

THE INFLUENCES OF THE HOLY SEPULCHRE  
ON ARCHITECTURE IN THE MEDITERRANEAN BASIN  
FROM THE FOURTH TO THE END OF THE SEVENTH CENTURIES

by

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## ABSTRACT

The Holy Sepulchre in Jerusalem was built by Constantine from 327 to 335. It consisted of a basilica, the Martyrion, and a small edicula over the tomb of Christ, known as the Tegurium. By the end of the fourth century a Rotunda was built over the edicula. This complex was quite unique in Christian architecture from the fourth to the end of seventh centuries but this paper reveals that it was not a popular architectural group to serve as a model for other churches in the Mediterranean basin. Only one building, the Cathedral of Ravenna, built by Ursian and dedicated to the "Resurrection", can be termed a "copy", and it only duplicated certain architectural features from the Martyrion, while the Rotunda was completely ignored.

Only three buildings, all rotundas, seemed to have been derived from the Anastasis Rotunda; S. Stefano Rotondo in Rome, SS, Karpos and Polykarpos in Constantinople and the moslem Dome of the Rock in Jerusalem. Although Medieval copies of this building were octagonal in plan, no octagonal copies of the Rotunda were constructed before the moslem invasions in the seventh century.

No architectural reproductions of the Tegurium are known but the building may have served as a model for reliquaries.

The ninth century complex of S. Stefano (San Sepolcro) in Bologna duplicated the group of buildings at the Holy Sepulchre and, although a number of fifth to eighth century church complexes have buildings grouped in a similar fashion, no copies

from the Byzantine period are known.

Buildings on the site of Christ's tomb were examined in turn by studying illustrations and descriptions of them. Churches throughout the Mediterranean basin were then compared to the restorations of the buildings in Jerusalem to determine if there were any resemblances. If a building only duplicated a number of architectural features or the dedication from the Holy Sepulchre it was considered to be a derivative. To be a copy, both features had to be evident in the secondary structure.

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## INTRODUCTION

The Holy Sepulchre, built in Jerusalem over Christ's tomb, was one of the most important church complexes to be constructed in the Byzantine Period from the fourth to the eighth centuries. Built in the fourth century as a martyrium or monument to the death and resurrection of Christ, the Holy Sepulchre, though altered today, marks the site of the tomb cave. For sixteen centuries the tomb and Calvary have been protected for visits by pilgrims, and, to this day, Christians from around the world, continue to travel to the Holy Land just to see this great Christian monument.

For the Christian world of the fourth century it not only stood as a symbol of Christ's victory over death but also of the victory of Christianity over years of persecution by the Romans. Legalization of Christianity in 313 not only permitted the adherents to practise their faith without fear of punishment, but they could now build proper sanctuaries in which to worship their God.

It was Constantine the Great who was responsible for finding the tomb and having a church built around it, but there is some reason to believe that his actions were not as devout as the construction of such a great monument might suggest. His struggle to power was not easy and upon becoming sole emperor he was faced with a major task of unifying the empire.

Since Christianity was popular and widespread, its legalization would, and did, help secure his political position.

In the process of gaining power, Constantine had to defeat Emperors Maximian and Galerius. Achieving that, he defeated Maximian's son, Maxentius, at the Milvian Bridge in 312. Even then he was not sole ruler, not until the death of Licinius in 324. After that Constantine was glorified by both the religious and the secular elements of society as a great ruler.

Shortly after Constantine had gained power, he sought to mark the great relics and sites of Christendom. One of these sites was the tomb, another the place of Christ's birth and a third, the place of Christ's ascension. Construction on these sites probably began in 327 and by 335 the Holy Sepulchre was ready for its dedication. Believers must have come from all parts of the Christian world for September 13, 335, to see the great event.

Of course there was no way of knowing if the tomb of Christ had been found when Constantine's workmen first discovered it. For two centuries the cave had been covered by a pagan temple. In the process of destroying this temple the cave was found below the ground and was declared to be the one used to contain Christ's body. It may very well have been so. It seems unlikely that the Christian community in Jerusalem would have forgotten such a sacred spot and yet, even today, the authenticity of this cave as the tomb of Christ is disputed.

Once the tomb was marked by the Holy Sepulchre, it was recognized as the spiritual centre of the Christian faith, as

well as the physical centre of God's universe. From the seventh to eleventh centuries the exact centre of the universe was marked by a spot known as the "Omphalos" on the church floor between the Anastasis and the Martyrium (Fig. 31c). So it was that Christians throughout the world looked to Jerusalem as the centre of their physical and spiritual worlds.

It is not difficult to understand then, why the Holy Sepulchre was such an important building in the Middle Ages or why the Crusades were launched to free it from the Arabs. It was during the Medieval Period that churches were built throughout Europe intentionally designed to copy the church in Jerusalem. Richard Krautheimer in an article titled "Introduction to an 'Iconography of Mediaeval Architecture'" published by the Warburg and Courtauld Institute in 1942 has identified many of these copies derived from the Holy Sepulchre and particularly from the Anastasis. His research, however, does not consider the influences of the Holy Sepulchre on architecture in the Mediterranean area prior to the eighth century. This then, is the reason for undertaking the present study.

Because the Holy Sepulchre was such an important church in the Christian world and because church construction after the legalization of Christianity was flourishing throughout the Empire it would seem that architects would have looked to Constantine's church as a model for their own designs and plans. Hopefully, this paper will help clarify this theory.

The period of time under consideration extends from

the construction of Constantine's church in Jerusalem to the end of the seventh century when most of the Christian world was in the hands of the moslems. Jerusalem had been occupied by them in 637 or 638 and by the middle of the century Syria, part of Asia Minor and Upper Mesopotamia, Palestine, Egypt, and part of the Byzantine provinces in North Africa were under Arabian occupation. The northern borders of the Byzantine Empire were also jeopardized, not by Arabs but by Slavs and Bulgarians. By the end of the seventh century church construction had come to a near standstill and the Christian world was suffering a period of serious contraction in size.

The geographical area covered by this paper ranges from the coast of France to the heart of the Middle East. The borders of the Byzantine Empire act as a guide line particularly in the regions around the Mediterranean basin, and in the east. Syria, Jordan, Mesopotamia, Capadocia and surrounding areas are included. Except for special references, northern France, inland Spain and Europe have been excluded.

The Holy Sepulchre complex will be discussed in sections beginning with the first building on the site, the Tegurium. After considering the Martyrion and the Anastasis the entire complex will be compared with a number of church complexes found throughout the Mediterranean area. A brief examination of each part of the Holy Sepulchre will be undertaken with reference to descriptions and visual representations to determine how the public generally visualized that part of the building complex in Jerusalem. Other buildings with

similar architectural features will be considered together with references to churches claimed to be copied from the church in Jerusalem.

Unfortunately many of the structures studied in the paper do not exist above the foundation level. A study of church elevations therefore is largely speculative. Also hampering a study of this type is the lack of documentation to either confirm or negate theories of copies put forth. But lack of supplementary evidence does not necessarily mean that a building which appears to be a copy is, in fact, not.

## CHAPTER I

### THE TEGURIUM

The Tegurium of the Holy Sepulchre was a small chapel-like structure built by Constantine's architects over what they believed to be the Tomb of Christ.<sup>1</sup> That building no longer exists. It was destroyed in 614 by the Persians. The one which occupies the site today was constructed in the eleventh century after a seventh century reconstruction of the original was destroyed by the mad moslem khalif, Hakem (Fig.1). Since that reconstruction in the eleventh century repairs have been made periodically but all of the buildings presently on the site are in need of repair. The most recent disaster was a fire in 1808 which burnt the dome of the Rotunda and caused it to fall on the Tegurium destroying the cupola or lantern which stood on top.<sup>2</sup>

Prior to the legalization of Christianity by Constantine, a pagan temple had covered the spot which is now occupied by the Tegurium. After Constantine had become sole monarch and had recognized the Christian religion, he ordered the temple removed so that nothing of it would remain. While carrying out his orders a cave was discovered below the ground level. It was immediately heralded as the Tomb of Christ. His Tomb had traditionally been associated with the site, but whether this was actually the one is still a matter of conjecture.<sup>3</sup>

Excavations were begun immediately in 327 to remove the earth and stone around the cave. Thus a stone shell was exposed to the elements. To protect it a small rectangular building called a tegurium or edicula was built around it to act as a reliquary for the sacred relic. Constantine seems to have spared no expense to decorate its exterior. His architects added columns and architectural motifs to its walls to enhance what would otherwise be a plain stone box. Eusebius saw it when the Church of the Holy Sepulchre was being dedicated in 335. Included in his description of the buildings constructed at the Holy Sepulchre, recorded in his Life of Constantine, Eusebius makes the following reference to the Tegurium:

This first, as chief part of the whole (church), the liberality of the emperor beautified with choice columns and with much ornament,<sup>4</sup> decorating it with all kinds of adornments.

