



## Introduction to an "Iconography of Mediaeval Architecture"

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# INTRODUCTION TO AN "ICONOGRAPHY OF MEDIAEVAL ARCHITECTURE"

By Richard Krautheimer

Since the Renaissance it has become customary to consider architecture as being determined by "commodity, firmness and delight" or, to use a less Wottonian terminology, by function, construction, and design. To view architectural problems from these angles and from them alone, has become something like a fundamental tenet of architectural history. Yet the validity of such a view appears rather doubtful where mediaeval architecture is concerned.<sup>1</sup> Obviously there can be no doubt that problems of construction, design and function, and of the integration of these elements, were of fundamental importance to mediaeval as well as to later architects. Yet it would seem that these essentials of architecture as laid down by Sir Henry Wotton, and before him by Leone Battista Alberti, were differently emphasized and that in addition to them other elements played a vital part in the mediaeval conception of architecture. As a matter of fact, no mediaeval source ever stresses the design of an edifice or its construction, apart from the material which has been used. On the other hand the practical or liturgical functions are always taken into consideration; they lead on to questions of the religious significance of an edifice and these two groups together seem to stand in the centre of mediaeval architectural thought. Not once, it will be remembered, does Suger refer to the revolutionary problems of vaulting and design in his new building at St. Denis. Evidently the design of an edifice or for that matter the construction were not within the realm of theoretical discussion. On the other hand the religious implications of a building were uppermost in the minds of its contemporaries. Time and again Suger discusses the dedications of altars to certain Saints. Questions of the symbolical significance of the layout or of the parts of a structure are prominent; questions of its dedication to a particular Saint, and of the relation of its shape to a specific dedication or to a specific religious—not necessarily liturgical—purpose. The 'content' of architecture seems to have been among the more important problems of mediaeval architectural theory; perhaps indeed it was its most important problem. The total of these questions would form the subject of an iconography of architecture. Such an approach would merely return to an old tradition which as recently as a century ago was still present in the minds of archæologists of art;<sup>2</sup> it is during the last fifty years only that this has ap-

This article is based on a brief paper read to the meeting of the College Art Association held in Chicago in January 1941. I want to thank my wife, Mrs. Trude Krautheimer-Hess for her continuous collaboration in preparing and writing this essay.

<sup>1</sup> Throughout this paper the term "Middle Ages" will be used so as to cover the whole period from the 4th to the end of the 12th century.

<sup>2</sup> J. Ciampini, *Vetera Monumenta* . . ., Rome, 1690-99; J. Bingham, *The Antiquities of the*

*Christian Church*, London, 1708-22; J. Britton, *Architectural Antiquities*, London, 1807; J. Kreuser, *Der christliche Kirchenbau*<sup>2</sup>, Regensburg, 1860-61; Otte, *Handbuch der kirchlichen Kunstarchäologie des deutschen Mittelalters*<sup>5</sup>, Leipzig, 1883-85. A very few ecclesiastical archæologists have continued this century-old tradition to the present day; the most prominent among them are: J. Sauer, *Symbolik des Kirchengebäudes*, Freiburg, 1924 and F. J. Doelger, *Antike und Christentum*, Münster, 1929 ff.

parently been superseded by a purely formalistic approach. The following remarks are not intended to be complete; they are meant merely to form contributions towards a future iconography of mediaeval architecture.

### 1. Copies in Mediaeval Architecture

An approach towards the discovery of those elements which in the view of mediaeval men were outstanding in an edifice is offered by the numerous architectural copies which were erected throughout the Middle Ages. Obviously the relations between these copies and their originals are bound to reveal some of these elements. Often when two buildings are compared with one another in mediaeval writings the modern reader may wonder how the author came to see any resemblance between the two. The 10th century *Miracula S. Maximini*, for instance, records that the church at Germigny-des-Prés was built like the palatine chapel at Aix-la-Chapelle, “. . . instar eius . . . quae Aquis est constituta . . . ;”<sup>1</sup> two hundred years later, William of Malmesbury makes a similar statement with reference to the chapel of Bishop Robert of Lorraine at Hereford “. . . ecclesiam tereti edificavit scemate Aquensem basilicam pro modo imitatus suo.”<sup>2</sup> Since two of these edifices, Aix-la-Chapelle and Germigny-des-Prés, still exist and Hereford is recorded in an 18th century drawing<sup>3</sup> it is easy to check these examples; yet it is hard for a modern beholder to see anything comparable in them. The chapel of Aix, with its domical-vaulted octagonal centre-room surrounded by a sixteen-sided ambulatory and by galleries, seems quite different from the square church of Germigny with its open central tower, its barrel-vaulted cross arms and its domed corner bays; nor does it seem to resemble the square double-storied chapel at Hereford in which of the nine bays the middle one is open in order to connect the two stories and the remaining eight are covered with groin vaults. One might at first be inclined to say that these statements are based simply on mistakes; but they are made so frequently and with such precision that this explanation seems too easy an escape. For instance Sta. Sophia at Beneventum, an hexagonal structure with two ambulatories is compared to the Hagia Sophia at Constantinople;<sup>4</sup> the small 10th century church of Petershausen is likened to St. Peter's in Rome “. . . secundum . . . formam basilicae principis apostolorum Romae constructa(m);”<sup>5</sup> the 11th

<sup>1</sup> J. v. Schlosser, *Schriftquellen zur Geschichte der Karolingischen Kunst*, Wien, 1896, in: “Quellenschriften für Kunstgeschichte . . . herausgegeben von R. Eitelberger,” N.F., IV (henceforth quoted as Schlosser, “Karol. Kunst”), no. 682.

<sup>2</sup> Willelmi Malmesberiensis, *Gesta Pontificum Anglorum*, ed. N. E. S. A. Hamilton, London, 1870 (Rolls Series), p. 300.

<sup>3</sup> A. W. Clapham, *English Romanesque Architecture after the Conquest*, Oxford, 1934, p. 112, from Society of Antiquaries, *Vetusta Monu-*

*menta* I, London, 1747, pl. XLIX.

<sup>4</sup> “Translatio Sancti Mercurii” (11th century?), *M.G.H., SS. Rer. Langob.*, p. 576 ff., particularly p. 577: “. . . sancte Sophie basilica, quam exemplar illius condidit Justinianae;” cf. “Carmen de translatione duodecim martyrum” (mid 11th century), *ibid.*, p. 575.

<sup>5</sup> Vita Gebhardi Episcopi Constantiensis, *M.G.H., SS. X.*, p. 582, particularly p. 587; cf. J. Gantner, *Kunstgeschichte der Schweiz*, I, Frauenfeld, 1936, p. 134 ff.

century cathedral at Bremen to those of Cologne and Beneventum.<sup>1</sup> This list could be enlarged considerably, yet time and again the validity of the comparison would be questioned. The only justifiable conclusion seems to be that the mediaeval conception of what made one edifice comparable to another was different from our own. Mediaeval men must have had *tertia comparationis* utterly at variance with those to which we are accustomed.

In order to understand these different principles it may be advisable to turn to buildings which were definitely copied from clearly established prototypes.

Among the great number of edifices erected throughout the Middle Ages with the intention of imitating a highly venerated prototype, one group is particularly suitable for establishing the nature of a mediaeval copy: the imitations of the Holy Sepulchre at Jerusalem. They exist not only in great numbers but also depend on a model which is still relatively well preserved and can easily be reconstructed in its original aspect. These copies were built all over Europe from the 5th to as late as the 17th century.<sup>2</sup> Yet although the intention of imitating the Rotunda of the Holy Sepulchre is expressly stated in many instances, the buildings vary surprisingly from each other; they are also astonishingly different from the prototype which they mean to follow.

There is, for instance, the small church of St. Michael at Fulda (Pl. 1a, e). It was erected by Abbot Eigil, possibly with the advice of Hrabanus Maurus, between 820 and 822. Although in its present state the structure is largely 11th century, the few extant original parts, the contemporary descriptions and recent excavations are sufficient to give a fairly accurate idea of the aspect of the 9th century edifice.<sup>3</sup> A small centre-room is surrounded by an ambulatory; a crypt, covered with an annular barrel-vault on a single short ionic column extends under the centre-room and is surrounded by a ring-shaped corridor beneath the ambulatory. Eight columns—they were replaced in the 11th century<sup>4</sup>—carried what appears to have been a dome or an eight-sided domical-vault over the centre-room.<sup>5</sup> It is not known whether this

<sup>1</sup> *Adami gesta Hammaburgensis eccl. pont. lib.* II, cap. 77, Lib. III, cap. 3 (ca. 1075), in O. Lehmann-Brockhaus, *Schriftquellen zur Kunstgeschichte des 11. und 12. Jahrhunderts*, Berlin, 1938, nos. 230, 232.

<sup>2</sup> The subject of these copies has been treated in a more or less general way by G. Dalman, *Das Grab Christi in Deutschland* ("Studien über Christliche Denkmäler," 14), Leipzig 1922; N. C. Brooks, *The Sepulchre of Christ in Art and Liturgy*, ("University of Illinois Studies in Language and Literature," VII, 2), Urbana, Ill., 1921; Anonymous, "Das Grab des Welterlösers in seinen mittelalterlichen Nachbildungen," *Der Kirchenschmuck*, XXVI, 1895, pp. 125 ff., 141 ff., 153 ff.; XXVII, 1896, pp. 10 ff., 33 ff. The latest copy of the Anastasis which has come to my knowledge was erected at Innichen in

1653; it was copied after 1888 at Potsdam to serve as a mausoleum for the Emperor Frederick III; see *Kirchenschmuck*, XXVII, 1896, p. 12.

<sup>3</sup> Candidus, *Vita Eigilis*, M.G.H., SS. XV, 1, p. 221 ff., particularly p. 230 f.; J. Schalkenbach, "Die Wiederherstellung der Michaelskirche zu Fulda," *Deutsche Kunst und Denkmalpflege*, 1938, p. 34 ff. Only the crypt and the ground plan of the main floor are 9th century.

<sup>4</sup> The old bases have been found underneath the 11th century ones; four of the Carolingian capitals have been re-used; see Schalkenbach, *loc. cit.*

<sup>5</sup> Candidus, *Vita Eigilis*, *op. cit.*, p. 231: ". . . in summo uno lapide istius aedificii perfectio consummatur. . ."

original structure had a gallery over the ambulatory. Certainly it had not the three chapels which now radiate from the ambulatory but only one to the east; the north and south chapels as well as the gallery, the clerestory, the roof and the long nave, were all added in a restoration of 1092. The "titulus" of the main altar leaves no doubt that the original structure was already linked to the Holy Sepulchre,<sup>1</sup> and in fact as late as 1715 a Tomb of the Lord, conical in shape, rose in the centre of the edifice.<sup>2</sup>

Two hundred years after Eigel and Hrabanus had erected the chapel at Fulda, Bishop Meinwerk of Paderborn wanted to build a church "ad similitudinem s. Jerosolimitane ecclesie" and dispatched Abbot Wino of Helmershausen to Jerusalem to bring from there the required measurements "mensuras eiusdem ecclesie et s. sepulchri." "Reverso autem Winone abbate . . . et mensuras eiusdem ecclesie et sepulchri sancti reliquias referente . . ."<sup>3</sup> the church was built and consecrated in 1036 (Pl. 1b). It was situated in what is at present the Busdorf convent. Excavations have shown that the original edifice was an octagonal structure rising from circular foundation walls. Three large rectangular chapels radiated from this central room in the main axes; a fourth chapel, possibly flanked by two round towers may have served as an entrance structure. No supports divided the interior. Whether the building was vaulted or had a wooden roof remains unknown.

The Rotunda at Lanleff, not far from Caen (Pl. 1c), was erected late in the 11th century.<sup>4</sup> It is again a round structure with centre-room and ambulatory; the ambulatory was covered by groin vaults carried by twelve supports, each a square pier with four engaged columns. Three small absidioles radiated from the ambulatory. Although, in contrast to the other edifices, the dedication of Lanleff has not been ascertained, the very motive of these absidioles and their position off-centre leaves no doubt that this structure also is derived from the Holy Sepulchre at Jerusalem.

A fourth building, the church of the Holy Sepulchre at Cambridge, would seem to date from the first quarter of the 12th century (Pl. 1d, f). It was badly restored in 1841, but earlier reproductions give a good idea of the original state.<sup>5</sup> Eight sturdy columns separated the rib-vaulted ambulatory from a centre-room which until 1841 was surmounted by a tall tower. The first storey of this tower was obviously the clerestory of the centre-room. Evidently the original structure had no choir (the present one was added in 1313) and no radiating chapels. Eight twin openings, supported by sturdy

<sup>1</sup> Hrabanus Maurus, *Carmina*, 42, M.G.H., P. L. II, p. 209: "In primo Altare.

Hoc altare deo dedicatum est maxime Christo Cuius hic tumulus nostra sepulcra iuvat . . ."

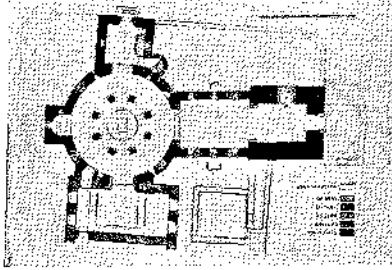
<sup>2</sup> Dalman, *op. cit.*, p. 27 f.

<sup>3</sup> *Vita Meinwerki episc. Patherbrunensis*, cap. 209 ff. (second half of 12th century), Lehmann-Brockhaus, *op. cit.*, nos. 1046-1050. The excavations have been discussed by W. Rave, "Die Entdeckung der ursprünglichen Busdorfkirche zu Paderborn," *Deutsche Kunst und Denkmalpflege*, 1936, p. 221 ff.

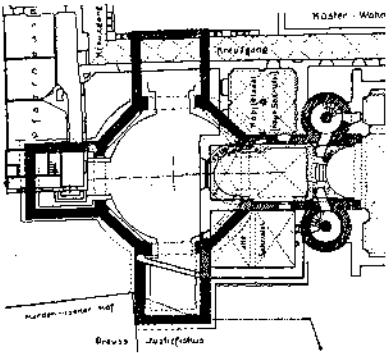
<sup>4</sup> A. Rhein, "Le Temple de Lanleff,"

*Congrès archéol.*, 81, 1914, p. 542 ff.; E. Viollet-le-Duc, *Dictionnaire raisonné de l'Architecture Française*, VIII, Paris, 1866, p. 287 f. The church is at present a ruin; one of the radiating chapels is preserved, the others have been restored on the basis of reliable traces; see Rhein, *loc. cit.*

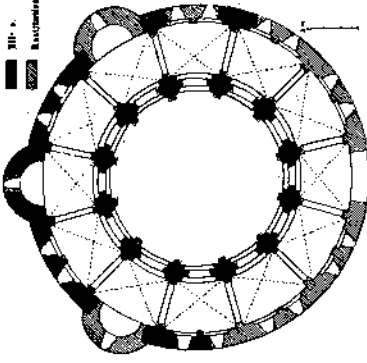
<sup>5</sup> J. Essex, "Observations on the Origin and Antiquity of Round Churches," *Archeologia*, VII, 1787, p. 163 ff.; Ch. Clarke, "An Essay towards an History of Temples and round Churches," in J. Britton, *Architectural Antiquities*, I, 1, 1807; Clapham, *op. cit.*, p. 109 f.



