a domed nave was desired in a French church, as for instance at Fontevrault,²⁰ it seems always to have been aisleless even though the choir had been built on an aisled plan, and this was so at Notre Dame de la Couture, Le Mans, where domical ribbed vaults were employed.

If this conjectural history of Leominster be correct, it illustrates a recurring phenomenon in the history of art, that is, the difficulty with which structural techniques were transmitted from one region to another. Ornament was much easier to transmit, as Dr. Zarnecki's linking of Poitou and the late twelfth-century Here-

¹⁷ A convent of nuns was at Leominster as early as the ninth century; as n. (2).

¹⁸ The chronology of the major churches is set out in an Appendix.

¹⁹ "In particular, the decoration of the churches of the Poitou and Charente districts of Western France shows strong links with Herefordshire"; G. Zarnecki, *English Romanesque Sculpture, 1140-1210* (1953), 12.

²⁰ Conant, as n. (13), 171-2.

fordshire school of sculpture indicates. In an age in which training in design was acquired through the practice of a craft the master mason planning a new building was bound to follow to a large extent the lines of buildings he had worked upon. The apparent total lack of theoretical training independent of practical work inhibited experiment in all but the ablest and most perceptive masons; conversely, a change of master mason through illness or death may well often have been responsible for changes in design in the course of large-scale works. At a time like the late eleventh and early twelfth century, when master masons must have been brought from the continent in considerable numbers, this sort of unfortunate contingency will have occurred a number of times, and the bolder the innovation in progress, the less likelihood there was of finding someone to complete the work as its first designer intended. For an advanced and alien structural form such as the dome to take root required the immigration of masons skilled in the necessary techniques and, just as important, an awareness among patrons of its usefulness in solving their own problems. Few buildings show changes as dramatic as those that can be inferred at Leominster; to discern which of several possible causes operated is harder and perhaps impossible with the small amount of architectural and documentary evidence available. Whatever the cause, the difficult technique of the dome was never transmitted to England in the Middle Ages.

APPENDIX I

Domed Churches of Aquitaine

The following list, based on works cited above by de Lasteyrie (2nd ed. rev. Aubert), Enlart, Clapham and Conant, gives the dates of building of the more important domed naves.

Périgueux, S. Etienne; c. 1100.

Angoulême Cathedral; begun 1105, consecration 1128.

Cahors Cathedral; consecration of 1119 probably included at least one bay of the domed nave. R. Rey, *Cath. de Cahors* (1925), considers it the earliest in France.

S. Avit-Sénieur; consecration 1117, nave presumably begun thereafter and completed 1147.

Périgueux, S. Front; begun after fire in 1120.

Poitiers, S. Hilaire; first quarter of the twelfth century according to M. Aubert, *Congr. Arch.* CIX (1951), *Poitiers*, 50-52.

Fontevrault, c. 1125	} according to Conant, who is the only authority to give such precise dates to these churches.
Souillac, c. 1130	
Solignac, c. 1130	

It is relevant to add that the domed church of St. Mark at Venice, the model upon which S. Front, Périgueux, was based and which also has passages through the piers, was begun in 1063 and consecrated in 1094.

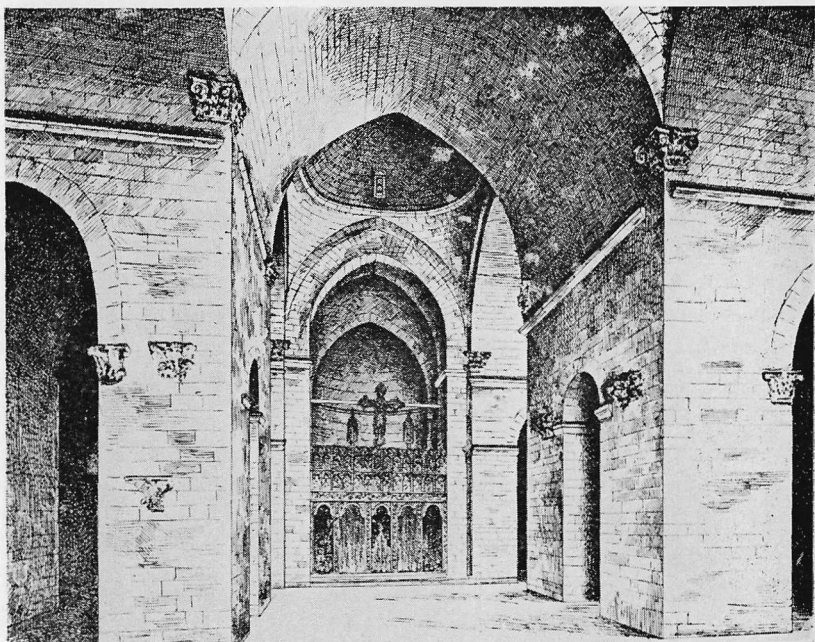


PLATE 2. S. BARNABÉ, FAMAGUSTA, CYPRUS.
Late eleventh century.