Eusebius does not mention the ground plan of the edicula but according to its representation in a number of illustrations from the fifth and sixth centuries the base was square or rectangular. The depictions of the Tegurium on a number of ivories are probably derived from the actual structure. Unfortunately it is not known where the ivories were carved, but, because they are all so similar, the artists must have seen the Tegurium or carefully drawn sketches of it. These ivories are presently located in different collections throughout Europe. At Notre Dame-la Major in Arles there is a small ivory belt buckle (2" x 4 1/8") which was supposed to have belonged to a Bishop, St. Cesarius, who died in 542 (Fig. 2).<sup>5</sup> On it the Tegurium is shown as a small rectangular building with



a lantern on top. Two soldiers lean on their lances, apparently asleep. The two soldiers also appear on the British Museum ivory.<sup>6</sup> Again the Tegurium is shown as a rectangular or square structure but here the lantern is solid and built of stone (Fig.3). The columns referred to by Eusebius are also shown. No columns or pilasters are shown on the Trivulzio ivory in Milan but again it would seem that the Tegurium was rectangular (Fig.4).<sup>7</sup> The enclosed lantern of brick appears again together with the two soldiers in the upper half of the panel. A fourth ivory is kept in the National Gallery of Munich. Again the Tegurium is rectangular, with a very ornate classical lantern (Fig.5).<sup>8</sup> The lantern on this last example resembles the top of an Italian monument known as "La Conocchia" (Fig.6).<sup>9</sup> Probably a Roman building such as this was a forerunner of the Tegurium in Jerusalem.

The west end of the modern Tegurium is semicircular, but it is not known if the original followed the same plan. This feature may have been added by Monomachus in 1048 when the Tegurium was rebuilt (Fig.7).<sup>10</sup>

The earliest plan of the Holy Sepulchre and Tegurium was made in the late seventh century by a French monk, Arculf. On his plan the Tegurium is shown as a circle inside a number of concentric circles intended to represent the Rotunda. Inside the Tegurium circle, the sepulchre, in which Christ's body was laid, was represented by a rectangle - but there is no suggestion of a rectangular shaped Tegurium whatsoever! (Fig.8a,b,c).

The representation of a rectangular structure by a circle certainly seems to be an anomaly. But probably Arculf saw the ciborium around the Tegurium when he stood inside the Rotunda and subsequently identified that part of the church as one unit when he dictated the plan to his scribe, Adamnanus. This unit was referred to by him as the "memoratum rotundum tegurium" - the round tegurium.<sup>11</sup> The ciborium proper was not mentioned in his text, but, according to E. Baldwin Smith, the ciborium was frequently called a tegurium and, therefore, it is likely that Arculf meant the round ciborium by the words "rotundum tegurium" - not a round edicula or tegurium containing the Tomb.<sup>12</sup>

Arculf did not originate this ciborium-tegurium concept. It appears on an illustration dated to the sixth century painted on the top of a reliquary in the Sancta Sanctorum of the Lateran (Fig. 9).<sup>13</sup> Here the polygonal ciborium is covered by a pyramidal tent roof with the figure of an angel to the right and two women to the left. Above it is the dome of the Rotunda with a number of windows in its drum. In the middle of the opening between the two centre columns is an altar which was placed before the entrance of the cave.<sup>14</sup> Between the columns on each side of the entrance a solid wall is shown rising half-way to the top. The other half is closed with lattice-work to protect the Tegurium but it still permitted the pilgrims to see inside.

This type of ciborium-tegurium concept was common to illustrations of the Tomb of Christ. Basically the architect-

ural elements which were used were: four columns, arches or lintels on the columns and a canopy. But all of them do not necessarily appear in the same picture. The four columns however, seem to be the most common feature used. Two exceptions are the Rabbula Codex of 586 (Fig. 10), and a silver plate in the Hermitage from the sixth or seventh century (Fig. 11).<sup>15</sup> Apparently both of these examples originated in Gyria. The canopy of the latter, composed of a triangle circumscribing a semicircle, is just the opposite of a canopy shown on a glass medallion at Trier (Fig. 12).<sup>16</sup> But in all other cases four columns - placed in such a way as to suggest an octagon - hold up an umbrella dome or tent canopy. A rich fabric seems to have been stretched loosely over ribs or ropes drawn to a peak at the centre. Examples of such illustrations appear on a coptic censor (Fig. 13), a stone relief (Fig. 14), and several ampullae from Monza (Fig. 15b, c, e), all from the sixth century. The lantern on the Arles buckle also fits into this group (Fig. 2). The columns on the censor, the stone plaque and the ivory from Arles all suggest that the supports were stone. They are thicker than the columns on the ampullae, but capitals were shown on both sets. There is only one illustration of a ciborium without a canopy - on an ampulla in the abbey of St. Columban at Bobbio in the province of Piacenza (Fig. 15d). The omission, in this case, may have been due to a lack of space on the ampulla, or possibly, the canopy may have been removable. But not all of the ampullae from the Holy Land show the ciborium.

Some show only the rectangular tegurium (Fig.15a,b). At S. Apollinare Nuovo in Ravenna, a sixth century mosaic of the Tomb shows the ciborium very distinctly as a circular structure (Fig.17).<sup>18</sup> The canopy here is more suggestive of a dome than a tent and the base is obviously circular. It was probably conceived by the artist as a small circular temple rather than a ciborium with a fabric cover. But here once again, the altar is shown between the centre columns. The fact that it is located behind the columns proves that this round structure is the ciborium not a modified tegurium because the altar was located at the Tomb entrance between the Tegurium and the ciborium. All of these illustrations, then, belong to the same group as the Sancta Sanctorum reliquary and Arculf's circular plan.

The ancestry of this ciborium-tegurium type of illustration is both Roman and Jewish. Roman coins minted by Divus Romulus (Fig.18a) and other important Romans (Fig.18b-e), show small domed structures with four columns on their faces. Circular teguria also appear on Roman reliefs (Fig.18f). Apparently this type of structure was quite popular in Roman times. In Jewish art there is a "sacred portal" tradition which is represented by a richly decorated set of doors below a triangular or semicircular gable mounted on two or three columns (19a,b).<sup>19</sup> Both of these traditions seemed to anticipate the ciborium-tegurium illustrations of the Tegurium made by artists in the sixth and seventh centuries.

The exact date of the ciborium's construction is not known, but it appears in descriptions of the Holy Sepulchre as early as ca. 530. A reference in the "Breviary" or "Short Description of Jerusalem" at that time stated that "Above the sepulchre itself is a vaulted roof of silver and gold" which, according to the text, was surrounded by gold (Super ipso sepulcro transvolatile argenteum et aureum et in circuitu omne de aurum).<sup>20</sup> Apparently in Rome, at the Lateran baptistry, a ciborium was installed by Pope Sixtus in ca. 432-440.<sup>21</sup> Possibly its erection preceded that of the Holy Sepulchre, but most likely both were built at the same time. The ciborium in the Holy Sepulchre may have been an addition to the Tegurium in preparation for the hundredth anniversary celebrations in 435.

But even this early date is not early enough to predate the construction of the ciborium-tegurium type church at Ephesus, dedicated to St. John (Fig.20).<sup>22</sup> This small church was built in the fourth century, possibly even before the "Peace of the Church", according to André Grabar. In the fifth century it was expanded by the construction of four arms - much like Arculf's plan of the martyrium of Sichem (Fig.21).<sup>23</sup> This martyrium at Sichem also seems to have had a ciborium in the centre of the crossing. But other small structures such as these need not have depended on the Holy Sepulchre for a model if one, indeed, were necessary. The ciborium was quite a common feature over sacred relics, altars, and baptismal fonts. An architect could have found such a

structure close at hand to serve as a model if need be - certainly closer than the Holy Sepulchre. In any case there is no example of a ciborium or ciborium-tegurium type of structure which could be definitely called a copy of the Tegurium.