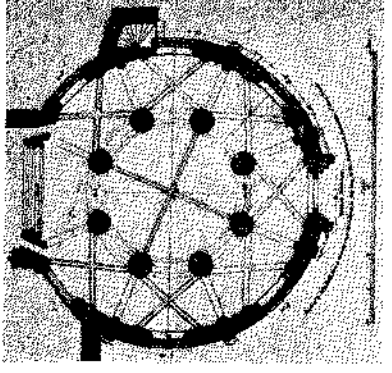
a—St. Michael, Fulda  
(pp. 3, 6)



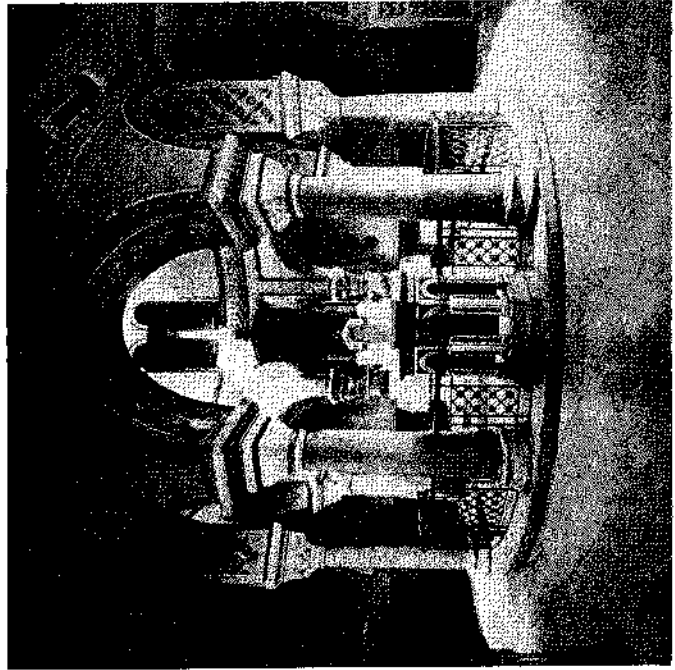
b—Holy Sepulchre, Paderborn  
(p. 4)



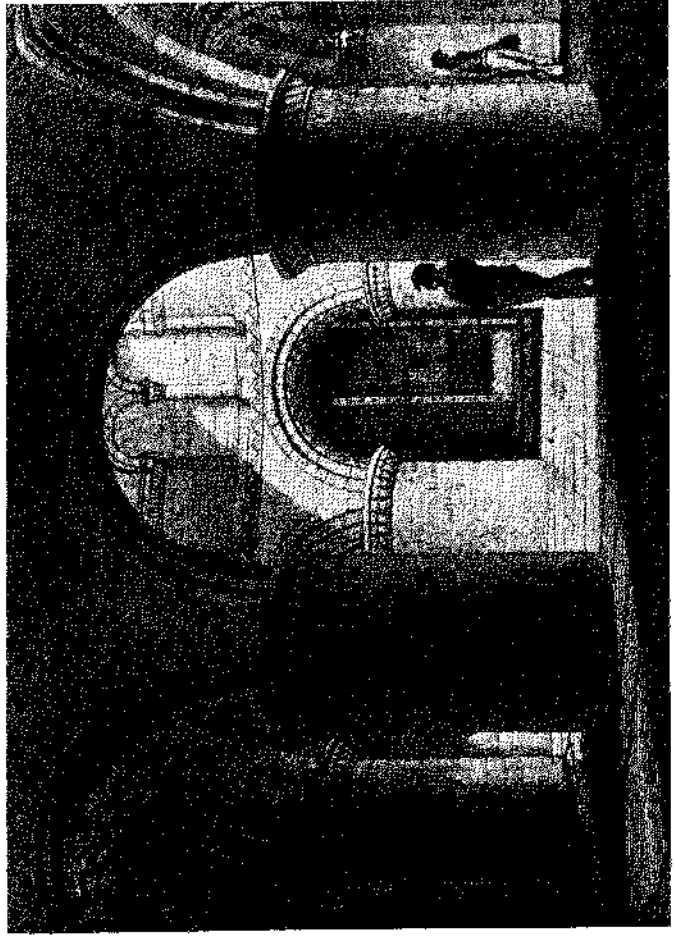
c—Rotunda, Lanjeff near Caen  
(p. 4)



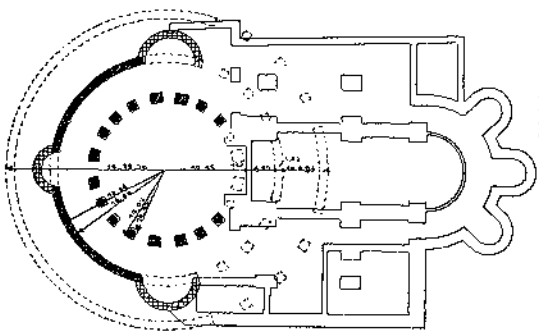
d—Holy Sepulchre, Cambridge  
(p. 4)



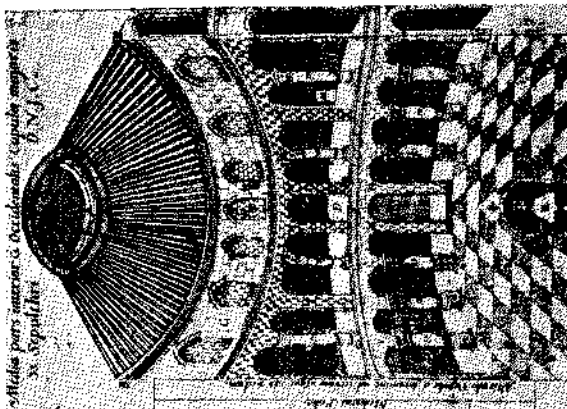
e—St. Michael, Fulda (pp. 3, 7)



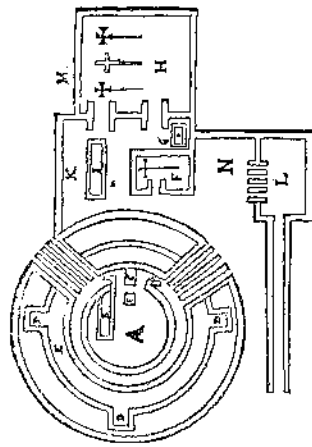
f—Holy Sepulchre, Cambridge (From Britton, *Arch. Antiquities*, 1807) (pp. 4, 7, 13)



a—Anastasis, Jerusalem (p. 5)

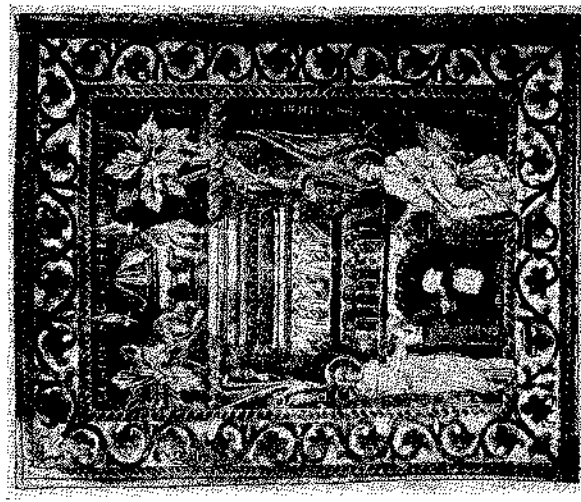


b—Anastasis, Jerusalem. 1725 (After Horn, *Cod. Vat. lat.* 9233, (p. 5)



- A. Tegurion rotundum.
- B. Sepulchrum Domini.
- C. Altaria duobus.
- D. Altricia.
- E. Ecclesia.
- F. Golgothana Ecclesia.
- G. In loco Altaris Abraham.
- H. In quo loco Crux Dominica cum bina Latronum.
- I. Mensa lignea... (crucibus fidei terra reperia est).
- J. Piscina, in qua dicitur hodie lampadas ardere.
- K. Sanctae Mariae Ecclesia.
- L. Constantiana Basilica, hoc est Martyrium.
- M. Exedra cum Calice Domini.

c—Anastasis, Jerusalem, in 670. Arculph Plan (p. 19)



d—Anastasis in the Sacramentary of Henry II. Munich, cod. lat. 4456 (p. 14)



e—Anastasis on the Wooden Casket of the Sancta Sanctorum, Rome (p. 15)

piers and slender intermediary columns, were arranged above the arcades of the ground floor, forming a sham gallery.

All four of these structures were intended to represent the Holy Sepulchre at Jerusalem. But all four are quite different from one another: they are round or octagonal, with a single nave or surrounded by an ambulatory, vaulted or possibly with timber roofs, with one or more absidioles, and eight or twelve supports. The differences seem considerably to outweigh the similarities.

These differences become even more striking when the four edifices are compared with their common prototype at Jerusalem (Pl. 2a, b). This is not the place to enter into the complicated history of the Anastasis Rotunda.<sup>1</sup> Yet it is certain that from 628, when the Rotunda was restored,<sup>2</sup> and in all likelihood from the very outset in 340-350, it was a round structure with an ambulatory, surmounted by a gallery. Three small absidioles were added to this ambulatory in the 7th century. An outer ambulatory apparently encircled the whole building.<sup>3</sup> The central room was surrounded by twenty supports, eight piers in the main axes and three columns in each of the diagonal axes. In the gallery two columns and one pier rose in the diagonal axes above the three columns on the ground floor, while in the main axis two piers corresponded to those below. The arches of the gallery openings were as wide as those of the lower arcades. It remains uncertain whether the centre-room was vaulted or had a conical roof similar to that which existed from the 12th to the early 19th century.

Doubtless there are some general similarities between the 'copies' of the Holy Sepulchre at Fulda, Paderborn, Lanleff and Cambridge, and their Early Christian prototype. Yet these similarities seem to be rather vague to the modern eye; three of the copies are round, whereas the fourth, Paderborn, was octagonal. Indeed there are more examples of Holy Sepulchres with polygonal rather than round plans. The 12th century Rotunda of the Holy Sepulchre at Sto. Stefano at Bologna<sup>4</sup> forms an irregular dodecagon (Pl. 3a) whereas the church of Sto. Sepolcro at Pisa, built in the middle of the 12th century,<sup>5</sup> is a perfect octagon with a very wide ambulatory and unusually tall piers. In the church of the Holy Sepulchre at Northampton, dated circa 1120,<sup>6</sup> the ambulatory is round although divided into eight square and eight triangular bays, whereas the centre-room, which was rebuilt at a later period, is octagonal. It seems as though circle and polygon were interchangeable throughout the Middle Ages. For as early as the 4th century Gregory of Nyssa described the plan of an octagonal church as forming "a circle with eight angles" although he apologizes for his somewhat

<sup>1</sup> H. Vincent and V. Abel, *Jerusalem Nouvelle*, II, 1, Paris, 1914, p. 89 ff.

<sup>2</sup> J. W. Crowfoot, *Early Churches in Palestine*, London, 1937, p. 9 ff. The restoration of 628 has sometimes been assumed to have been a complete rebuilding. Vincent and Abel's findings have definitely disproved this hypothesis.

<sup>3</sup> R. Krautheimer, "Santo Stefano Rotondo

a Roma e la Chiesa del Santo Sepolcro a Gerusalemme," *Rivista di Archeologia Cristiana*, XII, 1935, p. 51 ff., particularly p. 85 ff.

<sup>4</sup> See below, p. 17 ff.

<sup>5</sup> M. Salmi, *L'architettura Romanica in Toscana*, Rome, n. d., p. 16, fig. 26, pl. 105. G. Rohault de Fleury, *Les monuments de Pise*, Paris, 1866, p. 55 f., pl. XVII.

<sup>6</sup> Clapham, *op. cit.*, p. 109 f., pl. 23, fig. 35.



loose terminology.<sup>1</sup> From then on distinctions of this kind lose their precision more and more. To Arculph who visited the Near East late in the 7th century the octagonal church of the Ascension on Mount Olivet, the Imbomon, was "rotunda" and so was the cross-domed plan of the Hagia Sophia in Constantinople.<sup>2</sup> Even as late as 1322 Sir John Mandeville called the octagonal Dome of the Rock "a circular edifice."<sup>3</sup> It could almost be said that to mediaeval eyes anything which had more than four sides was approximately a circle. Nor are semicircle, square and rectangle clearly differentiated: the semicircular apses of the Anastasis were transformed into squares in Meinwerk's chapel at Paderborn, while in the Arculph-Adamnanus plan of the Rotunda they were given unmistakably as rectangles.<sup>4</sup> An approximate similarity of the geometrical pattern evidently satisfied the minds of mediaeval men as to the identity of two forms; survivals of such an attitude could probably be found to this day.

This 'indifference' towards precise imitation of given architectural shapes prevails throughout these 'copies' of the Holy Sepulchre. The ambulatory around the centre-room is one of their usual characteristics but it is not by any means indispensable. It is missing not only at Paderborn but also in the round single-naved chapel of St. Maurice at Constance, which was erected between 934 and 976 to contain a "sepulchrum Domini in similitudine illius Jerusolimitani . . ."<sup>5</sup> The three apses off the ambulatory of the Anastasis, if they are repeated at all, are sometimes not only square instead of semicircular as at Paderborn and perhaps also in the closely related 11th century chapel at the Krukenburg;<sup>6</sup> they are also frequently arranged in a position different from that in the Anastasis. In the church of Lanleff alone they keep the off-centre position of the Holy Sepulchre at Jerusalem. In the chapel of the Holy Sepulchre at St. Léonard a fourth chapel was added,<sup>7</sup> with the result that the four chapels occupy the main axes of the structure forming a cross. In the churches of Paderborn and of the Krukenburg the place of this fourth chapel was taken by a longish entrance wing and the same arrangement was used when the chapel of St. Michael at Fulda was rebuilt in 1092 (Pl 1a). In all probability the fact that, in addition to the three already existing chapels, a choir was added to the Anastasis in 1017 by the Emperor Monomachus inspired this four chapel plan of the copies, although other types may

<sup>1</sup> *Gregorii Nysseni opera*, VIII, 2, *Epistulae*, ed. G. Pasquali, Berlin, 1925, p. 76 ff. "... κύκλος ὁκτώγωνος διειλημμένος . . . κύκλον δὲ διὰ τὸ περιφερὲς ὠνόμασα τὸ ὀκταγώνον σχῆμα . . ."

<sup>2</sup> Arculph-Adamnanus, *De Locis Sanctis*, lib. I, cap. 23; lib. III, cap. 3. I am using for quotation the edition in "Itinera Hierosolymitana Saeculi IIII—VIII," by P. Geyer, Prague, Vienna, Leipzig, 1898 (Vol. XXXVIII of the *Corpus Scriptorum Ecclesiasticorum Latinorum*), p. 219 ff. (hereafter quoted as "Arculph").

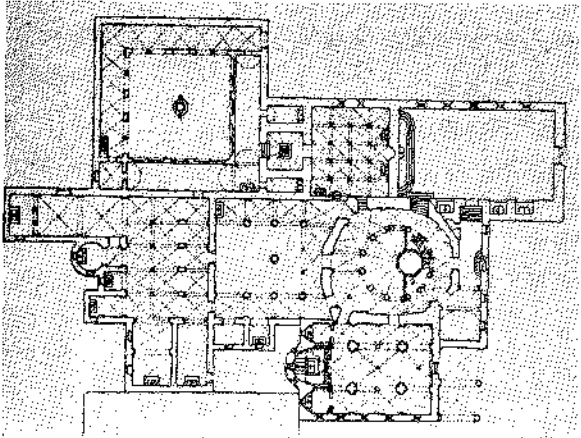
<sup>3</sup> *The travels of Sir John Mandeville*, The version of the Cotton MSS. ed. by A. W. Pollard, London, 1915, p. 54.

<sup>4</sup> Arculph, *op. cit.*, Lib. I, cap. 2, p. 231.

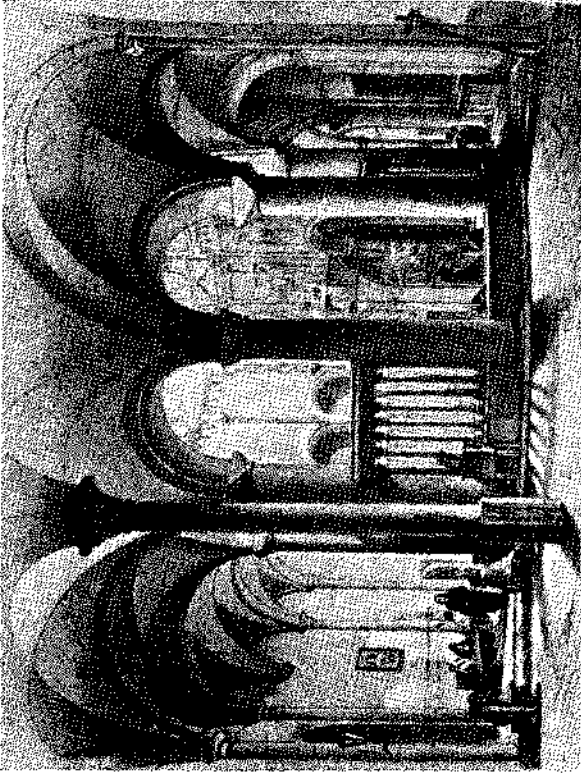
<sup>5</sup> *Vita Chuonradi Constantiensis Episcopi*, M.G.H., SS. IV, p. 429 ff., especially p. 432.

<sup>6</sup> H. Hartung, "Die Kapelle auf der Krukenburg," *Die Denkmalpflege*, 1920, p. 27 f.; R. Schultze, "Eine mittelalterliche Rundkirche im Wesergebiet," *Bonner Jahrbücher*, 127, 1922, p. 237 ff. The church was evidently dedicated to St. John the Baptist, but was never a baptistery.

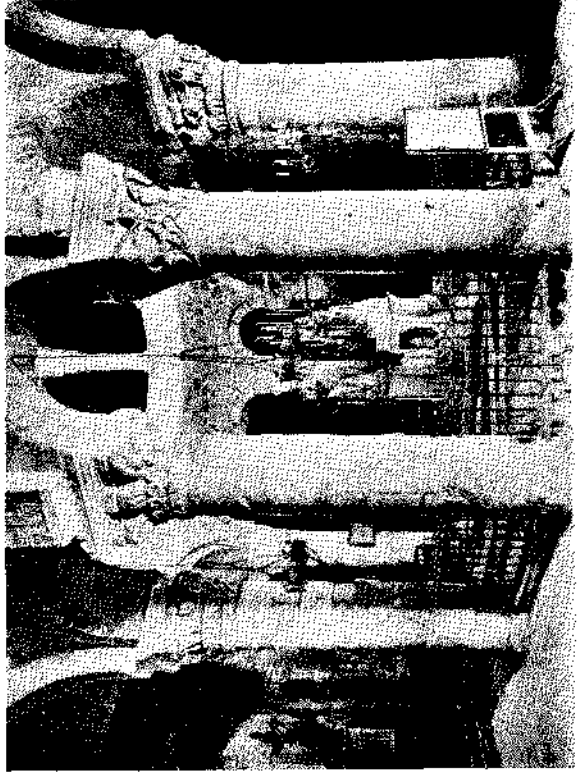
<sup>7</sup> R. Fagé, "L'église de Saint Léonard et la chapelle du Sépulchre," *Bull. mon.* 77, 1913, p. 41 ff. The fourth chapel is a modern restoration based on old remnants.



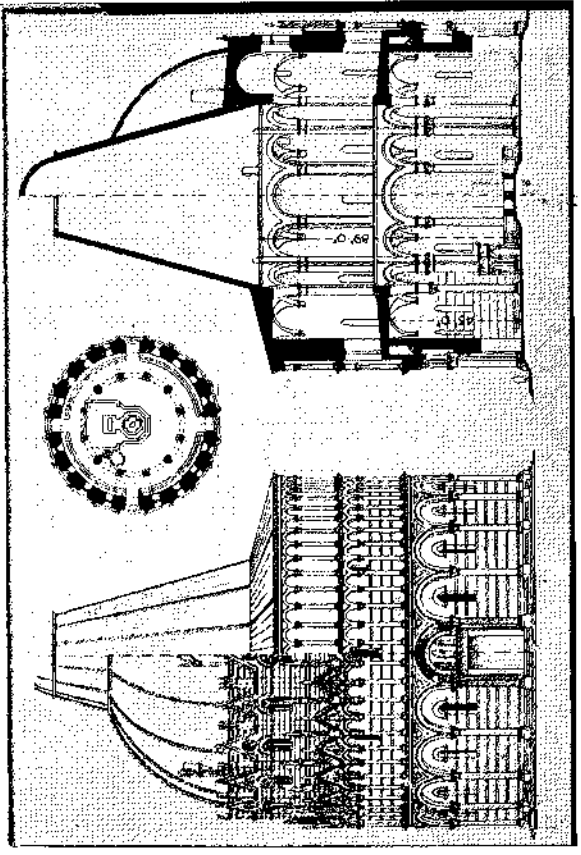
a—Sto. Stefano, Bologna (*pp.* 5, 17)



b—Sto. Stefano, Bologna (From Knight, *Echl. Arch. of Italy*, 1842-44) (*p.* 13)



c—Neuvy-St.-Sépulchre (*p.* 7)



d—Baptistry, Pisa (*pp.* 7, 31)

have exerted a collateral influence. The interpenetration of circular shapes and cross types is frequently found in Early Christian memorial churches such as Wiranshehir or the octagon church projected and described by Gregory of Nyssa; in the Occident *Sto. Stefano Rotondo* in Rome, *S. Angelo* in Perugia and the Baptisteries of *Santa Severina* and *Canosa* in Southern Italy may be quoted.<sup>1</sup>

The internal supports are sometimes exclusively columns, as for instance at *Fulda*, at *St. Léonard*, at *Cambridge*, at *Northampton* and in the church of *S. Giovanni del Sepolcro* at *Brindisi*; at *Sto. Sepolcro* at *Pisa* they are hook-shaped piers with responds, and at *Lanleff* composite piers with engaged columns. An alternating rhythm of piers and columns, though different from the particular pattern of the *Anastasis*, is found only once, in the *Pisa Baptistery* (Pl. 3d) which in its original form of 1153 ff. was clearly copied from the *Holy Sepulchre* at *Jerusalem*.<sup>2</sup> Nor is the gallery of the *Anastasis* always repeated even in those copies which have ambulatories surrounding the centre-room. Frequently, at *St. Léonard* for instance, and possibly in the 9th century chapel at *Fulda*, it is omitted altogether; the clerestory also is frequently wanting, so that the whole edifice is reduced to a one-storied structure which is quite different from the three-storied original. If on the other hand a gallery does surmount the ambulatory, its arrangement differs entirely from that in the *Anastasis*. Instead of its complicated rhythm of supports, small twin openings are sometimes arranged above each arch of the ground-floor; this is the case at *Cambridge* (Pl. 1f), at *Bologna*, and in the present edifice of *St. Michael* at *Fulda* (Pl. 1e) as rebuilt in 1092. Elsewhere, for example at *Neuvy-St.-Sépulchre*, all the gallery openings form a continuous band, supported by plain columns<sup>3</sup> (Pl. 3c). Finally, in the vaulting patterns of centre-room and ambulatory all these churches are as different as possible from one another as well as from the original.

This inexactness in reproducing the particular shape of a definite architectural form, in plan as well as in elevation, seems to be one of the outstanding elements in the relation of copy and original in mediaeval architecture. Indeed it recalls a well-known phenomenon, the peculiar lack of precision in mediaeval descriptions not only of architectural patterns but of all geometrical forms. When discussing the elements of geometry, a somewhat pedestrian but usually precise scholar such as *Isidore of Seville* becomes completely vague. A sphere is, in his words, a round figure which is alike in all its parts; a cylinder is a square figure which has a semicircle on top; a pyramid—since its name is derived from  $\pi\upsilon\rho$ —is a figure which tapers like a

<sup>1</sup> Krautheimer, *op. cit.*, p. 77 ff.

<sup>2</sup> M. Salmi, *op. cit.*, p. 16, figs. 27-29, pls. 106-109; Rohault de Fleury, *op. cit.*, p. 56 ff., pls. XVIII-XXI; see below, p. 31 f.

<sup>3</sup> R. Michel-Dansac, "Neuvy-Saint Sépulchre," *Congrès archéol.*, 94, 1937, p. 523 ff. The building was founded in 1042 or 45 "ad formam sancti Sepulchri Ierosolimitani." According to Michel-Dansac the lower part

of the *Rotunda* was built about the middle of the 11th century, the nave c. 1087, the upper parts of the *Rotunda*, including the gallery, between 1120 and 30. J. Hubert, "Le Saint-Sépulchre de Neuvy," *Bull. mon.*, 90, 1931, p. 91 ff., dates the whole *Rotunda* 12th century without giving any convincing reasons.

flame.<sup>1</sup> Even such an outstanding authority on geometry as Gerbert is quite unprecise so far as the description of geometrical shapes is concerned.<sup>2</sup> On the other hand the number of parts that make up a geometrical pattern is always strongly stressed. A square, for instance, is described as being contained within four straight lines: the number four is decisive while the relation of the four lines to one another (which we would qualify by indicating their length and by saying that they stand at right angles to one another) is simply omitted. The geometrical form is, as it were, translated into arithmetical figures.<sup>3</sup>

This particular attitude suggests a quite different approach as compared with that of the modern mind to the whole question of copying. Indeed the lack of geometrical precision is as characteristic as the 'indifference' towards precise imitation of architectural shapes and patterns. In lieu of this, other intentions seem to be at the basis of copying architecture in the Middle Ages. It would seem as though a given shape were imitated not so much for its own sake as for something else it implied: the connotations of the cross-shaped ground plan are stressed time and again in mediaeval sources, as has been frequently pointed out.<sup>4</sup> St. Ambrose in 382 was among the first to emphasize that the cross plan of the church of the Holy Apostles at Milan, which he laid out, was meant to symbolize the victory of Christ and of His cross. The same interpretation was given as late as 1122, when the church at Kappenberg was built.<sup>5</sup> Over and over it is emphasized that such and such a church was laid out "instar crucis"<sup>6</sup> or, as at St. Gall in 898 "in honore et modum s. Crucis . . ."<sup>7</sup> Yet it does not seem to matter greatly which particular cross shape was meant, whether it was a basilica plan in the pattern of the Latin *crux capitala*, as at Déas,<sup>8</sup> whether it was the pattern of the T-cross as at Bamberg cathedral (1117);<sup>9</sup> or whether a Greek cross plan was referred to as in Arculph's description of the church at the well of Jacob "quae quadrifida in quatuor mundi cardines formata extenditur quasi in similitudinem crucis."<sup>10</sup> The term may possibly have been applied even to round edifices with cross chapels, such as Meinwerk's Holy Sepulchre in Paderborn; a chapel which in 1064 was erected at Schaffhausen is described as having "capellas . . . in modum crucis per gyrum constructas . . ."<sup>11</sup> Occasionally the cross shape refers even to the pattern in which five churches are laid out within or around a city.<sup>12</sup>

<sup>1</sup> Isidori Hispalensis Episcopi *Etymologiarum sive originum Libri XX*, Lib. III, cap. XII, ed. W. M. Lindsay, Oxford, 1911.

<sup>2</sup> Migne, *Pat. Lat.* CXXXIX, c. 93 ff.

<sup>3</sup> Isidore, *loc. cit.*

<sup>4</sup> H. Graf, *Opus Francigenum*, Stuttgart, 1878, "Die Entstehung der kreuzförmigen Basilika," p. 42 ff.; Sauer, *op. cit.*, pp. 110 f., 291 f., 431.

<sup>5</sup> *Origo monast. Cappenbergensis*, Lehmann-Brockhaus, *op. cit.*, no. 669: "constructa surgit ecclesia instar crucis erecta . . . deinceps quoque victoriosissimae crucis ac reliquorum visuntur miracula."

<sup>6</sup> Lehmann-Brockhaus, *op. cit.*, passim; J.

von Schlosser, *Quellenbuch zur Kunstgeschichte des abendländischen Mittelalters*, Wien, 1896, passim; Schlosser, *Karol. Kunst*, passim.

<sup>7</sup> *Ekkehardi IV. Cas. s. Galli*, Schlosser, *Karol. Kunst*, no. 455.

<sup>8</sup> *Translatio s. Filiberti*, cap. 29, Schlosser, *ibid.*, no. 666.

<sup>9</sup> *Ebbonis vita Ottonis Bambergensis*, Lib. 1, cap. 22, Lehmann-Brockhaus, *op. cit.*, no. 115.

<sup>10</sup> Arculph, *op. cit.*, Lib. II, cap. 21, p. 270 f.

<sup>11</sup> *Notae s. Salvatoris Scafhusensis*, M.G.H., SS. XIII, p. 727, Lehmann-Brockhaus, *op. cit.*, no. 1292.

<sup>12</sup> Such a scheme is mentioned in Bamberg by Adalbertus, *Vita Heinrici II*, (mid 12th

Similarly the round (or polygonal) shape of a church evidently had some symbolical significance and again it did not make any great difference whether the ground plan of an edifice formed a regular circle or an octagon or a dodecagon or any related pattern. The circle according to St. Augustine<sup>1</sup> was a symbol of virtue, an interpretation which he based on Horace "Fortis et in se ipse totus teres atque rotundus."<sup>2</sup> It is pre-eminent among all other geometrical figures and comparable to virtue because of the conformity and concordance of its essentials, its "congruentia rationum atque concordia." According to Eigil the circle is a symbol of the Church, never ending and containing the sacraments; also it signifies to him the reign of eternal majesty, the hope of future life and the "praemia mansura quibus iusti merito coronantur in aevum."<sup>3</sup> Other interpretations of the circle continue throughout the Middle Ages down to Dante; the *Divina Comedia* is full of such references. Whatever the particular interpretation, however, it is unquestionably not so much the precise geometrical shape of a form as its general pattern and its implications which count in the opinion of the mediaeval beholder.

On the other hand it would certainly be a mistake to assume that symbolical interpretations of this kind were always the preponderant reason for giving a structure a certain shape, to make it for instance round or cross-shaped. Sometimes this may have been so—as in the case of St. Ambrose's cross church at Milan; at other times an existing plan may have been interpreted *post festum* as having some symbolical meaning.<sup>4</sup> Usually, however, the interrelations between the symbolical significance of a geometrical pattern and the ground plan of a building are not so plain. The process is of a much more intricate nature; probably the relation between pattern and symbolical meaning could be better described as being determined by a network of reciprocal half-distinct connotations. Rather than being either the starting point or else a *post festum* interpretation, the symbolical significance is something which merely accompanied the particular form which was chosen for the structure. It accompanied it as a more or less uncertain connotation which was only dimly visible and whose specific interpretation was not necessarily agreed upon. Yet as a connotation it was nearly always coupled with the pattern which had been chosen. Its very vagueness explains the variety of interpretations given to one and the same form either by one or by different authors. The situation can hardly be better expressed than it was by Johannes Scotus Erigena.<sup>5</sup> He speaks about the symbolism of the number eight, of its relation to Sunday and Easter, to resurrection and regeneration, to spring and new life. All these different connotations—he says—are ever present and "vibrate" in him whenever he thinks of eight:

century) Lib. 1, cap. 6, Lehmann-Brockhaus, *op. cit.*, no. 99.

<sup>1</sup> Augustine, *De quantitate animae*, cap. XVI, Migne, *Pat. Lat.*, XXXII, c. 1051 f.

<sup>2</sup> *Satirarum lib. II*, sat 7, v. 86.

<sup>3</sup> *M.G.H.*, SS. XV, 1, p. 231. Candidus' interpretation precedes by three hundred years the similar one of Honorius of Autun,

*Gemmae divinae*, Lib. I, cap. 147, Migne, *Pat. Lat.* GLXXVII, c. 590, see Sauer, *op. cit.*, p. 110, n. 1.

<sup>4</sup> Sauer, *op. cit.*, p. 289 ff.

<sup>5</sup> *Versus Iohannis Scotti ad Karolum Regem*, *M.G.H.*, P. L. III, p. 550 ff., particularly v. 45 ff.

Haec sunt quae tacite nostris in cordibus intus  
 Octoni numeri modulatur nabra sonorum  
 Spiritus interior clamat nec desinit unquam  
 Semper concrepitans, quicquid semel intonat annus  
 Haec scriptura docet cui rerum concinit ordo.

This brings us to the symbolical meaning of figures and numbers throughout mediaeval architecture in general and their importance in architectural copies in particular. Indeed they appear to be prominent among the elements which determine the relation between copy and original. At St. Michael at Fulda, it will be remembered, the centre-room was carried by eight columns, at Lanleff by twelve. In fact the number of eight or twelve supports seems to be almost a constituent element of all imitations of the Holy Sepulchre throughout the Middle Ages.<sup>1</sup> The chapel at St. Léonard, the Holy Sepulchre at Cambridge, the one at Northampton, the one at Pisa and S. Giovanni del Sepolcro at Brindisi all have eight supports; twelve supports are found, in addition to Lanleff, at Bologna and at the Holy Sepulchre at Augsburg.<sup>2</sup> This seems hard to explain, except on the grounds that after all in any circular building a number of supports divisible by four is easiest to arrange. While this is undeniably the case, it might be pointed out first, that divisions of central edifices into seven (Ste. Marie at Rieux Minervois),<sup>3</sup> ten (S. Lorenzo at Mantua) or eleven (Neuvy-St.-Sépulcre) bays do occur. An arrangement of six supports even is quite frequent; it seems to prevail in most Templar churches.<sup>4</sup> Second, within the group of the Holy Sepulchres eight and twelve appear to be the only multiples of four chosen for the number of supports. The real explanation may be found in the very fact that they were actually intended to reproduce an important feature of the Rotunda at Jerusalem: for it will be recalled that this Rotunda was carried by twenty supports, viz. eight piers and twelve columns. Evidently in the 'copies' either the number of the piers or that of the columns was chosen and 'imitated' regardless of the particular shape of the supports. Definite proof of this procedure is found in mediaeval descriptions of the Rotunda at Jerusalem. Arculph in describing it mentions only the twelve columns and completely omits the eight piers in the main axes. They simply did not exist in his account.<sup>5</sup>

Obviously the choice of the numbers eight and twelve from the twenty supports which were present in the prototype is again linked to the symbolical associations of these numbers within mediaeval numerology. The existence

<sup>1</sup> The 11 columns in the church of Neuvy St.-Sépulchre are probably due to a lax execution of the plan which can also be observed in other parts of the edifice: half of the vaults are out of shape and the niches are almost all different in size. It is likely that the plan originally was intended to have 12 supports; see Michel-Dansac, *op. cit.*

<sup>2</sup> The chapel is known through a number of 17th century drawings; see Dalman, *op. cit.*, p. 44 ff.

<sup>3</sup> The church at Rieux Minervois rather than being a Holy Sepulchre, as has been

assumed, was always dedicated to the Virgin; see J. de Lahondes, "Rieux Minervois," *Congrès Archéol.* 73, 1906, p. 54 ff.; M. Young de Veye, *Congrès Archéol.* 37, 1870, p. 117 ff.

<sup>4</sup> We quote only a few instances, such as the Temple in London and the one which existed in Paris until the 18th century; see *Royal Commission on Historical Monuments (England) London*, IV, London, 1929, p. 137 ff.; Viollet-le-Duc, *op. cit.*, IX, p. 14 ff.

<sup>5</sup> Arculph, *op. cit.*, Lib. I, cap. 2, p. 227 "XII mirae magnitudinis lapidae sustentant columnae."

of these numbers in the Anastasis and their numerological meaning stand in a reciprocal interrelation to one another. The importance of number symbolism in mediaeval thought is too well known to need any emphasis.<sup>1</sup> Obviously the number twelve was bound to remind any mediaeval beholder of the number of the Apostles, particularly when connected with the Tomb of the Lord; combined as it is of four times three, it linked the number of the four regions of the world with that of the Trinity whose gospel was spread by the Apostles throughout the world.<sup>2</sup> As early as the 4th century the twelve columns supporting the hemisphere of the Constantinian basilica opposite the Anastasis reminded Eusebius of the Disciples.<sup>3</sup> In the 7th century Arculph compared to their number the twelve lamps which hung inside the Tomb of the Lord, divided into three groups of four.<sup>4</sup> Likewise the number eight was bound to have a particular meaning in association with the Anastasis. It was a perfect number, which generally referred to Sunday, Easter and Pentecost, to circumcision and baptism, to regeneration and immortality<sup>5</sup> and—most important of all—to resurrection;<sup>6</sup> indeed it symbolized Christ Himself. With such connotations in mind it must have been quite a natural solution to single out the number of eight supports which actually was given by the number of piers in the Anastasis. If this number was emphasized in a structure which copied the building over the spot where the resurrection of the Lord had taken place, it was bound to hold out hope for future resurrection to the faithful.

Of course, the actual number of elements in the prototype may frequently have stimulated subsequent and divergent interpretations; thus the monk Candidus in describing the church of St. Michael at Fulda saw in the eight columns not a symbol of resurrection but of the eight Beatitudes.<sup>7</sup> The same Candidus likened both the one base of the column in the crypt of St. Michael and the one keystone of the vault to Him who is the Beginning and the End,<sup>8</sup> and one may recall that to the Early Christian period and to the

<sup>1</sup> V. F. Hopper, *Mediaeval Number Symbolism*, New York, 1938, passim; Sauer, *op. cit.*, p. 61 ff.; J. F. Doelger, "Zur Symbolik des altchristlichen Taufhauses," *Antike und Christentum* IV, 1934, p. 153 ff.