Illustrations of the Tegurium proper may be divided into two groups; the single story cabin type common to the ampullae (Fig.15) and the two story type typical of the ivories mentioned earlier (Fig.2-5). The cabin type is essentially rectangular with a gable and lattice-work on both sides of a central opening believed to be the door. Besides appearing on the ampullae kept at Monza and Bobbio, there is also a cup from Carthage showing this type of Tegurium. The facade illustrated on the cup has a gable end, a central opening, and unlike the ampullae, four columns on the front. (Fig.16)<sup>24</sup> Unlike any other representation of the Tegurium this illustration on the glass cup shows a side of the building. Apparently the edicula at Jerusalem had no architectural features on the sides, but, of course, this may not be absolutely accurate. In any case there are no paneled doors on these cabin type illustrations; not like the doors on the ivories which seem to be made of wood or metal. The two story type on the ivories has been referred to by Neil Brooks as the "western temple type" because of its resemblance to temples in Italy.<sup>25</sup> The association of this type with "La Conocchia" in Italy has already been made. But not all of the architectural features shown on the different ivories are identical. For example, the lantern drums of the British

Museum (Fig.3) and Trivulzio (Fig.4) ivories appear as if they were designed to be out of doors. Both of them were apparently constructed of cut stone, with windows covered with a translucent or transparent material. The roofs appear to be covered with lead. Whereas the lanterns on the other two examples seem to have been constructed for indoors. Particularly the Munich ivory with its finely finished marble cupola or lantern(Fig.5). And common to this ivory and the Arles buckle (Fig.2) are the columns shown around the lantern. The fact that a brick wall can be seen behind the classical work on the Munich lantern suggests that the old structure shown on the British Museum and Milan ivories was covered by later renovations. Another feature which distinguishes the Munich and Arles ivories from the other two is the door which stands slightly ajar. This detail seems to have been adopted from the Roman memoria on early coinage (Fig.18a,c), but it was not repeated on the Munich and Arles ivories. It does not appear again until 586, and then in the Rabbula Codex (Fig.10).

If renovations were made to the lantern, they likely date to the reign of Theodosius II, the Younger (408-450).<sup>26</sup> It was during his reign that the Holy Sepulchre celebrated its one hundredth anniversary (435). To prepare the church for the occasion Theodosius may have ordered the renovation of the lantern and the construction of the ciborium. He was a man interested in the monastic life, and in the duplication of old manuscripts, thus, he was apparently interested in both art and religion. And with such an important event as

the anniversary during his reign, he is likely to have financed the decoration of the Holy Sepulchre for the holy day September 13, 435.

In searching the Mediterranean basin for architectural structures which might have been copied from the Tegurium as it appears on the ivories, one would expect to find a building similar to the Church of the Saviour at Plataniti on the southern tip of the Peloponnesis (Fig.22).<sup>27</sup> This church, built in the eleventh century, may have been a copy of the the Tegurium - at least the dedication to the Saviour seems to associate the two. But other than the dedication and the resemblance of the two there is no other evidence to confirm this hypothesis. However, the church was small enough (7,30 x 5,55 m.) to look like the Tegurium, and an octagonal lantern or cupola with windows was mounted on its roof. And all these features suggest that this church at Plataniti might have been derived from the building in Jerusalem. No church or mausoleum from the fourth to the eighth centuries, however, can be found which duplicate these features. The closest approximation of such a building in this period is Church No. 3 at il Anderin dated 558/9 (Fig. 23).<sup>28</sup> However, it was larger than both the Church of the Saviour and the Tegurium, and its dome was cone-shaped rather than built on a drum with a low pitched roof. Thus, its similarities are rather remote - probably too remote to be associated with the Tegurium in any way whatsoever.

Because the Tegurium was more closely associated with tomb memorials than it was with congregational buildings, it seems plausible that copies or derivations of its architectural



features would be found in other tomb monuments rather than in churches. In Syria there are three tombs which are similar to the Tegurium in their architectural design, but the relationship is not close enough to claim them derivations of the Constantinian structure. The tomb at Hass for example (Fig. 24), was a two storied structure with the second story level designed to imitate a temple.<sup>29</sup> A pediment, pilasters and a small central door constituted the facade in a fashion suggesting the cabin type of Tegurium illustration found on the Monza ampullae and the glass cup from Carthage. A second tomb was located near the one just described, known as the Tomb of Bizzos (Fig. 25),<sup>30</sup> Both tombs were covered by a dome while this second example was smaller and free of windows. Like the first tomb, it was also of the cabin type, but only one story, not two. A third tomb, at Alif (Elif, Fig. 26), was also two storied, with a dome, doorway and pilasters, but no pediment, however, its great size does not commend it as a derivative of the Tegurium.<sup>31</sup> In fact none of these Syrian tombs are known to be designed after the building over Christ's Tomb. They are, rather, part of the mausoleum tradition established by the Romans in the area and maintained long after the Roman Empire had faded out of existence.

Buildings in North Africa which resemble illustrations of the Tegurium are not likely derived from it either. The small cabin type of mausolea in the Christian necropolis at Bagawat, Egypt (Fig. 27), may very well be part of a local tradition.<sup>32</sup> The small tomb at Kharga, in Egypt, west of Luxor

(Fig. 28), seems to have been based on a Roman model such as "La Conocchia".<sup>33</sup> Although its small cupola resembles the lantern on the Munich ivory, the relationship is coincidental. The small martyria of St. Menas at Abou-Mina, Libya and St. Felix at Nola, Algeria, though of the ciborium-tegurium type, are also likely unrelated.<sup>34</sup>

Nowhere in the Mediterranean basin, then, are there architectural structures which are known to be derived from the architectural form of the Tegurium, either as it was constructed by Constantine, or as illustrated on the different ivories and mementoes. Any structures which seem to resemble it were likely designed after a Roman monument in the area, since Roman monuments were both common throughout the Byzantine world and similar to the architecture of the Tegurium.

A factor which may have discouraged making architectural copies of the Tegurium was the function of the building. It was neither a mausoleum, nor a chapel, it was a reliquary designed to protect a relic, namely the Tomb of Christ. And reliquaries were not subject to duplication in architectural form. If a reliquary were duplicated it would likely be in the form of another reliquary. Therefore, a reliquary found by Jean Maspero at Baouit in ca. 1932 and known to André Grabar may have been designed to represent the Tegurium in much the same way a reliquary at Aachen does (Fig. 29).<sup>35</sup> Unfortunately no description of it is recorded. This may explain the lack of Tegurium copies. The Tegurium must have been seen as a reliquary in the eyes of Christian architects - not as an architectural monument.

## CHAPTER II

### THE MARTYRION

Once the rock shell of Christ's Tomb had been properly protected by the construction of the Tegurium, work could commence on a congregational building. Until a basilica had been built there was no place where the congregation of Christians could gather and worship. This church must have been part of the original plan prepared by Constantine's architects. Whether the plans were prepared in Rome or in Jerusalem is not known but Constantine himself insisted that the building be the "finest in the world" when completed.<sup>1</sup> Those were his words written to the Bishop of Jerusalem, Macarius, as recorded by Eusebius. Most likely they were carefully complied with but a lack of early descriptions fails to confirm the fulfilment of Constantine's intentions.

Only very small bits of the original foundation, or what is believed to be the original foundations, have been found, but it is not possible to reconstruct the original Constantine basilica from them.<sup>2</sup> Instead, art historians have assumed that the plans and foundations of later buildings on the site tended to follow the original foundations. Therefore, a careful examination of plans of the present site have been made by a number of historians. Using such plans as the one made in 1937 published by K. Conant (Fig. 30a) or an earlier example made in 1890 (Fig. 30b), K. Conant (Fig. 31a, b), R. Kraut-

heimer (Fig. 31d, e), H. Vincent (Fig. 31c), Willis (Fig. 31f), De Vogüé (Fig. 31g) and others have drawn what they believe to be the plans of the basilica of Constantine.<sup>3</sup> The differences in these reconstructions are as numerous as the attempts made. It is next to impossible, then, to determine exactly where or how the original foundations were placed but recent plans of the Holy Sepulchre prepared by K. Conant (Fig. 31 a,b) probably are the most accurate to date.

The scheme of the complex prepared by Arculf in the seventh century was not intended to trace the actual foundations of Constantine's basilica. The only details which Arculf decided to include were the two openings in its west end. (Fig. 8a, b, c). No attempt was made to draw the Rotunda and basilica, known as the Martyrion (Martyrium), in the same scale. The Rotunda, therefore, is represented by a concentric group of circles larger than the rectangle representing the Martyrion, even though the basilica was actually larger in size. Arculf's scheme of the Martyrion thus, is not very useful in determining the design of the original church built in the fourth century.

Elevations of the Martyrion are more numerous than plans of it in the period from the fourth to the eighth centuries, but their accuracy in defining details such as windows, columns and other architectural motifs is questionable.

The mosaic decorating the apse of Santa Pudenziana in Rome is the oldest work of art believed to show Constantine's Martyrion. A Roman bishop, Siricius, directed the construction of this building in ca. 390 at the expense of presbyters from Illyricum (Dalmatia). The church was built on the site of the

house of Pudens, a friend of St. Paul, by order of the Pope.<sup>4</sup> No early documents describe the contents of the mosaic, but, according to Conant and others, the buildings represented here are intended to represent important structures in the Holy Land, including the Holy Sepulchre (Fig. 32a).<sup>5</sup> The semi-circular structure to the left of Christ's right hand is believed to be the apse of the Martyrion which Eusebius preferred to call the hemisphairion. Directly to the left is the north arm of the transept. The description advanced by Conant continues, "Just to the left of the transept, the east end of the north clerestory of the nave appears, with two square-headed windows; still further to the left, the Propylaea with its three doors is to be seen, the colonnades of the atrium have been omitted" (Fig. 32b).<sup>6</sup> All of the buildings are shown there - all except the Rotunda. Its absence is inexplicable.