<sup>2</sup> Augustine, *In Johannis Evangelium*, XXVII, 10, Migne, *Pat. Lat.*, XXXV, c. 1619 f.: ". . . per quatuor cardines mundi Trinitatem fuerant annuntiaturi. Ideo ter quaterni . . ."

<sup>3</sup> Eusebius, *Life of Constantine*, Lib. III, cap. XXXVIII, *Nicene and Post-Nicene Fathers*, I, Oxford and New York, 1890, p. 530.

<sup>4</sup> Arculph, *op. cit.*, Lib. I, cap 2, p. 229: "in quo utique sepulchro duodenae lampades iuxta numerum XII sanctorum apostolorum . . . lucent ex quibus quattuor in imo illius lectuli sepulchralis loco inferius positae, aliae vero his quaternales super marginem eius superius conlocatae ad latus dexterum oleo nutriente praefulgent." According to the *Testamentum Domini Nostri Jesu Christi*, I, 19,

ed. I. E. Rahmani, Mainz 1899, p. 23, a baptistery should be 21 cubits long "ad praefigurandum numerum . . . prophetarum" and 12 cubits wide "pro adumbrandis iis qui constituti fuerunt ad praedicandum evangelium."

<sup>5</sup> Augustine, *De Sermonibus Domini in monte*, Lib. I, cap. IV, 12, Migne, *Pat. Lat.*, XXXIV, c. 1235; *idem*, *Epistolae Classis* II, Epist. LV, cap. XVII, 32, Migne, *Pat. Lat.*, XXXIII, c. 220; see also Hopper, *op. cit.*, p. 85; Sauer, *op. cit.*, p. 78 f. and Doelger, *op. cit.*, passim, based on numerous quotations from Early Christian and mediaeval writers, have discussed at length the symbolism of numbers in general and of the number eight in particular.

<sup>6</sup> Augustine, *De Civitate Dei*, Lib. XV, cap. XX, Migne, *Pat. Lat.*, XLI, c. 462 ff.

<sup>7</sup> Candidus, *Vita Eigilis*, *M.G.H.*, SS. XV, I, p. 231.

<sup>8</sup> Candidus, *Vita Eigilis*, *M.G.H.*, SS. XV,

Middle Ages eight was nothing but a return of one, a symbol of regeneration.<sup>1</sup> Candidus incidentally made it quite clear that his interpretations were an afterthought when he stated that he *thought* the chapel of St. Michael *could* represent Christ and the Church “. . . Christi et ecclesiae puto praesignari posse figuram.”<sup>2</sup> In the *Vita* of Benedict of Aniane it is mentioned that the three altars of the 8th century church of S. Salvator signify the Trinity, and that the Church of St. John contained seven altars and seven candelabras consisting of seven lamps or seven branches each, which had to be understood as the seven gifts of the Holy Spirit.<sup>3</sup> The symbolical value of numerology (and the instances given are merely a small selection) and the preponderance of certain numbers in architectural copies seem to be interlinked.

This number consciousness is likewise evident in the importance of measurements in architectural copies. Measurements are several times referred to as having been brought from Jerusalem for the specific purpose of laying out a copy of the Anastasis or of the Tomb of Christ. Meinwerk's chapel at Paderborn was not by any means an isolated case. At Cambrai a Holy Sepulchre was erected in 1063-64 “rotundo schemate in modum scilicet sepulchri quod est Ierosolimis. Unde et marmor superpositum sepulchro Cameracensi habet longitudinem 7 pedum quoniam et locus, ubi positum fuit corpus Domini eiusdem longitudinis existit.”<sup>4</sup> Sometimes a mere linear indication sufficed to give the measurements of the Tomb of the Lord: such is the case at Bebenhausen where as late as 1492 the sarcophagus of Christ was represented by three intersecting lines on the wall of the cloister, accompanied by inscriptions describing them as representing its length, depth and width.<sup>5</sup> This particular emphasis given to measurements is clearly shown in some of the mediaeval descriptions of the Holy Sites in Jerusalem. Arculph's report mentions expressly the length of seven feet for the Tomb of Christ and adds, that he measured it with his own hand, “propria mensus est manu.”<sup>6</sup> He gives also the approximate height and width of the tomb chamber by stating it had room for nine people—he says “ter terni” and one thinks again of the symbolical value of the number three—and that it was one and a half feet higher than a rather tall man. About 806 the *Commemoratorium de casis Dei* gives the circumference both of the outer ambulatory of the Anastasis and of its centre-room.<sup>7</sup>

1, p. 230: “Cuius tecturae princeps et conditor est Christus Jesus, fundamentum scilicet columnaque manens semper immobilis . . . in quo omnis aedificatio constructa crescit . . . Quid vero significet hoc, quod in summo uno lapide istius aedificii perfectio consummatur idem Doctor insinuat . . . , ut ille qui coepit in nobis opus bonum, perficiat usque in diem Christi Jesu, quatenus cuncta operatio nostra a Deo semper incipiat, et per eum coepa finiatur.”

<sup>1</sup> Augustine, *Epist. Classis II*, Epist. LV, cap. XVII, 32, Migne, *Pat. Lat.*, XXXIII, c. 220: “. . . ut octavus primo concinat.”

<sup>2</sup> Candidus, *Vita Eigilis*, *M.G.H.*, SS., XV, 1, p. 231.

<sup>3</sup> *Vita s. Benedicti Anian.*, cap. 26, Schlosser, *Karol. Kunst*, no. 574: “tres aras censuit subponi, ut in his personalitas trinitatis typice videatur significari. . . . In septem item altaria, in septem candelabra et in septem lampades septiformis gratia spiritus sancti intelligitur.”

<sup>4</sup> *De Sanctis Ecclesiae Cameracensis Relatio*, Auctore Monacho Valcellensi (12th century), Lehmann-Brockhaus, *op. cit.*, no. 1670.

<sup>5</sup> Dalman, *op. cit.*, p. 90 f.

<sup>6</sup> Arculph, *op. cit.*, Lib. I, cap. 2, p. 229.

<sup>7</sup> *Commemoratorium de casis Dei vel monasteris*, T. Tobler and M. Molinier, *Itinera Hierosolymitana et Descriptiones Terrae Sanctae*, Geneva, 1879, p. 299 ff., especially p. 305.



These descriptions make it quite clear that as in the case of other elements the measurements were not by any means reported *in toto*. In the same way in which only one group of supports or only one of the three stories of the Anastasis was chosen for reproduction in its copies, only one or two measurements were selected from a much greater number. The writer of the *Commemoratorium* does not report to his correspondent the measurements of the inner ambulatory nor does he indicate the height of any part of the building. This selective transfer explains also the strange use of measurements in a building such as the chapel of the Holy Sepulchre at Paderborn. Despite the elaborate statement of the chronicler that the exact measurements of the Anastasis were dispatched by special messenger from Jerusalem to Paderborn,<sup>1</sup> to a modern beholder not only the plan but also the measurements of the chapel look *totaliter aliter*. Some measurements however do appear to have been transferred from the Holy Land and used in Meinwerk's structure: the interior length of each side of its octagon is 5.80 m. and this corresponds roughly to the distance of 5.70 m., measured between the outer corners of the pairs of main piers in the east-west axis of the Anastasis.<sup>2</sup> The eight piers at Jerusalem would seem to have suggested to Meinwerk's messenger an octagon and the measurements taken between two of those piers were used as a basis for the construction of the whole plan.

This selective transfer of measurements finds its exact parallel in the way in which prototypes are generally copied in the Middle Ages. It has been pointed out before that the model is never imitated *in toto*. A selective transfer also of the architectural elements takes place. In the chapel at Constance it is only the roundness of the Anastasis which is transferred; at Paderborn the roundness and the radiating chapels are taken over. In the Sto. Sepolcro at Pisa and likewise in the chapel at Brindisi the roundness, the ambulatory, the clerestory and eight supports are reproduced. In addition to these elements the chapels of the Holy Sepulchre at Cambridge and Northampton also took over the gallery above the ambulatory. Evidently the mediaeval beholder expected to find in a copy only some parts of the prototype but not by any means all of them.

Another point will have become apparent in this connection. The parts which have been selected in these 'copies' stand in a relation to one another which in no way recalls their former association in the model. Their original coherence has been discarded. The original unity has been disintegrated and the elements have been reshuffled, as it were. To take just one instance, the twin openings of the galleries in the chapels of the Holy Sepulchre at Cambridge (Pl. 1f) and in Sto. Stefano at Bologna (Pl. 3b) seem to reproduce in an abbreviated form the gallery in the Anastasis. In the Rotunda at Jerusalem two piers always seemed to flank one column, but it evidently appeared quite natural in these later churches to reduce the more complicated rhythm to the usual form of a Romanesque twin opening and to arrange one of these twin openings above every intercolumniation of the ground floor. It is significant to observe that, as late as the 17th century, engravings of the Anastasis

<sup>1</sup> See above, p. 4.

<sup>2</sup> Rave, *op. cit.*, fig. 232 and Vincent-Abel, *op. cit.*, II, 1, pl. XIII and fig. 59.

occasionally transform the rhythm of the gallery into twin openings, although the original pattern was preserved until 1819.<sup>1</sup> Obviously all the proportions are entirely changed; the ambulatory, which in the Anastasis has hardly one-fourth the width of the centre-room, is in the mediaeval copies usually more than one-third and sometimes more than half of its width (Cambridge, Northampton, Fulda, St. Léonard). Thus in these copies centre-room and ambulatory stand in an entirely different relation to one another. Needless to say the relative vertical proportions of arcade zone, gallery and clerestory are correspondingly re-arranged.

This procedure of breaking up the original into its single parts and of reshuffling these, also makes it possible to enrich the copy by adding to it elements quite foreign to the original. Buildings which bear a general resemblance to the prototype seem to have exerted a collateral influence on the copy: at St. Michael at Fulda a crypt extends underneath the structure; a similar crypt, also surrounded by a corridor, appears in the 4th or 5th century at SS. Karpos and Papylos at Constantinople, an edifice which was likewise laid out ". . . εἰς μίμησιν τοῦ ναοῦ τοῦ τάφου τοῦ Χριστοῦ . . ."<sup>2</sup> In both instances the crypt seems to have been derived ultimately from late antique mausolea and merged with the prototype of the Holy Sepulchre.

Representations of buildings in mediaeval sculpture and painting appear to confirm the peculiar relation between copy and original in mediaeval architecture. The methods used in these mediaeval depictions have frequently been discussed.<sup>3</sup> Like the 'copies' they show the disintegration of the prototype into its single elements, the selective transfer of these parts, and their reshuffling in the copy. When in 1017 the Anastasis was represented in the Sacramentary of Henry II (Pl. 2d), one sees at the bottom of the page the lower part and the interior of the Tomb of the Lord.<sup>4</sup> Immediately above this a series of four openings with four windows in the background indicates the gallery of the Rotunda; four windows of the inside clerestory are seen higher up. Then the illustration shifts from the interior to the exterior and above these clerestory windows shows the roof of the gallery, the clerestory from the outside with nine windows, the dome and the opaiion in it; from there the representation moves back to the interior and to the ground-floor of the edifice, and *above* the dome of the Rotunda shows the upper part of the Tomb flanked by the sleeping soldiers. The disintegration of the 'model' into its single elements and the reshuffling of these elements corresponds exactly to

<sup>1</sup> See for instance C. Lebruyne, *Voyage au Levant*, Paris 1728, II, 242.

<sup>2</sup> A. M. Schneider, *Byzanz, Vorarbeiten zur Topographie und Archäologie der Stadt*, Istanbuler Forschungen, Herausgegeben von der Abteilung Istanbul des Archäologischen Institutes des Deutschen Reiches, VIII, 1936, p. 1 ff., pls. 1-3.

<sup>3</sup> A. Goldschmidt, "Mittelstücke Fünfteliger Elfenbeintafeln des VI-VII. Jahrhunderts," *Jahrbuch f. Kunstwissenschaft*, I, 1923, p. 30 ff.; D. Frey, *Gotik und Renaissance*, Augsburg, 1929, pp. XXIX and 38, while

discussing the problem extends the principles of mediaeval representations of architecture into the Gothic period which to this writer seems to be dominated by entirely different rules. On this one point I agree as fully with the brief remarks in the pamphlet of H. Rosenau, *Design and Mediaeval Architecture*, London, 1934, "Planning and architectural Design," p. 12 ff., as I disagree with the author's confused interpretation of earlier mediaeval representations of architecture.

<sup>4</sup> Munich, Staatsbibliothek, Clm. 4456, cim. 60, see Brooks, *op. cit.*, fig. 15.

the procedure which prevails in the relation of copy and prototype in actual architecture. Most of the elements of the prototype are present, but they have been entirely re-grouped.

Representations of such completeness, however, are rare. Most reproductions are limited to a few elements essential for identifying the Anastasis. The wooden casket of the Sancta Sanctorum, for example, gives the tomb as a simple tegurium and floating above it the clerestory and the dome of the Rotunda (Pl. 2e).<sup>1</sup> The same holds true, *mutatis mutandis*, for the numerous representations on ampullae, on ivories and in manuscripts.<sup>2</sup> Evidently the tomb, the circular shape of the whole and the uncommon construction of the vault were prominent characteristics and therefore sufficient to distinguish the Anastasis from any other structure.

Indeed it is these same few conspicuous features which also seem indispensable for identifying an actual architectural copy of the Anastasis; to be recognizable it has to be 'round' and it has either to contain a reproduction of the tomb or to be dedicated to it. These essential outstanding elements may be elaborated by adding to them other features such as the ambulatory, the chapels, the gallery, the clerestory, the vault, a certain number of supports and some measurements. These also are typical features of the prototype and therefore may be carried over into the copies. The model contains, as it were, a repertory of uncommon elements from which very few have to be chosen whereas others may or may not be selected.

These considerations also give an answer to the question with which we started. Apparently mediaeval writers felt perfectly justified in comparing buildings with one another as long as some of the outstanding elements seemed to be comparable. The church at Petershausen, for example, despite its entirely different plan, had some features in common with old St. Peter's in Rome; it was turned towards the west and the convent of which it formed part bore the name of Saint Peter.<sup>3</sup> Germigny-des-Prés, in spite of all differences, shared with Aix-la-Chapelle the central plan, arranged around a dominating central 'tower' and the dedication to the Mother of the Lord.<sup>4</sup> Lastly Sta. Sophia at Beneventum had nothing in common with its prototype in Constantinople but the dedication.<sup>5</sup>

But to mediaeval men the dedication of an edifice was one of its outstanding characteristics. Of course, the dedication was sometimes accompanied by a more tangible feature, for example by a reproduction of the Tomb of the Lord if the church was dedicated to the Holy Sepulchre. Such reproductions were quite frequent. It is sufficient to mention those at St. Michael at Fulda, at Constance,<sup>6</sup> at Neuvy-St.-Sépulchre;<sup>7</sup> others are still

<sup>1</sup> Parker Lesley, "An Echo of Early Christianity," *Art Quarterly*, II, 1939, p. 215 ff.

<sup>2</sup> E. B. Smith, "A Source of mediaeval Style in France," *Art Studies*, II, 1924, p. 58 ff.; C. R. Morey, "The painted panel from the Sancta Sanctorum," *Festschrift Paul Clemen*, 1926, p. 151 ff.

<sup>3</sup> See above, p. 14, n. 3.

<sup>4</sup> P. Clemen, *Romanische Monumentalmalerei in den Rheinlanden*, Düsseldorf, 1916, p. 55, n. III.

<sup>5</sup> See above, p. 2.

<sup>6</sup> See above, p. 6, n. 5.

<sup>7</sup> Hubert, *op. cit.*, see above, p. 7, n. 3.

preserved at Aquileia<sup>1</sup> and at Bologna. Similarly Sto. Sepolcro, now S. Lanfranco, at Pavia, founded in 1090, a single-naved cruciform church, contained a copy of the Holy Sepulchre "secundum longitudinem latitudinem et altitudinem";<sup>2</sup> and the church of the Trinity at Milan built in 1036, was reconsecrated in 1099 to the Holy Sepulchre in memory of the re-conquest of the Holy City, and a *similitudo* of the Tomb of the Lord was erected in it.<sup>3</sup>

At times, however, the name alone seems to have stood for all other features: the church at Sto. Sepolcro at Barletta had, as far as we know, nothing in common with the Anastasis but the name.<sup>4</sup> The dedication—sometimes supplemented by the existence of a relic from the Holy Site or by a *similitudo*, a *forma* of the venerated original—was evidently considered a sufficient stimulus to arouse all the religious associations which were connected with the prototype. Sometimes the particular manner of laying out an edifice may have formed the *tertium comparationis*. When Vratislav II in the fourth quarter of the 11th century laid the foundations of SS. Peter and Paul on the Vyšehrad at Prague, he carried on his own shoulders twelve hods of stones "ad modum quondam Constantini imperatoris" and thus built the church "ad similitudinem ecclesie Romanae s. Petri . . ."<sup>5</sup> The common element between a church which shared with its prototype only the name or the particular manner of its dedication and an architectural copy proper was evidently the fact that both were mementoes of a venerated site. The difference is rather between a more or less elaborate reproduction; and one might say that the more elaborate one only adds some visual elements to the 'immaterial' features, that is to the name and dedication. Both immaterial and visual elements are intended to be an echo of the original capable of reminding the faithful of the venerated site, of evoking his devotion and of giving him a share at least in the reflections of the blessings which he would have enjoyed if he had been able to visit the Holy Site in reality.<sup>6</sup> When in 1076 at St. Hubert an oratory was consecrated under the name of "Jerusalem" it was made quite clear that the chapel was meant to reproduce the Sepulchre of the Lord, and thus to represent it for the devotion of the faithful: "dedicavit

<sup>1</sup> *La Basilica di Aquileia, a cura del Comitato del . . . IX centenario*, Bologna, 1933, p. 55 f.

<sup>2</sup> A. Kingsley Porter, *Lombard Architecture*, New Haven, 1917, III, p. 180, n. 4. "Ecclesia S. Sepulchri in qua est forma Sepulchri Domini secundum longitudinem, latitudinem et altitudinem . . ."; Porter's translation, *loc. cit.*, text, "The church of S. Sepolcro has the same length, width and height as the sepulchre of our Lord" is erroneous; see also, *loc. cit.*, n. 4: "Ecclesia S. Sepulchri ubi est similitudo et forma Sepulchri Domini."

<sup>3</sup> Porter, *op. cit.*, II, p. 648. Neither the documents nor the plan of the edifice suggest in any way that bishop Anselm's "rebuilding" of 1099 was intended to imitate the pattern of the Anastasis.

<sup>4</sup> J. Supino, *L'Arte nelle chiese di Bologna secoli VIII-XIV*, Bologna, 1932, p. 43 f. and

p. 104, n. 29, gives a list of buildings which according to him shared only the name with the Holy Site of Jerusalem; see J. Hubert, "Notes sur l'histoire de l'abbaye de Ferrières," *Annales de la Société hist. et archéol. du Gâtinais*, 42, 1934, p. 95 ff., where it is shown that as early as the 9th century the 7th century convent of Ferrières was called "Bethlehem." Whether the 'copy' was merely a 'copy in name' remains to be carefully checked in every single case.

<sup>5</sup> *Chronicon Bohemicorum, auctore anonymo*, (before 1380), Lehmann-Brockhaus, *op. cit.*, no. 1147.

<sup>6</sup> The indulgences to be acquired, however, were rarely as extensive as those connected with the original; cf. Dalman, *op. cit.*, p. 23.

oratorium unum quod dicitur ad sanctam Jerusalem, eo quod ad modum dominici sepulchri conditum, ipsam quoque eius formam repraesentet devotioni fidelium."<sup>1</sup> With this in mind, it is easy to understand why these copies of the Holy Sepulchre are sometimes situated in cemeteries, such as St. Michael in Fulda or the Holy Sepulchre at Cambrai; obviously a copy of the Church of the Resurrection of the Lord was particularly fit to hold out to the visitor the hope of his own future resurrection. The architect of a mediaeval copy did not intend to imitate the prototype as it looked in reality; he intended to reproduce it *typice* and *figuraliter*, as a memento of a venerated site and simultaneously as a symbol of promised salvation.

Indeed "*typice*" and "*figuraliter*" are the terms used by a 12th century chronicler when describing the structures at Sto. Stefano at Bologna as a reflection of Jerusalem.<sup>2</sup> There a whole complex of churches was laid out with the particular aim of reminding the pilgrim of a number of venerated sites in the Holy Land, and throughout the centuries, despite many changes of dedication and pattern, the memento character of these edifices has remained clearly preserved.<sup>3</sup>

The present structures (Pl. 3a) date mainly from the 11th and 12th centuries, but their foundation certainly goes back to a much earlier period. At present two churches, SS. Peter and Paul to the north, and to the south the Crocefisso flank an irregular dodecagonal church, consecrated to Sto. Stefano; east of these churches is a courtyard surrounded by arcaded porticoes—the so-called atrium of Pilate—which extends towards a fourth edifice, the church of the Trinity, a shallow structure ending in a series of small chapels.

To-day only the 12th century polygon of Sto. Stefano (Pl. 3b) with its twelve supports and its galleries above the ambulatory, points clearly towards Jerusalem. Its shape as well as the 14th century Tomb of Christ in the centre

<sup>1</sup> *Chronicon s. Huberti Andaginensis*, cap. 23 (early 12th century), Lehmann-Brockhaus, *op. cit.*, no. 1776.

<sup>2</sup> The documents and the descriptions of the buildings have been amply discussed by Porter, *op. cit.*, II, p. 124 ff. The only major point on which I find myself in disagreement with Porter is the date of the church of the Crocefisso; quite apart from its Romanesque capitals, it contains, in my opinion, large parts of a 12th century structure in its south flank. A more recent but also more arbitrary discussion of the building complex, accompanied by excellent illustrations, will be found in Supino, *op. cit.*, p. 26 ff. Supino's main thesis is that, when founded in the 5th(?) century, the complex of Sto. Stefano shared with the Holy Sepulchre only the name Jerusalem. Both the 5th and 8th century buildings, which according to Supino preceded the 12th century Rotunda at Bologna, would have been baptisteries belonging to the

adjoining "cathedral" of SS. Vitale and Agricola, now SS. Pietro e Paolo; the whole present lay-out of the structures would be 12th century and only this late lay-out would imitate Jerusalem. This whole thesis is based on two erroneous assumptions; first that the original lay-out of the buildings of the Holy Sepulchre at Jerusalem corresponded to Heisenberg's reconstruction rather than to the one of Vincent-Abel which, in its general features at least, is the only one possible; and second, that SS. Pietro e Paolo was the "cathedral" (and thus could have a baptistery) an assumption which has been disproved by Testi-Rasponi, see below, p. 18, n. 1.

<sup>3</sup> Since the structures were completely altered by a thoroughgoing restoration some 50 years ago, it will be preferable to base the description on older plans, such as the one in F. Osten, *Die Bauwerke in der Lombardei*, Darmstadt 1846-54, and the 16th century plans, published by Supino, *op. cit.*

of it leave no doubt as to its significance.<sup>1</sup> Indeed as early as the 12th century a copy of the tomb is mentioned in this church which at that time bore the name of the Holy Sepulchre as well as that of Sto. Stefano. The hall opposite, now the church of the Trinity, was then called Calvary, or Golgotha or the Holy Cross; one or perhaps two crosses were venerated in this hall. Although the Atrium of Pilate was then without a name, the church to the south, the present Crocefisso, was dedicated from 1019 onwards to St. John the Baptist, like the chapel which at Jerusalem was joined to the right flank of the Anastasis. The 12th century dedications all point not to the Holy Land in general but to the buildings around the Anastasis in particular.

The group itself was called "Jerusalem" long before the 12th century, indeed as early as 887 and again in 973 and in 1017.<sup>2</sup> Moreover older architectural remains found on the site prove the existence of ecclesiastical forerunners of the present 12th century buildings; a series of chapels, the one in the centre cross-shaped, have been excavated below the 12th century ones which terminated the Hall of Calvary before the present series of chapels was built.<sup>3</sup>

Whatever may be the exact date at which the lay-out at Bologna was first designed, it is obvious that it reproduces the pattern which existed at the Holy Sepulchre in Jerusalem between 628, when the Constantinian buildings were remodelled, and the beginning of the 12th century. At that time the present large choir with its ambulatory and its radiating chapels was added to the Anastasis by the Crusaders.<sup>4</sup> Before this transformation the Rotunda to the west, the chapel of Golgotha to the south-east and the church of the Invention of the Holy Cross to the south, were linked by an open courtyard, the focus of the lay-out, with porticoes on its north and possibly also on its south side (Pl. 2c). It is this pattern which is clearly reproduced in the plan of the buildings at Bologna, and it is not particularly relevant whether Bologna was

<sup>1</sup> The present names are relatively modern. Apart from Sto. Stefano with its reproduction of the Holy Sepulchre, only the names of two buildings, the Atrium of Pilate and the Crocefisso have now some connection with either Jerusalem or the Passion of Christ. Yet these present dedications are only residuals from a large and promiscuous array of names of devotional stations which in the 16th and 17th centuries referred to all kinds of venerated sites scattered all over the Holy City and indeed over the Holy Land. Within the complex of buildings, the Valley of Josaphat (the present Atrium of Pilate), the place of the denial of St. Peter (S. Pietro in Galllicantu) and a chapel of the Annunciation were represented; a *Scala Santa* and a window, called the *Ecce Homo*, were shown inside the present church of the Crocefisso. On the other hand the 12th century titles were quite simple. There were only a few and they all referred to the buildings of and around the Holy Sepulchre at Jerusalem. The church of

SS. Peter and Paul did not form part of the convent of Sto. Stefano before 1200 (cf. Testi-Rasponi, "Note Marginali al Liber Pontificalis di Ravenna," *Atti e memorie della R. Deputazione di Storia Patria per le provincie di Romagna*, 1911, p. 391 ff.). This explains why it is the only building within the group whose name had no connection with the sites near the Holy Sepulchre. See Porter, *op. cit.*, particularly p. 129, n. 21; p. 136, n. 51; p. 138 f., n. 59; p. 141 ff., n. 61 and 63.

<sup>2</sup> Porter, *op. cit.*, p. 134 f., n. 47 and 49, "Sanctum Stephanum quod dicitur Hierusalem"; "ecclesia sancti Stephani q.v. Jerusalem."

<sup>3</sup> Porter, *op. cit.*, p. 130, n. 29.

<sup>4</sup> This addition was made between 1105(?) and 1149 when a consecration took place; but building went on until 1169. As a whole the architectural history of the Crusaders' choir is far from clear; see C. Enlart, *Les monuments des Croisés . . . II*, Paris, 1928, p. 136 ff., and Vincent-Abel, *op. cit.*

based on the actual lay-out of Jerusalem prior to the first Crusade or whether it depended on plans or maps which reproduced this earlier state.

Of course the lay-out of the complex at Sto. Stefano departs from the original like any copy of the Middle Ages. Only a few prominent parts are selected: the Rotunda, the courtyard and the hall opposite the Rotunda; in this latter the sites of the Calvary and of the Invention of the Cross—which in Jerusalem are separate sanctuaries—seem to have been merged. In addition to these elements a measurement seems to have been transferred: the distance which at Jerusalem separates the Tomb of Christ from Mount Calvary corresponds approximately at Bologna to that between the copy of the Tomb in the Rotunda and the centre of the cross-shaped main chapel at the end of Golgotha hall.<sup>1</sup> These few selected elements enabled the pilgrim to visit the Holy places in effigy and in the very sequence which they have in the prototype. He could come and venerate here the Tomb of Christ, there His Cross or the site where the Cross was found. The emphasis is on the commemorative character of the copy.

This "Jerusalem" at Bologna also seems to illustrate the practice which was followed in laying out a 'copy.' Obviously the builder of a 'reproduction' of a Holy Site would try to get the needed data about the original either by travelling himself or by sending correspondents to the site; or he would rely on plans, and study descriptions of the prototype. As a matter of fact, plans, such as the one by Arculph which was copied throughout the Middle Ages, were evidently of considerable importance, and it is most likely that it was this or a similar plan which formed the basis from which the general arrangement of the edifices at Bologna was taken. The wide use made of such plans becomes evident time and again throughout the Middle Ages. Bede, for instance, who had never been in the Holy Land, when describing Jerusalem must have drawn upon a map of the Holy City. He speaks of right and left, above and below, evidently with a map on his desk.<sup>2</sup>

It is significant that these plans and descriptions stress the very points which prevail in actual architectural copies. Arculph, when describing the Holy Sepulchre mentions first the general lay-out of the Anastasis, its roundness (its "mira rotunditas"), the three walls which enclose the centre-room and the ambulatory, the three altars in the inner aisle, the twelve columns "mirae magnitudinis" and the four doors on either side. He strongly emphasizes and carefully describes the Tomb of the Lord in all its details. In the plan which accompanies the description (Pl. 2c) the tomb is so oversized that it almost fills the entire centre-room. All the contiguous buildings are only sketched in, in his description as well as in his plan. He emphasizes what was important from the pilgrim's point of view, the Tomb of the Lord. In his conclusion he makes it quite clear that he is able to give merely a feeble

<sup>1</sup> The *Commemoratorium de Casis Dei*, Tobler-Molinier, *op. cit.*, p. 305, gives the distance at Jerusalem as 28 dexteri = 41.58 m. In reality the measurement is 41 m.; the distance at Bologna measures 42 m.

<sup>2</sup> *Beda's Liber de locis sanctis*, I-V, Geyer, *op.*

*cit.*, p. 301 ff., for instance, p. 306: "In inferiore . . . parte urbis, ubi templum . . ."; p. 309: "In hac (sc. valle Josaphat) turris est regis Josaphat . . . cuius ad dexteram de rupe . . . excisa . . . domus."

reflection of what he has seen: "Has itaque quaternarium figuras ecclesiarum iuxta exemplar quod mihi, ut superius dictum est, sanctus Arculfus in paginula figuravit cerata, dipinximus; non quod possit earum similitudo formari in pictura, sed ut dominicum monumentum, licet tali vili figurazione, in medietate rotundae ecclesiae constitutum monstretur aut quae huic prior ecclesia vel quae eminens posita declaretur."<sup>1</sup>

The difference between such an attitude and a modern approach to architecture is obvious. From Early Christian times and throughout the Middle Ages descriptions, depictions or architectural copies are nothing but a *vili figuratio*, limited to a selected number of outstanding elements; their selection is determined by and their visual aspect subordinated to the hierarchic order of their religious importance.<sup>2</sup> This attitude seems to change gradually after the beginning of the 13th century. Since then (and the association with the analytical methods used in the natural sciences is apparent) copies, depictions and descriptions strive more and more towards giving a reproduction of the original in its visible aspects. From the 15th century on this process becomes quite obvious: although scale and material may be changed in a copy or the original elaborated upon or curtailed in details, the relation between the constituent elements and their relative proportion remains essentially unaltered. At the same time, however, a gradual process of draining the edifice of its 'content' seems to begin. It is by no means a continuous development and is constantly interrupted by counter-movements, but it grows stronger and reaches its peak in the late 19th and early 20th centuries. Architectural patterns are then used regardless of their original significance, a Greek Temple for a Customs House (New York, Customs House, now Subtreasury), a Gothic cathedral for an office building (New York, Woolworth Building), a thermal room for a railway station (New York, Main Concourse of Pennsylvania Station). The modern copy with all its exactness in reproducing the whole building and with its striving towards absolute faithfulness, definitely omits the elements which were important to the Middle Ages: the content and the significance of the building.

## 2. *Baptisteries and Mausolea*

The previous discussions have led far beyond the problem of architectural copies as such. They reveal by implication that a number of elements were evidently considered essential to any edifice during the Middle Ages and that these characteristic features were different from what a modern beholder would consider of fundamental importance. Foremost among these elements is the principle that any mediaeval structure was meant to convey a meaning which transcends the visual pattern of the structure. This is so obvious and it has been so often analysed that no further discussion seems warranted. Nor

<sup>1</sup> Arculph, *op. cit.*, Lib. I, cap. II, p. 227 ff.; especially p. 230.

<sup>2</sup> In reviewing Lehmann-Brockhaus' book, W. Haftmann, *Zeitschrift für Kunstgeschichte*, VIII, 1939, p. 285 ff., particularly p. 289, has made some interesting remarks about copies which lead towards similar conclusions.



does it seem necessary to elaborate the importance of the repetition of types in mediaeval architecture.

Although the existence of such architectural series is well established, other questions remain to be answered. Time and again it becomes evident that certain architectural patterns are related to specific dedications. Churches dedicated to the Holy Cross are frequently cross-shaped; sanctuaries of St. Michael are situated on heights, in towers or on hills, and they are frequently of circular shape; templar churches are round and their roofs are often supported by six piers; churches of the Virgin also are frequently centrally planned.<sup>1</sup> In every case the pattern of the structure is linked to the commemoration of a particular Saint or of a specific object; or it is related to the use of the edifice by a specific group such as a religious order. Some kind of affinity seems to connect architectural patterns and their 'content.' Once established, the different patterns continue to follow traditional lines. Yet the question remains as to how these patterns were first associated with the particular content with which they are subsequently identified. In other words, in what way and for what reasons did these iconographical types originate?

It is proposed here to investigate one question only: Why are baptisteries round? The reason which has generally been given for their circular plan is their alleged derivation from round, vaulted rooms of Roman Baths. These rooms seemed to offer a clear prototype; they appeared to have the same shape and to be laid out for a similar use. Despite the difference between an act of simple cleanliness and a ritual immersion, the similarities have always been considered strong enough to warrant such a derivation of the baptisteries from Roman Baths.

But the question arises whether this explanation is actually sufficient for explaining the origin and the survival of the central type in baptisteries, or whether additional prototypes could have exerted any influence. Of course the connection between baptisteries and thermal rooms is undeniable although it is hardly as plain as has been sometimes assumed. Round rooms *do* occur frequently in Roman Thermae, cold water rooms, *frigidaria*, such as at Badenweiler and in the Stabian Baths at Pompeii, and hot water rooms, *caldaria*, such as those in the Thermae of Caracalla and Constantine in Rome.<sup>2</sup> Circular *caldaria* or *frigidaria* are, however, relatively rare; the majority of the round rooms in thermal establishments are either *apodyteria*, wardrobes and cloak rooms, or *laconica*, steam baths.<sup>3</sup> As such they neither contained water basins nor were they used for ablutions of any kind.

The problem is made even more complicated by the fact that the earliest

<sup>1</sup> Compare the lists of dedications which are given in: H. Otte, *op. cit.*; J. L. Petit, "Notes on circular churches," *Archæological Journal*, XVIII, 1861, p. 101 ff.; H. Bogner, *Die Grundrissdispositionen der zweischiffigen Zentralbauten*, Strassburg, 1906; F. Bond, *The Consecration . . . of Churches*, London, 1914. No far-reaching conclusions have been drawn from these lists.

<sup>2</sup> The most recent and complete collection

of ground plans of Roman Thermae is found in D. Krenker and others, *Die Trierer Kaiserthermen*, "Trierer Grabungen und Forschungen," I, 1, Augsburg, 1929.