While there is some question about what buildings are represented on the Santa Pudenziana mosaics, there is no question that the Martyrion and Rotunda are represented on the mosaic known as the Madaba "Map of Jerusalem" (Fig. 33a, b, c). Identification of different parts of the map is assured by Greek inscriptions. The map, found by chance in 1896 on the floor of an orthodox church, was restored by a Benedictine monk, Mauricius Gisler, 1912.<sup>7</sup> The original is said to date from the sixth century or one hundred years after the Santa Pudenziana mosaic. The front of the Martyrion is shown with the top of the Rotunda directly behind the basilica roof. An atrium is shown before the church facade. To the left of the basilica and Rotunda a

lozenge-shaped roof marks the site of the Holy Sepulchre baptistry. There are three entrances in the front of the church and a number of windows in the drum of the Rotunda. As far as can be determined, all of the details included in the map are authentic, particularly the location of the different buildings (Map 1).<sup>8</sup> Nothing in the representation of the Martyrion, however, would suggest that this basilica was any different from any other church of this type and without a duplication of specific details or motifs in a second church it is very difficult to determine if the two buildings are in any way related.

Both O. Wulff and F. van der Meer have suggested that the Holy Sepulchre complex is represented on a sarcophagus in the Lateran Museum, Rome (Fig. 34).<sup>9</sup> The fourth century sarcophagus illustrates the denial of St. Peter on the left side and the woman with the issue of blood on the right. Behind St. Peter there are a number of buildings including a rotunda thought to be the Anastasis of the Holy Sepulchre. Following the interpretation advanced by the two art historians, the middle building would be the Martyrion while that to the right would be St. Peter in Gallicantu. But according to the record of Peter's denial in Mark 14:30, the location of the event was Gethsemane. A close examination of Map 1 in the area of Gethsemane suggests that if a person were to stand at the point known as "the pinnacle of the Temple" and to look north-east, he would see a rotunda -- not the Anastasis, but the Tomb of the Virgin. The Basilica in the middle would be the Church of Gethsemane with its apse properly located to the east, and to the right, the other basilica, the Eleona on the Mount of

Olives. The Martyrion, therefore, is not represented on the sarcophagus.

It is not represented on the wooden doors of St. Sabina (ca 430) either. According to Emile Mâle, churches with twin towers existed only in the region of Antioch at this time.<sup>10</sup>

The representations of Jerusalem found in mosaics at Rome and Ravenna fail to show a building elevation which could be clearly identified as the Martyrion. The fifth century mosaic in Santa Maria Maggiore, Rome, (Fig. 35b), shows what appears to be Greek or Roman temples within the city walls of Jerusalem.<sup>11</sup> A second church in Rome, San Giovanni in Laterano (St. John Lateran, Fig. 35c) illustrates a cupola type building representing the Tegurium of Rotunda but no basilica representing the Martyrion can be distinguished. No Martyrion can be seen in the diagram of the mosaics in Old St. Peter's made by G. G. Ciampini and published in 1693 in De Sacris aediticiis a Constantino Magno constructis historia (Fig. 35c).<sup>12</sup> It does not appear in the mosaics of San Lorenzo fuori le Mura (Fig. 35d) or San Vitale, Ravenna, (Fig. 35a), either, although both churches have representations of Jerusalem on their walls.<sup>13</sup>

The earliest written description of the basilica was made by Eusebius but he failed to elaborate on the structure except for a brief description of the west end.<sup>14</sup> Besides a reference to twelve columns located there, he refers to a "hemisphairion" or "hemisphere", believed to be the apse.<sup>15</sup> This term is not used elsewhere in reference to an architectural feature, suggesting that the apse end of the Martyrion was unique in

design. It would seem, however, that the design was based on the Constantinian basilica at Trier (Fig. 36), built by Constantine while he was Caesar in that city from 305 to 312.<sup>16</sup> Both buildings were approximately the same length; the Trier building was some 200 feet while the Martyrion was believed to be about the same distance from the apse to the front of the eastern portico.<sup>17</sup> The Martyrion was wider, however, by some 27 feet.<sup>18</sup> The apse walls of the Trier basilica rose to a point near the roof of the two story nave. Thus it was higher than the normal semicircular apse. This being the case, Conant's reconstruction of the apse is probably too low (Fig. 37). Krautheimer's plan showing a more circular structure also seems to be only one story (Fig. 31d).

An elaborate apse end was not unique to the basilica at Trier or to the Martyrion. The Church of the Nativity at Bethlehem (Fig. 38a, b) also followed this pattern. Eusebius would have us believe that St. Helena, widow of Constantine's father, was responsible for its erection.<sup>19</sup> This may be true. In any case it is likely that royal consent was given to the plan. Here the apse took the form of an octagon marking the site of Christ's birthplace.

The basilica was attached to the east side of it, possibly after the grotto had been enclosed - following in the same order of construction as at Jerusalem where the Tegurium was built first, followed by the Martyrion. The difference between the Bethlehem building and the Holy Sepulchre is that at Bethlehem the Holy Site was covered by a rotunda like structure attached to the church from the very beginning, whereas



at Jerusalem the Rotunda, built over the Tegurium, was added later. The Tomb of Christ remained a separate unit from the basilica until the Crusades. It would also appear that the separation of buildings at Jerusalem and the integration of them at Bethlehem was intentional, that is, one was not intended to be a copy of the other because they were both constructed simultaneously. The Church of the Nativity was nearly complete, if not entirely, when the Bordeaux Pilgrim visited it in 333.<sup>20</sup> In the same year this pilgrim had written that the Holy Sepulchre was also complete but of course, it had not yet been dedicated.<sup>21</sup> It would seem, then, that both the church at Bethlehem and the Martyrion at Jerusalem were based on a common architectural source, possibly the basilica at Trier.

Upon the completion of these two buildings the tradition seems to have come to an end. There are no other basilica churches in the Mediterranean basin which have an unusually large circular apse end.

A search for buildings which might have copied the group of twelve columns in the hemisphairion mentioned by Eusebius also proves futile.

Since the method of finding duplicates of the Martyrion or of some of its peculiar characteristics by an examination of other church plans has been unsuccessful, another approach is warranted. Richard Krautheimer in his well known article on the iconography of Medieval architecture states that the dedication of an edifice similar to the dedication of another linked the two together as source and derivation.<sup>22</sup> The same is true for the Byzantine period. Two churches dedicated to the same

saint were intimately connected. In the Medieval period such churches also tended to be similar in plan, if not overall, then in certain features. Only in one instance in the period discussed by Krautheimer does he find a church dedicated to the Holy Sepulchre (San Sepolcro, Barletta) which does not seem to reproduce any architectural features found in the complex at Jerusalem.<sup>23</sup> Assuming then, that churches dedicated to the Holy Sepulchre in the period from the fourth to the eighth centuries would also tend to duplicate certain architectural features, they should be sought out and their plans examined.

Two of the most widely known basilicas associated with the name of the Holy Sepulchre are located in Italy. One of them is the palace church in Rome, S. Croce in Gerusalemme, also referred to as the Basilica Hierusalem in Sessoriano (Fig. 39).<sup>24</sup>

The church, as it now stands, was rebuilt in 1743, but it was originally a huge rectangular hall constructed at the start of the third century. After the discovery of the True Cross by St. Helena, a relic of it was taken by her to Rome and placed in the newly renovated hall.<sup>25</sup> Helena may have added an apse end, but, otherwise the hall predates the Martyrion and, therefore, cannot be considered an architectural copy of it.

The other basilica is commonly known as the Basilica Ursiana (Fig. 41a, b). It was not located in Rome, but in Ravenna and was dedicated to the Anastasis. Built by Bishop Ursian probably before his death in 384, it served as the Cathedral of Ravenna.<sup>26</sup> An examination of its apse end proves

to be rather interesting. First, the apse is at the east end of the church. This is the earliest instance of such an orientation and may have been designed to associate it with the Holy Sepulchre which lay to the east from Ravenna. Second, it is also the earliest example of an external polygonal apse.

Immediately we are reminded of the Church of the Nativity, but the apse of the Martyrion may also have been octagonal on the outside.<sup>27</sup> Since the hemisphairion seems to have been an important feature of the Martyrion, a semioctagonal external apse wall may represent an intentional copy of the apse in Jerusalem.

The apse with five panels of an octagon composing its external wall rapidly became a common feature on fifth and sixth century churches throughout the Mediterranean. Whether or not this feature was derived from the Martyrion is speculative but examples are to be found in Cappadocia, with a smaller number in Palestine, Syria, South Asia Minor, Mesopotamia, Rhodes, Crete, Constantinople, the Crimea and Georgia.<sup>27</sup> But none of the examples are otherwise associated with Constantine's basilica in Jerusalem.