<sup>3</sup> See for instance the *laconica* at El-Djem, Khamissa, Lambaesis and in the two Thermae of the Villa of Hadrian at Tivoli, and the *apodyteria* at Marienfels and Vieil-Evreux; illustrations in Krenker, *op. cit.*, *passim*.

baptisteries of the 3rd and 4th centuries were never round or octagonal. They were square or rectangular with or without an apse at one end, though the piscina itself was sometimes round; it is sufficient to mention the Baptistery at Dura-Europos about 231 A.D.,<sup>1</sup> the first Baptistery of the Lateran of the early 4th century<sup>2</sup> (Pl. 4a) and the 4th century Baptisteries of Aquileia,<sup>3</sup> Nesactium and Salona.<sup>4</sup> The same type is found in the 4th century (?) structure underneath the Baptistery of St. Jean at Poitiers.<sup>5</sup> Even as late as the middle of the 5th century baptisteries of Roman churches are frequently square rooms,<sup>6</sup> and this type seems to have survived in North Africa,<sup>7</sup> Greece<sup>8</sup> and throughout the Near East up to the 7th century.<sup>9</sup> One is almost tempted to say that the kinship of these early rectangular baptisteries with Roman Thermae rooms is much more evident than that of their later round successors. Like the early baptisteries the Roman *frigidarium* was often a square or rectangular room, sometimes with an apse; a basin for cold water occupied either the centre of the room or stood at one end, an arrangement which seems to be repeated literally in the Baptistery of Dura.

It is only from the middle of the 4th century onwards, that this rectangular type seems to be gradually superseded by baptisteries of circular or octagonal shape. While these differ widely in their particular pattern, they are all of one of these two forms or combine a circular shape with eight supports. The second Baptistery of the Lateran, which replaced the first rectangular one, about 350 A.D., was a round building with eight engaged columns along its interior walls (Pl. 4a).<sup>10</sup> Similarly at Salona, between 404 and 420, a polygonal structure with seven columns close to the wall replaced its rectangular 4th century predecessor.<sup>11</sup> Occasionally, for instance at S. Giovanni in fonte at Naples (about 400) and possibly in the Baptistery of Gül-bagtsche near Izmir, the room is square but covered with an octagonal vault supported by squinches.

The most frequent type, however, is that with four niches arranged in the corners of an octagon, the lower part of which is sometimes enclosed within a square. This type is found all over the Christian world from the 5th century and throughout the early Middle Ages: in Syria (Kalat Siman),<sup>12</sup> in Egypt (Menas Sanctuary),<sup>13</sup> in Constantinople (Baptistry of the Hagia Sophia),<sup>14</sup>

<sup>1</sup> C. Hopkins, *The Christian Church at Dura-Europos, Preliminary Report of Fifth Season*, New Haven 1934, pp. 249 ff.

<sup>2</sup> G. Giovenale, *Il Battistero Lateranense* (*Studi di Antichità cristiana* I), Rome, 1929.

<sup>3</sup> *La basilica di Aquileia, op. cit.*, p. 109 ff., fig. 10; p. 165 ff., fig. 18; p. 280.

<sup>4</sup> R. Egger, *Frühchristliche Kirchenbauten im südlichen Norikum*, Wien, 1916, p. 117, fig. 105.

<sup>5</sup> C. de la Croix, "Poitiers," *Congrès archéol.*, 70, 1903, p. 7 ff.

<sup>6</sup> S. Crisogono, second phase, see R. Krautheimer, *Corpus Basilicarum Christianarum Romae*, I, Vatican City, 1937 ff., p. 152; L. Fortunati, *Relazione degli scavi . . . lungo la Via Latina*, Rome, 1859.

<sup>7</sup> S. Gsell, *Les monuments antiques de l'Algérie*, Paris, 1900-01, II, p. 152 ff.

<sup>8</sup> G. Soteriu, *Αἱ παλαεοχριστιανικαὶ βασιλικαὶ τῆς Ἑλλάδος*, Athens 1931.

<sup>9</sup> H. C. Butler, *Early Churches in Syria*, 1929, *passim*, Athens, 1931; J. W. Crowfoot, *Early Churches in Palestine*, London, 1941.

<sup>10</sup> Giovenale, *op. cit.*

<sup>11</sup> E. Dyggve, "Salona Christiana," *Atti del IIIo Congresso internazionale di Archeologia Cristiana* (*Studi di Antichità Cristiana* VIII), Rome, 1934, p. 237 ff.

<sup>12</sup> Butler, *op. cit.*, p. 156.

<sup>13</sup> C. M. Kaufmann, *Die Menasstadt*, I, Leipzig, 1910, figs. 22, 23.

<sup>14</sup> E. Swift, *Hagia Sophia in Constantinople*, New York, 1940, p. 147 ff.

in Ravenna (Baptistery of the Orthodox; Baptistery of the Arians),<sup>1</sup> and in the Alpine countries (Riva S. Vitale; Novara; Lomello).<sup>2</sup> At times the pattern is slightly more elaborate: in the Baptistery of St. Mary at Ephesus,<sup>3</sup> at S. Aquilino at Milan and in those of Albenga, Fréjus and Mélas<sup>4</sup> rectangular niches occupy the main axes, semicircular niches the diagonals. Frequently this scheme is enriched by columns in front of the piers which separate the niches. At other times the pattern is reduced to a plain polygonal plan. A simple octagonal pattern appears before the middle of the 5th century at Hemmaberg<sup>5</sup> and some decades later at Grado cathedral; it survives for centuries in upper Italy in baptisteries such as those at Lenno and Oggione, both of the late 11th century.

Generally speaking it would seem that round or octagonal baptisteries were introduced into Christian architecture only after the second half of the 4th century and that they did not become common until the 5th century. Despite the differences in use which were mentioned above, these central patterns may have had some connection with thermal rooms. Octagonal plans with or without corner niches are not unusual in *Thermae*, although regular round types occur much more often; but after all, some baptisteries were round, such as that of 350 at the Lateran. On the other hand, neither octagonal nor round rooms are in any way limited to thermal architecture; indeed vaulted centralized patterns with or without niches and engaged columns were widespread in antiquity. They occur throughout secular architecture, for example as vestibules in palaces and villas such as the *Domus Aurea* or the *Villa of Hadrian at Tivoli*.<sup>6</sup> They are also frequently found in the so-called "Nymphaea" such as the *Minerva Medica* in Rome. Although it has been proved recently that most of them were really *diaetae*, garden pavilions, flanked by fountain rooms, but not containing any water basins,<sup>7</sup> their plan belongs into the same family as the vestibules and the thermal rooms. Evidently the round baptisteries form part of a large interrelated group of late antique buildings, and while the central rooms of thermal architecture are among their ancestors, other types may and, indeed, are likely to have exerted a collateral influence.

This is extremely probable in view of the fact that baptisteries display a

<sup>1</sup> C. Ricci, *Tavole storiche dei mosaici di Ravenna*, Rome, 1932; G. Gerola, "Il restauro del battistero Ariano di Ravenna," *Studien zur Kunst des Ostens*, Vienna, 1923, p. 112 ff.

<sup>2</sup> F. Reggiori, *Dieci battisteri lombaridi minori* ("I monumenti Italiani," IV), Rome, 1935. See also S. Steinmann-Brodbeck, "Das Baptistarium von Riva San Vitale," *Zeitschrift für schweizerische Archäologie und Kunstgeschichte*, III, 1941, p. 193 ff.; the issue arrived in U.S.A. only while I was revising the galley proof of this paper.

<sup>3</sup> Österreichisches Archäologisches Institut, *Die Marienkirche in Ephesos*, ("Forschungen in Ephesos," IV, 1), Vienna 1932, p. 43 ff.

<sup>4</sup> G. Chierici, "Di alcuni risultati sui

recenti lavori intorno alla basilica di San Lorenzo a Milano . . ." *Riv. Arch. Crist.*, XVI, 1939, p. 51 ff.; L. Reggiori, *op. cit.*; J. Hubert, *L'Art Pré-Roman*, Paris, 1938, p. 2 ff.; G. De Angelis d' Ossat, "Sugli edifici ottagonali a cupola nell'Antichità e nel Medioevo," *Atti del Io Congresso Nazionale di Storia dell' Architettura*, Florence, 1938, p. 13 ff. enumerates a great number of octagonal baptisteries and other structures.

<sup>5</sup> Egger, *op. cit.*, p. 68.

<sup>6</sup> See the list in De Angelis D' Ossat, *op. cit.*, p. 17 f.

<sup>7</sup> K. Lehmann-Hartleben and J. Lindros, "Il palazzo degli Orti Sallustiani," *Opuscula Archeologica* I, 1935, p. 196 ff.

number of peculiar features which certainly do not occur in *Thermae*. Often they are surrounded by a low outer ambulatory with which the centre room communicates by one or more doors. Such ambulatories are at times square in plan, a type which occurs in the 5th century Baptistery of St. Mary at Ephesus and in those at Gül-bagtsche, Riva S. Vitale and Kalat Siman (Pl. 4c).<sup>1</sup> At other times they are polygonal, as in the Baptistery of the Arians at Ravenna and in the 6th century Baptistery of Parenzo.<sup>2</sup> The 5th century Baptistery of Djemila (Pl. 4d, e) was encircled by an annular corridor covered with a barrel-vault; its walls are articulated by niches and pilasters.<sup>3</sup> A similar ambulatory, interrupted by four cross chapels and half open towards the centre-room, surrounded the dodecagonal Baptistery of Canosa; here too the ambulatory was covered by a barrel-vault, the centre-room possibly by a dome. The date of the structure is apparently 6th century.<sup>4</sup> The purpose of these corridors is uncertain, although their shape seems to suggest that they were used for regulating the access of the faithful to the interior of the baptistery and the font.

Interior ambulatories were developed at about the same time as these exterior corridors. Indeed, the Baptistery of Canosa, though relatively late, may be considered as representing an intermediary type between the patterns with outer and inner ambulatory. The best known among these latter is the Baptistery of the Lateran, the third one on the site (Pl. 4a, b), which was laid out in 432-40 and which still forms the nucleus of the present structure.<sup>5</sup> The centre-room is supported by eight columns; until 1632 it was covered by an eight-sided domical vault, surmounting a clerestory with eight large windows. An octagonal inner ambulatory covered with a barrel-vault with interpenetrations surrounds the centre-room, which is completely filled by the piscina. A similar interior ambulatory is found in the Baptistery of S. Maria Maggiore at Nocera (5th century), where it is separated from the domed centre-room by a circle of 14 pairs of columns (Pl. 4f).<sup>6</sup> Another instance of this type occurs at Butrinto at Albania;<sup>7</sup> there the centre-room was surrounded by two rings of eight columns each, whose wide spacing makes it rather unlikely that the building was vaulted. In a number of baptisteries in Southern France, for instance at Marseilles, at Riez and at Aix-en-Provence, niches are arranged in the four corners of the ambulatory.<sup>8</sup> At Santa Severina in Southern Italy four short chapels arranged in cross-shape radiate from the annular interior ambulatory; its date may be 8th or 9th century.<sup>9</sup>

<sup>1</sup> Steinmann-Brodbeck, *op. cit.*, enumerates a great number of these square ambulatories.

<sup>2</sup> D. Frey, "Neue Untersuchungen und Grabungen in Parenzo," *Mitteilungen der K. K. Zentral-Kommission*, 3. Folge, XIII, 1914, pp. 144 ff., 179 ff., especially fig. 31.

<sup>3</sup> E. Albertini, "L'archéologie chrétienne en Algérie," *Atti del IIIo Congresso, op. cit.*, p. 411 f.

<sup>4</sup> H. Nachod, "Das Baptisterium von Canosa," *Römische Mitteilungen* XXX, 1915, p. 116 ff.

<sup>5</sup> Giovenale, *op. cit.*

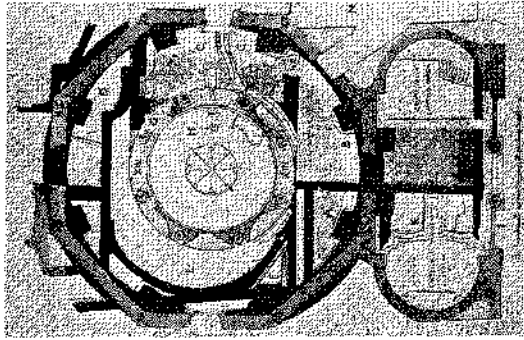
<sup>6</sup> M. Stettler, "Das Baptisterium zu Nocera

Superiore," *Rivista di Archeologia Cristiana*, XVII, 1940, p. 82 ff.

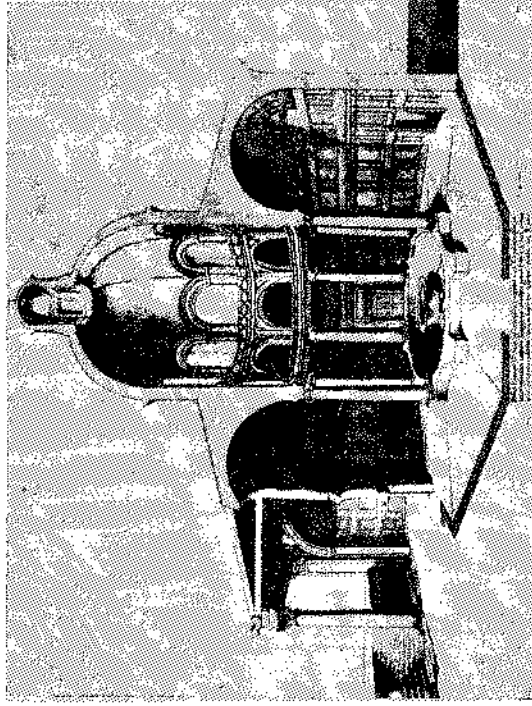
<sup>7</sup> L. M. Ugolini, "Il Battistero di Butrinto," *Rivista di Archeologia Cristiana*, XI, 1934, p. 265 ff.

<sup>8</sup> H. Koethe, *Frühchristliche Nischen-Rundbauten*, Diss. Marburg, 1928. The date of Marseilles is certainly 5th century; the Baptisteries of Riez and Aix may be somewhat later.

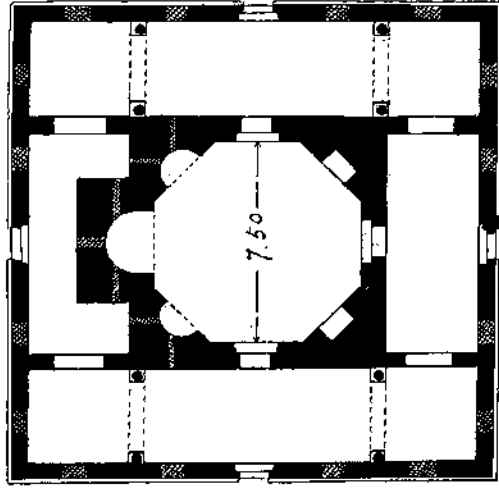
<sup>9</sup> P. Laicono, "Sul restauro compiuto al Battistero di Santa Severina," *Boll. d'arte*, 28, 1934, p. 174 ff.



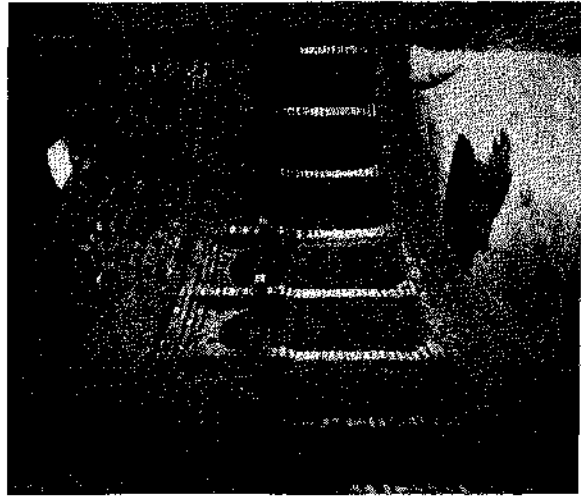
a—Baptistery, Lateran, Rome  
(pp. 22, 24)



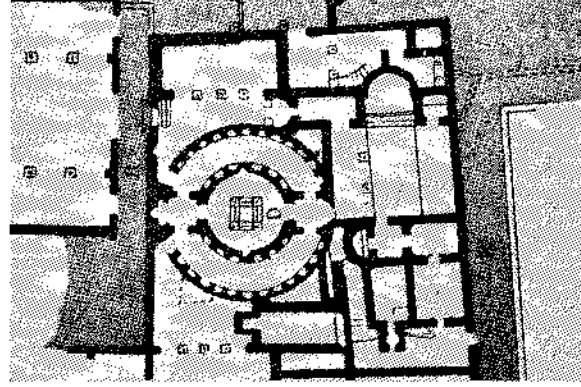
b—Baptistery, Lateran, Rome (p. 24)



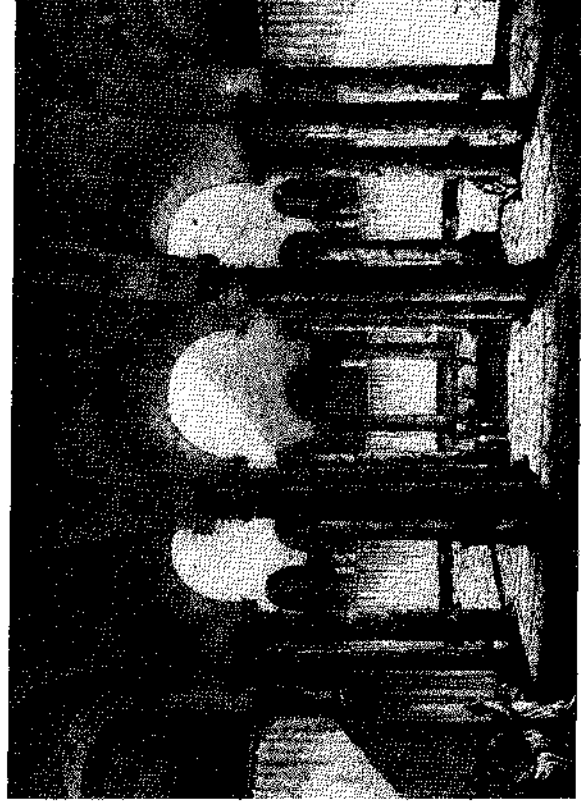
c—Baptistery, Kalat-Siman (p. 24)



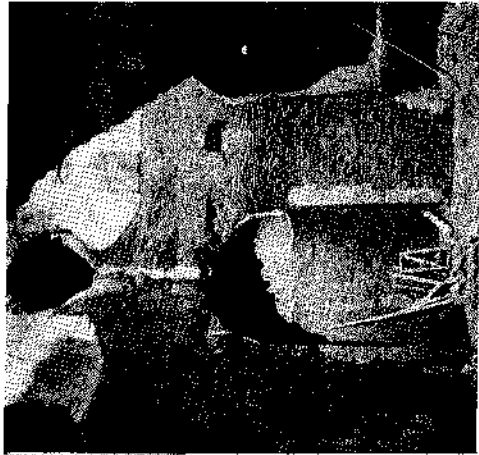
d—Baptistery, Djemila, Ambulatory (p. 24)



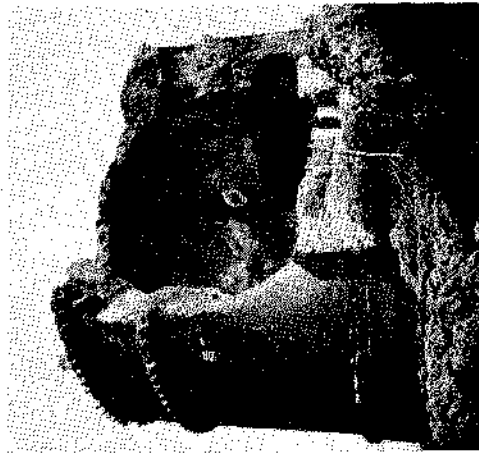
e—Baptistery, Djemila (p. 24)



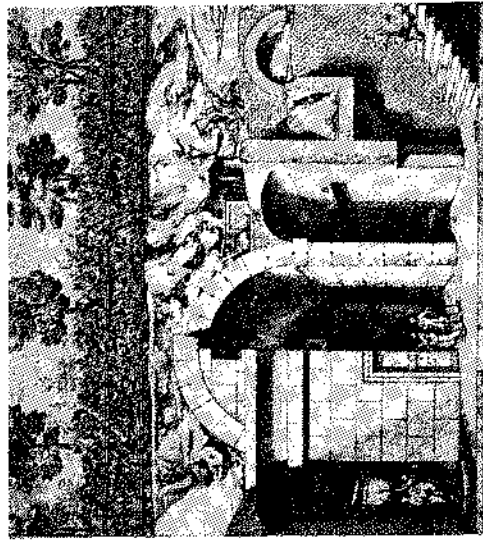
f—Baptistery, Nocera (From J. C. R. de Saint-Nou, *Voyage pittoresque*, 1781) (p. 24)



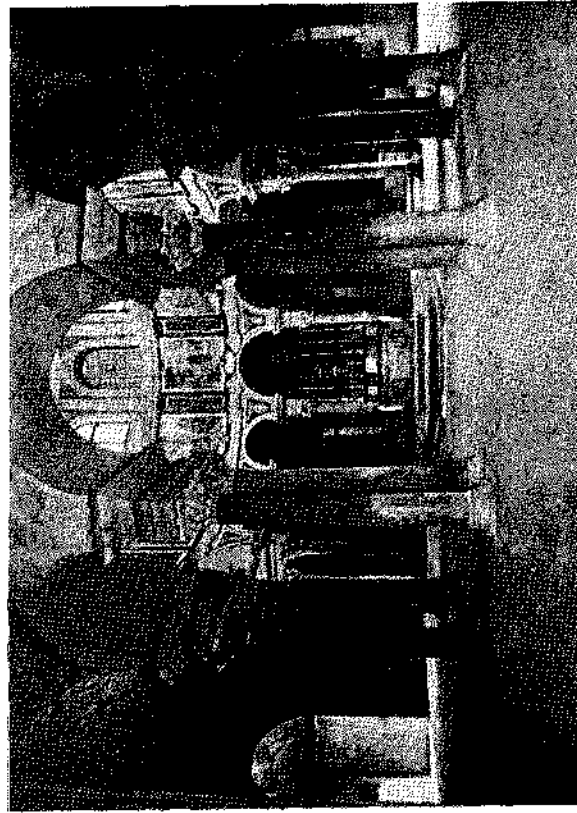
a—Mausoleum, Villa de' Gordiani,  
Rome (p. 25)



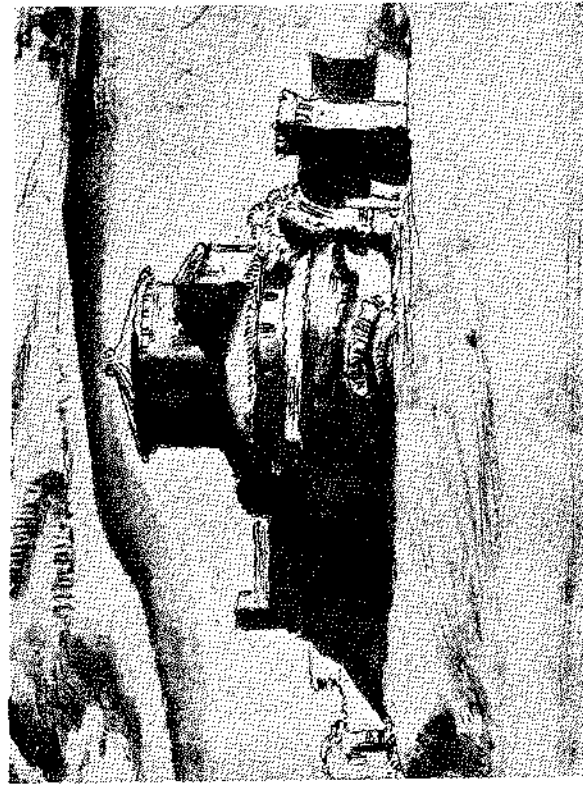
b—Mausoleum, Villa de' Gordiani,  
Rome (p. 25)



c—Mausoleum of the Vigna Cavalieri, Rome  
(From Bartoli, *Gli antichi sepolcri*, 1727) (p. 25)



d—Sta. Costanza, Rome (p. 26)



e—Sta. Costanza, Rome (From Sketchbook Giano, Bibl. Hertziana,  
Rome, fol. 15) (p. 26)

None of the round rooms in thermal establishments shows the combination of a vaulted centre-room with either an outer or an inner ambulatory.<sup>1</sup> As a matter of fact the outer ambulatory is quite rare in Roman secular architecture. The outer portico on columns in round temples, which at first glance might look similar, is really entirely different. Its openness, the lack of a vault and especially its height which normally equals the height of the cella make the dissimilarity quite clear. Indeed the combination of a vaulted centre-room with either an inner or a closed and relatively low, outer ambulatory seems only to be found in one group of Roman buildings: that is, in sepulchral architecture. Roman mausolea of the 3rd and 4th centuries use all the different patterns which occur in the baptisteries, from the simple round or octagonal plan with or without niches to the complicated forms with inner or outer ambulatories. Round mausolea with niches in the thickness of the walls or enclosed in a surrounding ring of masonry are found for instance in the Tomb in the Villa de' Gordiani (Pl. 5a, b), the so-called Tor de' Schiavi, in the Mausoleum of St. Helena near Rome, in that of the West Roman dynasty near St. Peter's, in St. George at Salonica and perhaps in the Mausoleum of Constantine at Constantinople.<sup>2</sup> In the monument of the Turcia family the niches in the four main axes protrude so as to merge circular and cross plans, with a result similar to that of the Baptistery of Canosa.<sup>3</sup> In the Mausoleum of Diocletian at Spalato columns are arranged in a double order between the wall niches and though the interior is round, the exterior is octagonal. Another octagonal tomb with a round inner chamber with eight supports along its walls was situated near Frascati.<sup>4</sup> Similar patterns must have been quite frequent. Often the tomb chamber is situated below the ground and surrounded by an outer ambulatory which may be square or semicircular or round in plan; it communicates with the inner chamber through only one or two doors. Such ambulatories are found, for instance, in the tomb of the Furia family near Tivoli, in the Mausoleum of the Vigna Cavalieri (Pl. 5c), in that of the Servilii on the Via Appia and in one of the tombs of the Via Latina.<sup>5</sup> As late as the 4th century exactly the same type occurs in the necropolis of

<sup>1</sup> On plans of Roman Thermae what sometimes looks like such an outer corridor, is really nothing but a furnace passage.

<sup>2</sup> H. Koethe, "Zum Mausoleum der west-römischen Dynastie," *Römische Mitteilungen*, 46, 1931, p. 9 ff.; *idem*, "Das Konstantins-mausoleum und verwandte Denkmäler," *Jahrbuch des Archäologischen Instituts*, 48, 1934, p. 185 ff.

<sup>3</sup> L. Canina, *Gli edifizii di Roma . . . antica e sua Campagna*, Rome, 1848-56, VI, 2, pl. CXXIII; the monument which now goes by the name of Sta. Maria della Tosse, seems to have been erected in the middle of the 4th century.

<sup>4</sup> Canina, *op. cit.*, VI, 1, pl. LXXXII. Similar patterns, sometimes of a more com-

plicated type, are frequent among the Roman monuments drawn in the 16th century, for instance, by Bramantino, *Le Rovine di Roma . . .*, ed. Mongeri, Turin 1879, or by G. B. Montano, *Le Cinque Libri di Architettura*, Rome 1621. Yet these drawings seem to be frequently "variations on Roman themes" rather than actual surveys. Thus it seems inadvisable to depend on them too much.

<sup>5</sup> B. de Montfaucon, *L'Antiquité Expliquée*, V, 1, Paris, 1719, pls. 18, 108, 111, 118. The history and the significance of these subterranean tomb corridors in pre-Roman and Roman times have been discussed by G. Weiter, "Zwei vorrömische Grabbauten in Nordafrika," *Römische Mitteilungen*, 42, 1927, p. 84 ff.



Tarragona.<sup>1</sup> The octagonal mausoleum at Blad Guitoun in Algeria is possibly even later; its round inner tomb chamber has an octagonal exterior, encircled by an annular corridor.<sup>2</sup>

This originally subterranean barrel-vaulted corridor survives, although slightly transformed, as late as the 4th century in one of the most famous Christian mausolea, Sta. Costanza in Rome (Pl. 5d, e).<sup>3</sup> From remains and from numerous 15th and 16th century drawings, it becomes evident that the building was surrounded above ground by a barrel-vaulted low outer portico on columns. The motive of an encircling colonnade may have been influenced by the circular peristyles of round temples; occasionally, though rarely, such peristyles were used for mausolea, for example in the Mausoleum of Diocletian at Spalato. But the outer portico of Sta. Costanza amalgamates the peristyle motive with that of the Roman tomb corridor; its barrel-vault points clearly to the subterranean origin of the ambulatory. At the same time an inner ambulatory covered by a barrel-vault and separated from the domed centre-room by twelve pairs of columns makes its appearance at Sta. Costanza. Thus this 4th century mausoleum unites all the different elements which distinguish the group of central baptisteries from all Roman secular architecture.

Sta. Costanza was in no way unique in the development of 4th century sepulchral architecture. Another Christian mausoleum with an inner ambulatory supported by eight columns, possibly not vaulted, existed at Tipasa.<sup>4</sup> Obviously there is no way of telling how many, if any, of the 'Temples' and 'Tombs' with inner or outer ambulatory or with both, which are recorded in 16th century drawings,<sup>5</sup> were of the 4th or 5th century. Round or octagonal memorial churches closely akin to late Roman mausolea continue to use the device of the inner ambulatory from the 4th through the 6th century, particularly in the Near East.<sup>6</sup> The combination of a centre-room with an inner and outer ambulatory characterizes the most famous among these memorial churches: the Anastasis at Jerusalem.

Thus it seems that the baptisteries share a great number of features with these Roman mausolea and particularly with their Christian variations, features which they do not share with any other Roman monuments. The third Baptistery of the Lateran can be explained only as a close relative, if not a derivative of the mausoleum of Sta. Costanza. Strange as it appears at first glance, the links between the baptistery and the mausolea are quite close both in content as well as in pattern. Undoubtedly baptism was a ritual intended symbolically to cleanse the catechumen from his sins. But this was not its only aspect: other connotations associated it with burial and death.<sup>7</sup> St.

<sup>1</sup> E. Junyent, "I monumenti Cristiani di Spagna," *Atti del IIIo Congresso*, *op. cit.*, p. 255 ff.

<sup>2</sup> Gsell, *op. cit.*, II, p. 421 ff.

<sup>3</sup> C. Cecchelli, *S. Agnese fuori le mura e S. Costanza* (Le chiese illustrate di Roma, 10), Rome, n.d.

<sup>4</sup> Gsell, *op. cit.*, II, 410 f.

<sup>5</sup> Ligorio, *Cod. Vat. lat. 3439 f. 70* "Templum Platonis et Proserpinae;" f. 25 "Templum Isidis et Serapis." See, however, above p. 25, n. 4.

<sup>6</sup> H. Koethe, *op. cit.*, *Jahrbuch des Archäologischen Instituts*, 48 (1934), pp. 185 ff., especially 198 ff.

<sup>7</sup> P. Styger, "Nymphäaen, Mausoleen, Baptisterien," *Architectura*, I, 1933, p. 50 ff. has taken a strong stand against the thesis that baptisteries had any connection with thermal rooms or with nymphaea. He suggests the possibility that a great number of baptisteries were in reality originally mausolea—for example the Baptisteries at



Paul's letter to the Romans started Christian thought on one of the fundamental tenets of baptismal mysticism: "An ignoratis quia quicumque baptizati sumus in Christo Jesu, in morte ipsius baptizati sumus? Consepulti enim sumus cum illo per baptismum in mortem: ut quomodo Christus surrexit a mortuis per gloriam Patris, ita et nos in novitate vitae ambulemus."<sup>1</sup> A mystical equation seems to be established between baptism, death and resurrection, death meaning the dying of the old Adam and at the same time a mystical imitation of the death of Christ. This two-fold equation is made perfectly clear by St. Basil in his Book on the Spirit, when discussing St. Paul's letters: "How then are we made in the likeness of His death? In that we were buried with Him by baptism. What then is the manner of the burial? And what is the advantage resulting from the imitation? First of all, it is necessary that the continuity of the old life is cut. And this is impossible unless a man be born again, according to the Lord's word; for the regeneration, . . . is a beginning of a second life. So before beginning the second . . . it seemed necessary for death to come as mediator between the two. . . . How then do we achieve the descent into hell? By imitating through baptism the burial of Christ. For the bodies of the baptized are, as it were, buried in water. . . . For there the death on behalf of the world is one, and one the resurrection of the dead, whereof baptism is a type."<sup>2</sup>

Obviously this mystical death in baptism holds out the hope of future resurrection and is at the same time regeneration and resurrection in itself. It is also a symbol of the resurrection of the Lord through whose death Christian resurrection in and through baptism becomes possible. The same idea recurs in other Patristic writers. To St. Augustine baptism is nothing but a "*similitudo*" of the death of the Lord and at the same time a death of the old Adam "since we have been baptized in the death of Christ."<sup>3</sup> According to Hilarius of Poitiers baptism is a sacrament of regeneration and of resurrection;<sup>4</sup> it is a symbol of the future resurrection of man as well as of the resurrection of the Lord, a promise of rebirth in eternity, of eternal life.<sup>5</sup> Consequently the *symbolum fidei*, professed at the occasion of baptism, strongly emphasized Christ's resurrection, His return to judge over the quick and the dead and their entering into eternal life. Leo the Great discusses the same idea in similar terms; baptism is a mystical imitation of Christ's death, of his burial and of his resurrection, "ut . . . per similitudinem formamque mysterii

Naples, at Ravenna and at Agliate. No proof is given to support these suggestions. On the other hand he vehemently objects to the possibility that the type of the baptistery as such should be derived from mausolea types. The resemblance of the niche over the baptismal font at Dura with Eastern Roman tomb types has been pointed out by Hopkins, *op. cit.*, p. 249.

<sup>1</sup> Paulus, *Epistola ad Romanos*, VI, 3, 4; cf. also *Epistola ad Colossenses*, II, 12 and Petrus, *Epistola Prima*, III, 21.

<sup>2</sup> *The book of Saint Basil on the Spirit*, cap. XV, 35, *Nicene and Post-Nicene Fathers*, VIII,

Oxford and New York, 1895, p. 21 f. Cf. R. Reitzenstein, "Heilige Handlung," *Vorträge d. Bibl. Warburg*, 1928-29, Leipzig 1930, p. 21 ff.

<sup>3</sup> Augustine, *Enchiridion*, cap. LII, Migne, *Pat. Lat.* XL, c. 256 f.; *idem*, *Contra Julianum Pelagium*, cap. V, 14, Migne, *Pat. Lat.* XLV, c. 683.

<sup>4</sup> Hilarius of Poitiers, *De Trinitate*, lib. IX, cap. 9, Migne, *Pat. Lat.* X, c. 288(265).