Several other churches are associated with the Holy Sepulchre or, at least, to the Cross by their dedication. In Ravenna, for example, there was another church besides the Basilica Ursiana with such a dedication. It was the Church of S. Croce built by Galla Placidia (Fig. 40).<sup>29</sup> But it was not a basilica, it was designed as a cross. Only the nave of the church survives. The mausoleum of Galla Placidia, dedicated to St. Lawrence and containing the sarcophagus of Honorius who moved the capitol to that city, was attached to the south side

of the church narthex. The use of a cross plan for the construction of this church between 402 and 425 was not unique. It seems to have been used for a church with a similar dedication in Gaza, south of Jerusalem.

The church at Gaza, known as the Eudoxiana, was built on the site of the temple of Marneion.<sup>30</sup> Although the date of its construction has been disputed it seems to have been dedicated on the day of the Resurrection in 407 to Holy Easter.<sup>30</sup> The suggestion that the royal household sent the plans for the church to Rufinus, an architect from Antioch, is likely true.<sup>32</sup> The royal household was quite involved with ecclesiastical architecture throughout the entire Byzantine Period. But the granting of royal sanction to a cross plan for a church dedicated to Easter seems strange when the buildings of the Holy Sepulchre at this time were both rectangular (Martyrion) and circular (Anastasis Rotunda). Possibly a relic of the Cross was deposited there and determined the shape of the building designed to contain it.

Moving now from the fifth to the sixth century and from the Middle East and Italy, to France, we learn that a church "in modum crucis" and dedicated to the True Cross was located on the site of Saint-Germain-des-Pres, Paris.<sup>33</sup> It was founded by King Childebert I, son of Clovis, and was dedicated to the Cross and to St. Vincent on December 23 between the years 557 and 559 by St. Germain, Bishop of Paris. Clovis had collected the relics of St. Vincent of Saragossa from that city in 542. It is not known when the relic of the True Cross was obtained but again it seems to have determined the plan of the church as

a cross. After the time of dedication in the mid sixth century, the church served as the burial site for the Merovingian royal family.

The Merovingians were also responsible for three other churches with the same dedication. Their plans are unknown but we assume they were similar to the church at Paris. The Church of Ste. Croix at Poitiers was built by Radegund, the repudiated Thuringian wife of Chlotar I.<sup>34</sup> Ste. Croix of Chelles was located to the east of the tomb of Bathilde, similar to the relationship of the Martyrion to the Anastasis.<sup>35</sup> Bathilde, mother of Chlothar III and Childerich, was an Anglo-Saxon war captive, made wife of a Merovingian Mayor of the Palace. Known for her patronage to the Church, Bathilde had given large estates to the abbey of the Neustrian Merovingians at Saint Denis. Before her death in 658 she withdrew to the monastery she founded on the royal demesne at Chelles where she built her Church of the Cross.<sup>36</sup> The third church was also located in the North of France. It was built at Orleans.<sup>37</sup> All of these Merovingian churches probably contained pieces of wood brought from Jerusalem in the belief that they were from the True Cross, in the same way that a small edicula in the Lateran Baptistery, dedicated to the Cross, contained a piece of wood claimed to be from Jerusalem.<sup>38</sup>

Although the place where the Cross was found was under the Martyrion, there seems to be no connection between that structure and the plan used to build churches to contain pieces of the relic. Except for S. Croce in Gerusalemme, Rome, all of the churches dedicated to the Cross were based on a Latin Cross

plan. It would seem, then, that only the Basilica Ursiana at Ravenna could have been planned to simulate the Martyrion. It is the only church associated with the Holy Sepulchre by dedication to have a basilica plan with an elaborate apse end.

Common to both the Martyrion and the Cathedral in Ravenna was the five aisle nave. This particular feature was both common and wide spread, especially among larger churches. Early examples date back to the Cathedrals at Tyre (318) and Orléansville (324), but other examples are S. Tecla, Milan (late 4th C.), the Cathedral at Trier (ca 380), St. Peter's in Rome (4th C), the Church of the Saviour in Naples, the Church of the Nativity in Bethlehem (333), the church known as Eleona on the Mount of Olives (335), St. Eusebius of Veceil, St. Paul outside the Walls, St. Felix of Nola, a church of five aisles at Hippone and the Cathedral of Navara.<sup>39</sup> Because of the size and importance of these five aisled churches it would appear that the basic plan must have originated in the royal court. An atrium in front of the basilica, with a propylaea along the street, also constituted part of the royal plan but these features were not part of the Cathedral of Ravenna. Still, it, together with the Martyrion, must be considered part of the royal tradition of large five aisled churches.

The fact that the church at Ravenna and the Martyrion both had five aisles alone does not link the two as source and copy but the similarity in the number of columns used to compose the colonnades confirms such a belief. Apparently both churches had 65 columns in the nave and aisles.<sup>40</sup> The number of columns may seem to be a rather unimportant feature but the

number and quality of columns was important enough to be mentioned in descriptions of buildings before anything else. For example, Eusebius mentions that Emperor Constantine sent "choice columns" to Jerusalem to decorate the church.<sup>41</sup> Constantine also sent twelve silver capitals for the tops of twelve columns surrounding the hemisphairion.<sup>42</sup> Empress Eudoxiana sent no less than 32 columns to the church in Gaza named in her honour. Four of these were especially prepared from Karystos marble.<sup>43</sup> No other details of her church are recorded. In the Medieval period copies of the Holy Sepulchre duplicated the number of columns in the original as part of their architectural design.<sup>44</sup> Therefore, considering that the duplication of the number of columns in the Anastasis was practised in later years and that descriptions take special note of the number of columns in the churches being described, it is quite probable that the number of columns in the Cathedral at Ravenna was based on the number in the Martyrion.

Although R. Krautheimer states that the first Church of Hagia Sophia in Constantinople (ca. 360) had double aisles and galleries like the Martyrion, the two buildings are not related.<sup>45</sup>

In a church at Epidauros the row of supports along the nave are columns while those in the aisles are piers. This pattern was also followed in the Martyrion, but, again, the two churches are not related.<sup>46</sup> Such details were too common to be attributed to one particular source, particularly if the source happens to be the Martyrion.

It would appear, then, that there was only one church which seems to have copied the Martyrion built by Constantine's architects. That was the Cathedral at Ravenna known as the Basilica Ursiana.

Because the Martyrion was only designed to serve as a congregational structure, it was not likely looked upon as being a very exceptional building, even though it was associated with the location of Christ's Tomb. Except for the hemisphairion and its columns there were no architectural features which seemed to capture the attention of pilgrims such as Eusebius. Even he does not spend too much time describing the basilica. It was considered to be just one more great Christian Church.

The original Martyrion was destroyed in 614 by the Persians. Modestus restored it but he was hampered by lack of funds. He had sought aid in Ramula, Tiberias, Tyre and Damascus, but the Persians had left the country in ruin and no one could afford to give aid.<sup>47</sup> Had financial aid not been forthcoming from the Patriarch of Alexandria, John the Charitable, Arculf may not have seen anything but ruin when he visited Jerusalem some years later. But aid did come and by 630 the basilica was back in service. Within seven or eight years the Moslems had invaded the Holy City and gained control of the church.<sup>48</sup> It was not burned at that time but it did suffer from a fire in 967. It was restored only to be destroyed again in 1009 or 1010 by Khalif Hakim. This time it was not rebuilt. Therefore, no copies or drawings of it were made in the Medieval period.



## CHAPTER III

### THE ANASTASIS

The Anastasis of the Holy Sepulchre was a circular structure built behind or to the west of the Martyrion. Because of its circular shape, the Anastasis is commonly known as the Rotunda or the Rotunda of the Anastasis. The original building is no longer standing but the present structure is believed to follow the original ground plans rather closely. Judging from the modern structure, the original building apparently measured some 36,52 meters in diameter. It was probably equally as high. To those who came as pilgrims to see the Holy Sepulchre it must have been a very imposing sight. One they would surely have remembered all their lives.

No reference is made to the Anastasis Rotunda by Eusebius when he described the Holy Sepulchre in his Vita Constantini.<sup>1</sup> We assume, therefore, that it did not exist in 337 when Constantine died. Possibly Constantine had plans prepared but there is no documentary evidence of such a theory.

The date of construction is a matter of contention. It is generally accepted that the Rotunda was built at the middle of the fourth century, possibly by 348, and there are documents which may be interpreted to support this early date, but it is equally possible that the building was not built until the

reign of Theodosius (378-395) or just before it.