<sup>5</sup> Pseudo-Augustine (possibly Faustus), *sermo clxxviii*, 2, Migne, *Pat. Lat.*, XXXIX, c. 2070.

ea quae geruntur in membris his quae in ipso sunt capite gesta, congruerent; dum in baptismatis regula et mors intervenit interfectione peccati, et sepulchram triduanam imitatur trina demersio, et ab aquis elevatio resurgentis instar est de sepulcro."<sup>1</sup> As late as the 12th century Anselm of Canterbury repeats literally St. Paul's classical formula that Baptism is a symbol: "figura cuiusdam mortis et sepulturae."<sup>2</sup> From the 5th century throughout most of the Middle Ages, Easter, the day of the Lord's resurrection, was the traditional day when baptism could be lawfully administered; an alternative occasion was Pentecost, the day when the Holy Spirit was poured out and when for the first time the people were baptized. Baptism on Epiphany, the day of Christ's baptism (and originally of His nativity) was expressly forbidden by Leo the Great.<sup>3</sup>

Evidently baptism and resurrection and therefore symbolical death and burial were closely linked in the minds of Early Christians. Thus it is not surprising to find baptisteries and sepulchral architecture related to one another. Occasionally baptismal fonts were placed in catacombs; the existence of a baptistery in the catacombs of Sta. Priscilla is suggested by remains of walls and conduit pipes and on the testimony of a possibly related late 4th century inscription.<sup>4</sup> Although the connection of these remains with baptism has been contested,<sup>5</sup> a baptistery certainly existed in the catacombs of S. Pontianus. It was evidently laid out in the 5th or 6th century inside an older tomb chamber; the piscina and the steps leading down to it are preserved, as well as a 6th century fresco which represents the baptism of Christ and the stag drinking from the fountain of life.<sup>6</sup> A baptistery connected with a cemetery basilica was erected possibly as early as the 4th century in a necropolis near Tarragona.<sup>7</sup>

Occasionally tombs were placed in the baptistery proper. In one of the hymns of Prudentius, a baptistery is mentioned which commemorated the death of two martyrs who were either buried or slain on the site.<sup>8</sup> Tombs are known to have existed in the Baptistery of the Arians at Ravenna and at least one of them was contemporary with the structure.<sup>9</sup> The prohibition of burials in baptisteries issued in 578 by the Council of Auxerre only proves the existence of the habit, reveals at least that burials in baptisteries were not uncommon.<sup>10</sup> Still another link in this chain should be mentioned. It has been pointed out that the pictorial decorations of catacombs time and again depict baptism as a symbol of resurrection; on the other hand the mosaic decorations of 5th century baptisteries allude frequently to death and

<sup>1</sup> Leo Magnus, *Epist. xvi*, cap. 3, 3, Migne, *Pat. Lat.*, LIV, c. 698 (719).

<sup>2</sup> Anselm of Canterbury, *De azymo et fermentato*, cap. IV, Migne, *Pat. Lat.*, CLVIII, c. 544 (136).

<sup>3</sup> Leo Magnus, *ibid.*, c. 696.

<sup>4</sup> O. Marucchi, "La basilica papale del Cimiterio di S. Priscilla," *Nuovo Bull. di Arch. Crist.*, XIV, 1908, p. 5 ff., especially p. 48 ff.

<sup>5</sup> G. P. Kirsch, *Le Catacombe Romane*, Rome, 1933, p. 93 ff.

<sup>6</sup> Kirsch, *op. cit.*, p. 229.

<sup>7</sup> Junyent, *op. cit.*, *Atti del IIIo Congresso*, p. 283 ff.

<sup>8</sup> Prudentius, *Peristephanion*, VIII, v. 1 ff., Migne, *Pat. Lat.*, LX, c. 430 ff.

<sup>9</sup> Gerola, *op. cit.*, *passim*.

<sup>10</sup> F. W. Unger, "Über die christlichen Rund- und Octogon-Bauten," *Bonner Jahrbücher* 41, 1866, p. 52, n. 2. As late as the 9th century, the Baptistery of Santa Severina was crowded with tombs; see above, p. 24, n. 9.

resurrection, for example at S. Giovanni in fonte at Naples and in the Baptistery of the Orthodox at Ravenna.

These links may help to support the thesis that the centralized plans of baptisteries as they appear from the late 4th century onwards, had at least one of their roots, and quite an important one, in sepulchral architecture. It must have seemed perfectly natural to any Early Christian believer to use the pattern of a mausoleum for an edifice in which his old sinful Adam was to die and where he was to be buried with Christ so that he might be resurrected with Him. In the mausolea he would find a type similar enough to thermal rooms to be merged with their pattern and thus to carry over the concept of cleansing from the *thermae* into the round baptisteries; on the other hand the mausoleum type would transfer to the baptistery all the implications of burial and resurrection which Early Christianity connected with baptism. Indeed Roman mausolea would contain an element which in connection with a sepulchral monument was bound to hint specifically at resurrection: an octagonal pattern which was in itself a symbol of resurrection and regeneration.<sup>1</sup> An inscription attributed to St. Ambrose which decorated the Baptistery of Milan cathedral and which has been conserved in the *Sylloge Laureshammensis III* carefully elaborated this symbolism. In eight distichs it is pointed out that the edifice was octagonal and that its shape and that of the octagonal *piscina* corresponded to the significance of the number; for eight is the number of salvation and regeneration of the death of the old Adam and of the beginning of new life. As Doelger<sup>2</sup> has pointed out, these verses conform completely to the symbolism of numbers in the writings of St. Ambrose and of other Early Christian authors. Time and again they emphasize the character of baptism as a spiritual regeneration which is symbolized by the number eight. Baptism is a "creation from the womb of the water" a rebirth into the "spiritual octave."<sup>3</sup> This explains the predilection for octagonal patterns which prevails throughout Early Christian baptisteries.<sup>4</sup>

These patterns which connect the baptistery with the mausoleum and thus with the idea of resurrection continued throughout the Middle Ages. Examples are numerous, particularly in Northern Italy and they occur even North of the Alps, although there baptisteries were rare after the 12th century. The circular shape with eight engaged columns (Agrate Conturbia), the structure

<sup>1</sup> F. J. Doelger, *op. cit.*, *Antike und Christentum*, IV, 1934, p. 153 ff.; *idem*, "Die Inschrift im Baptisterium S. Giovanni in fonte . . ." *Antike und Christentum*, II, 1932, p. 252 ff. While Doelger strongly emphasizes the symbolical link between baptism and resurrection he derives the plan of the baptistery from thermal rooms only; see also Sauer, *op. cit.*, p. 78.

<sup>2</sup> Doelger, *op. cit.*, *Antike und Christentum*, IV, 1934, p. 153 ff.

<sup>3</sup> Clemens of Alexandria, *Stromata* IV, 25, 160, see Doelger, *op. cit.*, 1934, p. 179 f.

<sup>4</sup> Doelger, *op. cit.*, 1934, p. 182 ff. On p. 187 Doelger points out that sometimes a

hexagonal *piscina* is arranged inside an octagonal baptistery; he interprets the hexagon as symbolizing Mother Church. The pattern seems to be particularly frequent along the Dalmatian Coast and in North Africa. I should be inclined to interpret it rather as symbolizing the 'Old Adam.' Adam, since he was created on the sixth day, is represented by the number six; see Hrabanus Maurus, *De Universo*, Lib. II, cap. I, Migne, *Pat. Lat.* cxi, cap. 31, and A. Goldschmidt, "Frühmittelalterliche illustrierte Enzyklopädien," *Bibliothek Warburg, Vorträge* 1923-1924, Leipzig-Berlin 1926, p. 218 f.

with octagonal inside and round outside plan (Baptistry of Bari cathedral), the octagon with alternating semicircular and rectangular niches (Como, S. Giovanni in Atrio), the plain octagon (Lenno), the centre-room with eight columns and with octagonal ambulatory (Asti, Baptistry near S. Pietro)—these do not depart essentially from the early Christian patterns.<sup>1</sup> The octagonal shape or the design of eight supports, with their implications of regeneration and resurrection remain present in all these buildings. The same holds good, of course, for shrines which were dedicated to the Baptist, without necessarily containing a baptismal font. They are not infrequently situated in cemeteries, thus emphasizing the mystical equation between baptism, burial and resurrection. As early as the late 8th century a chapel in the cemetery of the convent of Aniane was dedicated to the Precursor of the Lord;<sup>2</sup> in the 11th century a chapel “in hon. s. Johannis baptiste et s. Nicolai et aliorum sanctorum . . .” was erected in the cemetery of Petershausen;<sup>3</sup> perhaps somewhat earlier, a new baptistry in front of the church and surrounded by tombs was built at Aquileia. Shortly before 1200 St. John in Worms was erected in the early mediaeval cemetery south of the cathedral itself, possibly on the site of an older baptistry. Also the Baptistry of S. Giovanni at Florence was constructed on an early mediaeval necropolis; it is as little known whether the present 11th century structure had an early forerunner of similar size and shape as whether the site around the church was used for burial in the high Middle Ages. Yet at least three persons of particular eminence were buried inside the baptistry: Bishop Rainerius (d. 1113), who evidently completed the main part of the structure, Bishop Johannes of Velletri and finally Pope John XXIII (d. 1419).<sup>4</sup>

The question arises whether mediaeval baptisteries always continued those early patterns whose origin can be linked to late antique mausolea in general. At times it seems they went further and actually copied the model of the Anastasis in Jerusalem, where Christ had risen from His tomb, setting the prototype of resurrection and symbolically of baptism.<sup>5</sup> Millet has suggested such a connection, not for baptisteries proper but for a group of round buildings at Constantinople, of which at least two were dedicated to the Baptist.<sup>6</sup> Unfortunately the identification of these Rotundas of St. John and their reconstruction from older descriptions is rather doubtful. However, such an influence of the Anastasis on baptisteries or on churches of St. John seems the

<sup>1</sup> Porter, *op. cit.*, passim; Reggiori, *op. cit.*

<sup>2</sup> Schlosser, *Karol. Kunst*, no. 578.

<sup>3</sup> *Casus monasterii Petrishusensis*, lib. II, cap. 16, Lehmann-Brockhaus, *op. cit.*, no. 1095.

<sup>4</sup> The tomb of Guccio de' Medici which is now inside the Baptistry was transferred there from the Piazza. The burials inside the Baptistry of Florence prove, by the way, that the prohibition of the Council of Auxerre was not of much effect.

<sup>5</sup> Unger, *op. cit.*, 25 ff. has strongly emphasized the possibility of such a link between the mediaeval baptisteries and the Anastasis. In his opinion all baptisteries were laid out

on an octagonal plan from the 7th century onwards, because they all were derived from the Holy Sepulchre; this, in his reconstruction, combined from 614 on an octagonal exterior with a round interior. Unger's reconstruction is, of course, mistaken, and consequently also his conclusions are erroneous. Yet his fundamental assumption seems to be quite correct; he is wrong in his reasoning but right in the ultimate reasons for his reasoning.

<sup>6</sup> G. Millet, “L'église ronde de Preslav,” *Comptes Rendus de l'Académie des Inscriptions et Belles Lettres*, 1933, p. 169 ff.

more natural since as early as the end of the 4th century the Anastasis played an important rôle in the baptismal rites at Easter in Jerusalem. Etheria describes the rites in detail:<sup>1</sup> the catechumens had been catechized for seven weeks in the basilica and had been instructed in the literal meaning of the Scriptures. On Palm Sunday they professed the Creed and thus became Neophytes. Then during Easter week they were led every day into the Anastasis to hear "the teachings of the deeper mystery, that is of Baptism itself. . . . There the bishop stands, leaning against the inner rails which are in the cave . . . and explains all things that are done in Baptism. In that hour no catechumen approaches the Anastasis, but only the neophytes and the faithful, who wish to hear concerning the mysteries, enter there, and the doors are shut lest any catechumen should draw near. . . . And truly the mysteries are so unfolded that there is no one unmoved at the things that he hears to be so explained." Nothing could stress more strongly the link between Resurrection and Baptism than this scene: the bishop's voice coming out of the Tomb whence the Lord had risen and explaining to the neophytes the mystical meaning of Baptism, the mystical death and the spiritual resurrection which they were to undergo during the last hours of the week. At Jerusalem at least, the significance of the Anastasis within the baptismal ceremonies is quite evident. By the later Middle Ages this connection of the Anastasis with Baptism had evidently become so close that at least in popular usage St. John the Baptist was sometimes linked as co-patron to churches dedicated to the Holy Sepulchre; a 13th century chronicler reports that after the first Crusade a church had been built at Huy "in hon. s. sepulchri Domini et b. Johannis Baptiste ob venerationem et recordationem ecclesie Ierosolimitane, que ecclesia in hon. predictorum patronorum dicitur esse fundata."<sup>2</sup> The same combination occurs about the middle of the 12th century in the dedication of S. Giovanni del Sepolcro in Brindisi. In the same way the 11th century church at the Krukenburg, copied from the Holy Sepulchre at Paderborn, was dedicated to the Baptist.<sup>3</sup> In each case the combined name may be influenced by the importance of the Order of St. John of Jerusalem to which was entrusted the care of the pilgrims who came to visit the Holy Sepulchre; indeed, the churches of this order were traditionally round and 'copied' from the Anastasis.

All these examples are somewhat tenuous proof for the connection between baptisteries and the Anastasis in Jerusalem. Yet there exists at least one mediaeval baptistery which is an actual copy after the Rotunda of the Anastasis: the Baptistery of Pisa (Pl. 3d). The structure begun in 1153<sup>4</sup> is characterized by a number of elements which clearly are 'copied' from the Anastasis. It is circular in shape and its centre-room is surrounded by an ambulatory and by an upper gallery. Four cross-shaped piers alternate with

<sup>1</sup> *S. Silviae . . . peregrinatio ad loca sancta*, Geyer, *op. cit.*, p. 35 ff., particularly p. 98 f. We are quoting from the English translation by M. L. McClure and C. L. Feltoe, *The Pilgrimage of Etheria* (Translations of Christian Literature, ser. III, Liturgical Texts), London and New York, n.d., p. 90 ff., particularly

p. 94.

<sup>2</sup> *Chronica Albrici monachi Trium Fontium*, *M.G.H.*, SS. XXIII, p. 815, Lehmann-Brockhaus, *op. cit.*, no. 1787.

<sup>3</sup> See above, p. 6.

<sup>4</sup> Rohault de Fleury, *op. cit.*, p. 56 ff., pls. XVIII-XXI; Salmi, *op. cit.*

eight columns so that twelve supports carry the arcade on the ground-floor; on the upper floor, four stronger alternating with eight weaker piers, repeat exactly the rhythm of the lower arcade. The uncommon vault of the centre-room, a steep conical roof, originally truncated and open at the top, is still preserved beneath the 14th century dome. As Rohault de Fleury has already pointed out, this roof in itself clearly proves the architect's intention of copying the Rotunda at Jerusalem; so does the interior arrangement with its groin-vaulted ambulatory and gallery, and its two-times-twelve supports. The departure from the number eight which had been traditional in baptisteries, and the replacement by twelve supports points clearly to the influence of a new prototype. Even the alternation of piers and columns in the Anastasis is repeated though it is accomplished by changing the original rhythm of two piers and three columns for each quarter circle into the simpler one of one pier and two columns. As in any mediaeval copy, the model has been broken up into its single elements; a selection of them has been made and the selected parts have been re-arranged, possibly under the collateral influence of related structures. The rhythm of supports at Pisa might have been co-inspired by the more refined pattern of pilasters and columns on the ground floor of the Baptistery of Florence.

There cannot be any doubt that the Baptistery of Pisa was intended to be a copy of the Anastasis at Jerusalem. The question is whether such an 'imitation' of the Anastasis in a baptistery is an isolated case. It may be well-nigh impossible to give a definite answer to this question. Still, there is at least one element to be found in a great number of 11th and 12th century baptisteries which looks suspiciously as though it had been inherited from the Anastasis: from the 11th century onwards galleries make their appearance in baptisteries, starting with the small village Baptistery of Galliano di Cantù early in the 11th century. Half a century later at S. Giovanni in Florence, the grandest of all the buildings of this type, narrow dwarf galleries are arranged above the rhythmical orders of pilasters and columns on the ground-floor which would seem to have been inspired by the Pantheon.<sup>1</sup> The same motive is taken up in the Baptisteries of Cremona (1176) and of Parma (1196), the latter being obviously a more distant derivative of Florence. Fully developed dwarf galleries appear late in the 11th century at St. Martin in Bonn, which was laid out behind the cathedral, possibly in place of an older baptistery, and about 1130 in the Baptistery of Arsago. Obviously galleries had no liturgical meaning and could be of no practical use in baptisteries; and since the motive of galleries becomes general throughout ecclesiastical architecture in Lombardy as well as in the Rhineland during the late 11th and the 12th century it may well have been introduced into baptisteries for design's sake only. Still an influence from the Anastasis need not be eliminated outright. After all, the appearance of galleries in baptisteries occurs at a time when they were also introduced into copies of the Holy Sepulchre, such as St. Michael at Fulda, Sto. Stefano at Bologna and the Holy Sepulchre at Cambridge. Thus these baptisteries take up their 'unfunctional' galleries and dwarf galleries at the

<sup>1</sup> W. Horn, "Das Florentiner Baptisterium in Florenz, V, 1938, p. 99 ff. *Mitteilungen des Kunsthistorischen Instituts*

very time when the Anastasis exerted more and more of an impact on the imagination of laymen and architects throughout the Occident.<sup>1</sup> We do not intend to give any definite answer to this question. But it may be well to remember that many of the 'approved' copies of the Anastasis which were erected "instar dominici sepulchri Ierosolimitani" resembled their prototype no more than did the Baptistery at Florence.

<sup>1</sup>J. Hubert, *op. cit.*, *Bull. mon.* 90, 1931, p. 91 ff.