Kenneth Conant and Richard Krautheimer both claim that the Rotunda was in use by 350.<sup>2</sup> The case for such a date is presented by Conant. He bases his theory on the Catechetical Lectures given by Cyril of Jerusalem to a group of his pupils in 348. These pupils were aspiring church members who were taught the catechism by visiting the sites sacred to the church in the precincts of the Holy Sepulchre. In Lecture XIV Cyril refers to "this very place of the Resurrection: and "this holy Church of the Resurrection of God the Saviour, sheathed with silver and wrought with gold..."<sup>3</sup> But both of these references are ambiguous. The "place of the Resurrection" could mean the area around the Tegurium known as the court of the Anastasis, while the "holy Church of the Resurrection" could be the Tegurium itself which Constantine had lavishly decorated, according to the words of Eusebius.<sup>4</sup> As further evidence of his theory, Conant refers to Lecture XVIII, "After Easter's Holy Day of Salvation ye shall come on each successive day...after the assembly into the Holy Place of the Resurrection, and there, if God permit, ye shall hear other Lectures".<sup>5</sup> Again Conant assumes that the catechumens moved into the Rotunda - "the Holy Place of the Resurrection" - but there is no specific reference to a building in this Lecture either. The date of 348 then is largely supposition, based on brief and unclear passages from a text not intended to describe the architecture of the Church.

But the Rotunda must certainly have been in use by the end of the fourth century. In ca. 383-85 Aetheria (Etheria,

also known as St. Silvia of Aquitaine) visited the Holy Sepulchre while on a pilgrimage from Gaul.<sup>6</sup> She wrote, "Those days are called the days of Dedication, on which the holy church in Golgotha, called the Martyrium, and the holy church of the Anastasis, where the Lord rose after His passion, were consecrated to God" and elsewhere in the same text, "all doors are opened and the whole crowd streams into the Anastasis."<sup>7</sup> Both of these passages refer to the Anastasis Rotunda in clear undebatable terms. Therefore, the building must have existed in 385.

Exactly when the Anastasis might have been built, prior to 385, is difficult to determine. Its similarity to the Church of the Ascension suggests a similar date, and that church was built before 378, possible as early as 370. On the other hand Theodosius, who came to power in 378, also built a number of churches including SS. Karpos and Polykarpos (SS. Carpos and Papylos) in Constantinople which bears some resemblance to the Rotunda. The problem is definitely perplexing. Certainly a late date is not at all out of question, even though most art historians would prefer to place the date before Cyril's Lectures (348). Illustrations and descriptions could apply to either period although they all appear in a period soon after the later date, that is, in or after the last quarter of the fourth century. On these grounds, though not firmly established, a date in the early last quarter of the fourth century seems preferable.

The term "Anastasis" originally referred to the Tegurium, the surrounding court and the cave at the time of Cyril's and

Aetheria's writing in the fourth century. It was not until the early sixth century that mention is made of a circular structure built on the site of the Anastasis. The reference appears in the "Breviary" or Short Description of Jerusalem" (ca 530) and reads "Supra ipsum est ecclesia in rotundo," that is "Above it a church is built in a round form."<sup>8</sup>

Arculf was the first pilgrim to make a careful description of the Rotunda. The Rotunda, however, seen by him, was the reconstruction made by Modestus after the Persians had destroyed the original in 614. But likely, it duplicated the original. His description reads as follows:

This very large church, all of it built of stone, is wonderfully round on every side, rising from its foundations in three walls, by which one roof is elevated to a great height, having a broad space for passage between each wall and the next; in three ingeniously constructed places of the middle wall there are also three altars. Twelve stone columns of wonderful magnitude sustain this round and lefty church, which has the altars above mentioned, one looking to the south, another to the north, and the third towards the west. It has twice four gates (two fourfold gates); that is four means of entrance through three solid walls, the space-passages being intersected in straight lines; of these four places of exit look towards the north-east (which is also called the "Caecias" wind), and the other four look towards the south-east.<sup>9</sup>

Arculf does not deal with architectural motifs or decoration to any great extent. Instead, he considers the location of specific features such as the entrances and altars which he indicated on his accompanying plan (Fig. 8a, b, c).

No illustrations of the Rotunda have been found to date from the middle of the fourth century. It is not until the end of that century that reliefs were carved on the side of certain sarcophagi. The earliest of three examples dates from the

second half of the fourth century according to Neil C. Brooks. Identified as the sarcophagus from Rome (Fig. 42a), it is distinguished from the other two by the window which pierces the wall of the Rotunda illustrated on it.<sup>10</sup> The dome is shaped like a lemon cut through the centre so that the little protrusion on the end forms the peak. Otherwise, details are lacking. The sarcophagus of S. Celso in Milan (Fig. 42c) is dated by Brooks as late fourth or early fifth century.<sup>11</sup> To the left of a circular structure two figures look into its open door as if in search of a body. Directly above, the upper half of an angel's body appears from out of a cloud and points to the open door. To the right of the cylinder two female figures meet face to face with the risen Lord. No windows appear in this example but the dome is similar to the Rome relief, although it seems to have been covered with metal sheeting not shown on the earlier example. The third sarcophagus is from Southern Gaul (Fig. 42b).<sup>12</sup> The cylindrical Rotunda in this example is similar to the one seen in the Milan sarcophagus. The door, though not quite as tall, is also round arched and the domes in both are similar. The roof of metal sheeting is not visible in the Southern Gaul sarcophagus. As in the Rome relief, women kneel before the risen Christ. Apparently two guards, one on each side of the Anastasis, were also represented, according to Brooks, but the drawing of the sarcophagus made by Garrucci, who discovered it, is not too clear. All three of these sarcophagus reliefs represent the Rotunda in a similar way, as a simple, undecorated, cylindrical building with a dome roof.

Later illustrations of the same building in relief are

quite different. The Rotunda shown on the Basilewsky situla, formerly in the Church of San Ambrogio and now in the Cathedral Treasury in Milan, is two storied (Fig. 43).<sup>13</sup> In the scene where it is guarded by four soldiers, the Rotunda is built of brick with the base a rotunda, larger than the second story drum. A window pierces the second story while a two fold door is shown on the ground level. In the scene of the risen Christ, the Rotunda is again shown. The guard obscures the first story but the second story can be seen. The window now stands open. Close examination of the second story reveals that it is very similar in appearance to the reliefs on the sarcophagi made in the late fourth or early fifth century, even though the situla would seem to date from the ninth century. The Rotunda, as represented on this situla, is typical of the Medieval period when artists showed it as a two story building with an ambulatory.

For some unknown reason the Rotunda is not shown on the fourth century mosaic of Santa Pudenziana in Rome (Fig. 32a, b). Its absence has been explained by Conant.<sup>14</sup> According to him the Rotunda was too far to the right to be included in the scene. In reconstructing the location of the artist and the view which the artist would have seen, Conant placed him just outside the church precincts on the north side and just west of the middle of the complex. The artist looked east south-east towards the front of the Church. The Rotunda, according to Conant, was, therefore, too far west for the artist to see it. (Fig. 32c). Such a view was necessitated due to the placement of Calvary in the centre of the mosaic. But there may also be a second

explanation. If the Rotunda was built at the end of the fourth century it may not have been in existence when sketches were prepared for the mosaic. Sketches for the work could have existed for some time before the church and walls were ready for the tesserae.<sup>15</sup>

Fifth century representations of the Rotunda do not seem to exist. Interest, instead, seems to have been focused on the Tegurium. It was in the fifth century that the ivories discussed in Chapter I were carved. Apparently, the Tegurium was considered to be of greater importance than the Rotunda at this time. If such a suspicion is correct, then, it is not likely that architectural structures intended to copy the Rotunda would have been constructed in this century. And since the fifth century was unsettled politically and religiously, church architecture was not carried on with great fervor in any case.

The sixth century was different. The Rotunda again appears in illustrations. The most interesting examples are the Madaba mosaic (Fig. 33b) and the reliquary in the Sancta Sanctorum, Lateran (Fig. 9).<sup>16</sup> In both examples the dome and a small portion of the drum are visible and in both cases a number of windows are to be seen opening into the Rotunda just below the base of the roof. Otherwise details are lacking.

In the late seventh century Arculf made his plan of the building (Fig. 8a, b, c) but no illustrations from that century are known.

Reconstruction of the Rotunda from illustrations and reliefs is almost impossible due to lack of material. And the lack of physical remains from the original structure further

hampers attempts to visualize what the original building looked like. Generally speaking, art historians have accepted the ninth century representations, such as the one on the Basilewsky situla, as being correct. Conant has made his reconstructions accordingly (Fig. 31b, 33c).

Briefly, the history of the Rotunda is as follows. The original building was burned in 614 by the Persian king, Choroës II (591-628) but it may not have been levelled.<sup>17</sup> The annales of Eutychius (876-939) record the reconstruction undertaken by Modestus in 628.<sup>18</sup> In 812 the Arabs sacked the Holy Sepulchre and in 936 there was a second fire but the greatest havoc was caused by Kalif Hakem in 1009 or 1010.<sup>19</sup> Over forty years passed before a new Rotunda was constructed. The task was undertaken by Constantine Monomachus and completed in 1048. In the twelfth century the Rotunda was added to creating the complex as it now stands. In 1808 fire again attacked the ancient buildings, and although some repairs were made, the buildings are still in very poor condition.<sup>20</sup>

Arculf's plan of the Rotunda (Fig. 8a, b) is very similar to the plan he made of the Church of the Ascension (Fig. 44a, b), known as the "Imbomon" or "Inbomon" (from the time of Aetheria ca 385). Both plans have an inner circle with an opening to one side. In the case of the Anastasis this circle represents the ciborium and it is likely true for the circle in the Imbomon plan as well. Next to this ring is a lighter ring (Paris manuscript; Anastasis, (Fig. 8b); Ascension, (Fig. 44b) which represents a colonnade. Then there is a solid ring representing a solid wall. The "middle wall" as Arculf refers to



it in his description of the Rotunda, today, is the location of the outer wall of the Anastasis. The same wall contains the three apses or areas for altars at the cardinal points of north, west and south.<sup>21</sup> The solid wall shown on the Ascension plan seems to be the inner wall of an ambulatory travelling around the church. Finally, there is an outer ring but in the case of the Rotunda it is not solid while in the case of the Ascension it is. Apparently, the latter was surrounded by a solid wall while the former was not. But, in actual fact, this seems unlikely since the Rotunda was illustrated with a solid wall on the first story. Both buildings then, were basically the same in their general plan.

Only recently have excavations revealed that the Church of the Ascension was actually circular like the Anastasis.<sup>23</sup> For years it was believed that the original church was octagonal (Fig. 45).<sup>24</sup> But the octagonal plan now is believed to date from the Crusade period. Recent measurements have shown that the octagon was larger than the original rotunda by some 4 meters.<sup>25</sup> The radius of the rotunda is approximately 18 meters - almost identical to the radius of the "middle wall" of the Anastasis (18,26 meters).<sup>26</sup> But this close relationship of radii was to be expected because of references made to the size of the two churches by an Armenian pilgrim. He had written, "On the place of the Ascension is erected, after the likeness of the Church of the Resurrection, a very beautiful cupola-shaped church, 100 ells in width."<sup>27</sup> In the same text but referring to the Anastasis he wrote, "In the colonnaded cupola-shaped church

(which was built) 100 ells in height and 100 ells in breadth, on this and that side (are found)(or stand) 12 columns below and 12 columns above."<sup>28</sup> The Armenian, then, felt that both churches were the same size and the same "likeness".

The Church of the Ascension was built sometime shortly before 378, possibly as early as 370 according to Krautheimer.<sup>29</sup> It was financed by a rich woman from Rome named Poemenia. Since it is not known for certain if the Anastasis was built before or after the 370's, it is difficult to know if one building copied the plan of the other or if both buildings had a plan in common and were built simultaneously.

The left side of the S. Pudenziana mosaic in Rome (Fig.32a) has already been discussed. On the right side historians believe the Imbomon and Eleona, on the top of the mount of Olives, are represented, however, close examination will show that the rotunda taken to be the Imbomon is not round but polygonal.<sup>30</sup> The interpretation of this building as the Imbomon was acceptable while it was believed that the church was originally octagonal but now that excavations have found that it was actually round the theory must be dispelled. Instead the representation may be of the Church of the Nativity in Bethlehem with its octagonal apse.

There were, actually, not a great number of rotunda buildings in the region of Palestine and Syria at the end of the fourth century. There was, of course, the Imbomon and the Anastasis, and by the beginning of the fourth century ideas and beliefs associated with domical shapes and structures such as the tholos, mundus, heroön, sacred baetyl, omphalos

and so on were popular and widespread, but they bore little fruit in the way of monumental rotunda architecture.<sup>31</sup>

E. Baldwin Smith writes that "The domical mortuary tradition, ... like the domical baptistry, was not native to Syria, for neither in Syria nor farther east in Mesopotamia and ancient Persia were there any round tombs whose domical shape preserved the memory of an ancient house."<sup>32</sup> Indeed, the earliest extant freestanding tomb in the region is the monolithic, cylindrical stele at 'Amrith built during or before the reign of Herod the Great.<sup>33</sup> Except for this stele, Smith claims that all domical tombs from the first century B.C. to the fourth century A.D. in Palestine, based their design on Roman models in Egypt.<sup>34</sup> No doubt he would have included the tombs of Absalom with its funnel roof and that of Zacharias with a pyramidal top in the group, but he does not list any monuments as examples.<sup>35</sup> Besides the stele there seems to be only one other completely cylindrical building in the region prior to the Christian constructions. It is the Marneon at Gaza.<sup>36</sup> Built in the second century and dedicated to a sky god, Marnas, it was destroyed by fire in 402. Before it burned Mark the Deacon described it. He said 'it was round, being supported by two colonnades, one within the other, and in the centre was a dome, puffed-up and rising on high.'<sup>36</sup> According to the description made by Mark, the Marneon was somewhat similar to the Anastasis but it seems unlikely that the architects of the Holy Sepulchre Rotunda would have based their plan on it. More likely they would have been sent a plan from the royal court in Constantinople or Milan. Italy was able to offer a wide variety

of circular plans for such a monument. (Fig.46 a-d) A list of possible buildings might include the Tomb of Cecilia Metella, the temple of Tivoli, and the temple of Vesta in Rome, the mausoleum of the Gordians known as the "Tor de' Schiava" and so on.

At the end of the seventh century there were only five circular Christian buildings in the Middle east, the two fourth century buildings mentioned above, the Theodokos at Beisan (Beth Sean, ancient Scythopolis), a martyrium at Fa'lul, and the Church of the Virgin at Antioch.

The Church of the Virgin at Antioch was built by Justinian in the middle of the fifth century.<sup>37</sup> In the tenth century it was described as 'a round church, and one of the wonders of the world for the beauty of its construction and its height.'<sup>38</sup> No other details of the church are known but its plan was probably based on the Tomb of the Virgin built in Jerusalem in the middle of the fourth century, though it was octagonal rather than circular.

The rotunda at Beisan (Fig.47) was built in the fifth or sixth century.<sup>39</sup> It was composed of two or possibly three concentric walls, the centre one actually being a colonnade,-- if it was circular and not a square as Abel suggests.<sup>40</sup> The outer foundations measured some 38,8 meters in diameter and the inside wall of the ambulatory 27,44 meters. If there was an inner colonnade it might be equal in width to the front of the apse at the east end (10,04 meters).<sup>41</sup> The diameter of the outer colonnade of the Anastasis was ca.50,40 meters.

The "middle wall" and present exterior of the Anastasis is ca. 36,52 meters in diameter.<sup>42</sup> The Theotokos at Beisan was, therefore, smaller than the Rotunda in Jerusalem and its plan, with an apse at the east end and a narthex at the west, was not at all like the larger building.

The Church of St. Michael at Fa'lul (Faloul, Fig. 48) in Syria, was built by Diogenes in 526-7.<sup>43</sup> At the east end of this particular church was a triple apse constructed of solid marble with the central apse terminating in a semicircle. A narthex at the west end served as a porch for three entrances. The diameter of the exterior wall was 14,95 meters.<sup>44</sup> Obviously this rotunda is not related to the Anastasis in any way.

To the north, in Constantinople, a circular church was built at the end of the fourth century and dedicated to SS. Karpos and Polykarpos.<sup>45</sup> It was built over a crypt and was composed of a central room surrounded by an ambulatory. The entrance was located in the south. Evidence of stairs suggest a second story. A chancel and apse also constituted part of the plan which Krautheimer feels "leaves little doubt that the church was a comparatively early copy of the Anastasis."<sup>46</sup> On his authority this is the first church which has been given the honour of being a copy of the Rotunda in Jerusalem and I see no reason for doubting such a claim, although it is only based on archeological evidence.

There are no buildings designed as rotundas in the northern coastal regions of the Mediterranean east of Italy to claim the Anastasis as their predecessor. Italy however,

is different. Circular mausolea are common to the region around Rome. In fact, K.A.C. Creswell claims that the "Church of the Holy Sepulchre built by Constantine seems to have been derived directly from the rotunda of Santa Costanza (Fig. 51a,b)!<sup>47</sup> And there are similarities in its plan to the building in Jerusalem, namely, the dome supported on a ring of columns and a circular ambulatory between it and the outer wall. There was also an outer ambulatory similar in location to the outer ring drawn by Arculf on his plan to represent an external ambulatory around the Rotunda.<sup>48</sup> Creswell notes particularly the arrangement of the inner colonnade. It, like the colonnade of the Anastasis, was designed to reflect a cruciform, although it marked the cardinal points by increasing the space between columns at that point rather than resort to the insertion of piers, as was the case in the second building. It should also be noted here that a similar grouping of columns, into quarters of the circle, was followed in the plan of the seventh century moslem Dome of the Rock, built in the city of Jerusalem not too far from the Holy Sepulchre.<sup>49</sup> This was one of the features which the moslem architects undoubtedly derived from the Anastasis. There were also niches in the walls of Santa Costanza at the four points. The diameter of the building from wall to wall is 22,30 meters or about 1 meter larger than the inner colonnade of the Anastasis. It may very well be, then, that the mausoleum of Santa Costanza (324-6) was a model for the Anastasis. It did serve such a purpose in the planning of the Church of S. Maria Maggiore at Nocera (Nocera dei Pagani, Fig. 52a,b).<sup>50</sup> The same may be true for the

Church of S. Severina near Catanzaro in Calabria.<sup>51</sup>

There were, of course, other circular mausolea in Rome including the two which were attached to the Church of St. Peter, now destroyed, known as St. Petronilla and S. Andrea; the mausoleum of St. Helena, the Tor Pignattra and the mausoleum of Romulus. Any of these buildings may have inspired the circular design for the Anastasis.

They may, indeed, have inspired the architects in North Africa to build a number of rotundas there. In Algeria, at Tipasa (4th century) and at Djemila (5th century, Fig. 53) round buildings were constructed from some unknown model.<sup>52</sup> East of Djemila, at Carthage, A. Khatchatrian records the circular remains of the Damos-el-Karita (5th century, Fig. 49).<sup>53</sup> Rotundas in this region were no more numerous than they were in the area of Palestine and Syria although Baldwin Smith claimed that in the pre-Constantine era tomb designs were transferred to the east from Egypt rather than from Italy.<sup>54</sup> That may be so, but in the post-Constantine era it seems that Italy was responsible for the extension and development of rotundas throughout the Empire.

This holds true for the area of France and Spain as well. Plans for the rotundas in this area must have been sent from the royal household in Italy. Rotundas are known to have existed at Saint Germain-l'Auxerrois in France (6th century), as a baptistery at Aljezares (Fig. 50), and as a mausoleum at Centcelles in Spain.<sup>55</sup> These buildings are not at all related to the Rotunda of the Holy Sepulchre, nor are those in North Africa.

In Italy there is only one rotunda which historians have claimed a copy of the Anastasis. It is the Church of S. Stefano Rotundo in Rome (Fig. 54).<sup>56</sup> This church was built in the fifteen to twenty year period of poverty which followed the sacking of Rome by the Vandals. Pope Simplicius I (468-483) served the Church from Rome at the time of construction, and Zeno the Isaurian (474-491) served as sole emperor. Italy at the time was restless. The strength of the barbarians was so great that they were almost able to establish a Roman emperor at will. In 476 the barbarian chief, Odovacar, deposed the last western emperor, Romulus Augustulus, to take the position himself. Only through the help of Theodoric the Ostrogoth was Zeno able to regain his position. After his death the Ostrogothic kingdom of Italy remained with Ravenna as the capital. Yet these unsettled conditions did not prevent the construction of this interesting church.

With Italy in such a state of turmoil most of the artists and artisans must have left. No doubt there were very few architects in Rome capable of constructing a church so great as to measure some 208 feet in diameter.<sup>57</sup> It could very well be that plans came from Jerusalem. It was there that the body of St. Stephen was discovered in 415 and it was there that the earliest of churches dedicated to him was built by Empress Eudoxia. St. Stephen's in Jerusalem, however, was not the model for the church in Rome since it was a basilica, not a rotunda.<sup>58</sup> Jerusalem must also have been a camp for refugees at the time and among the displaced persons there must have been a number of capable architects - architects who had become familiar with



the Rotunda of the Holy Sepulchre.

Richard Krautheimer believes that it was through such a document as the "Commemoratorium de casis Dei" (ca 806) that the measurements of the Anastasis were transferred to Rome.<sup>59</sup> This document gives the measurements of the outer ambulatory and the centre room of the Rotunda in Jerusalem. Based on the document, the radius of the centre room would be 12,76 meters while the actual measurements are 12,02 meters in the Anastasis, and 12,06 meters in S. Stephano Rotondo. (The original figures in the "Commemoratorium" are given in dexteris, the length of which, in meters, is not definitely known and may even have varied in length when in common use. 1 dexteris = 1,485 meters according to Vincent and Abel; or 1 dexteris = 1,51 meters according to Schmaltz. The circumference of the inner circle was given as 54 dexteris or ca. 80,20 meters). The circumference of the outer ambulatory according to the document should be 107 dexteris or ca. 158,90 meters (1 dexteris = 1,485 meters) and the radius would be ca. 25,30 meters. This is the measurement Krautheimer uses to draw his plan of the Anastasis (Fig. 31e). The radius of the Church of S. Stefano Rotondo is ca. 31,70 meters. It was, therefore, several meters larger in radius than the Anastasis. This difference in size Krautheimer has attempted to explain by suggesting that the builders confused the scales of measurement being used. In Jerusalem the distance from the inner colonnade to the outer wall or colonnade was 14,85 meters or 50 roman feet, while the same distance at S. Stefano Rotondo was 22 meters or 50 cubits.<sup>60</sup>

Apparently the person who had prepared the plan, had given the units but had failed to state the scale being used. Such an oversight is certainly plausible but whether the church in Rome is truly a copy of the Anastasis or not may still be a matter of debate.

There is no more evidence for the claim of S. Stefano Rotondo being a copy of the Anastasis than there was for SS. Karpos and Polykarpos. But how much evidence is necessary to confirm such a claim is a matter of conjecture. Ideally, confirmation should depend on documentary references made at the time of construction but this is very seldom the case. Similarity of dedications supporting similarities in plans must be judged conclusive in discerning copies, but again, such examples are rare. If only a resemblance, and, possibly, a duplication of certain measurements or architectural features are necessary, then both S. Stefano Rotondo and SS. Karpos and Polykarpos must be considered copies or probable copies. If more is required, then these claims stand in doubt. But most likely the former is true. Most likely both churches were influenced in their plan by the Anastasis Rotunda.

Copies of the Anastasis made in the Medieval period were both circular and octagonal. For example the derivations at Fulda, Lanleff and Cambridge were round while those at Paderborn, and Pisa (S. Sepolcro) were octagonal or polygonal.<sup>61</sup> The fact that a round building was copied as an octagon is quite interesting and raises the question of possible octagonal copies dating from the period presently under consideration. A number of such possibilities have been mentioned such as the Tomb of

the Virgin at Jerusalem, the Church of Theodokos on Mount Garizim and the Dome of the Rock built by the moslems on the site of the temple of Jerusalem.

To complicate the problem of determining the source of such octagonal buildings, there were a number of Christian and non-Christian structures which predate the Anastasis and which were constructed on octagonal foundations. The mausoleum of Diocletian at Spolato, for example, and the Domus aurea or Golden Octagon at Antioch were based on such a plan. So was Constantine's Church of the Nativity at Bethlehem. Any of these buildings could have served as a model for future octagons.

But before giving consideration to such octagons as the Tomb of the Virgin let us look at the baptistry of the Basilica Ursiana in Ravenna. It was this church which was associated with the Holy Sepulchre by dedication. The church baptistry was octagonal (Fig. 41) and seems to date from the erection of the basilica (384).<sup>62</sup> Its shape is quite significant because it was one of the earliest octagonal niched baptistries in the Christian world except for S. Tecla in Milan according to Spiro Kostof.<sup>63</sup> By the time of this building's construction the Anastasis must have been built but the location of the baptistry on the north side of the church seems to negate the possibility of it being a copy of the Rotunda in Jerusalem. If it was intended to copy the Anastasis one would expect it to be located to the east of the apse, or possible to the west of the building, but somewhere on axis with the church - not to one side. On the other hand, the location may not be a determining factor in this case.

Judging by inscriptions on the sides of the octagonal font, this building and the Holy Sepulchre may have been associated with each other, but the link remains tenuous. Part of the inscription reads as follows;

The temple of eight niches rose up for holy use.  
The octagonal fountain is appropriate for that rite.  
It was fitting that the house of holy baptism  
rise up in this number  
By which true salvation returned for mankind  
With the light of Christ rising again, of Christ  
who opens the gates of Death  
And raises the dead from their tombs  
And freeing confessed sinners from the stain of sin  
Cleanses them with the water of the pure  
flowing font. 64

Suggestions to Christ's resurrection and the opening of the "gates of Death" are closely linked to the Holy Sepulchre. The Anastasis was sometimes interpreted as the "fountain of life" and the fountain is referred to in the inscription. But this is not sufficient information to confirm a theory that the baptistry is connected architecturally with the building in Jerusalem. Nonetheless, the baptistry of the Basilica Ursiana became a model for octagons at Albenga, Brescia and Frejus, and probably the Lateran Baptistry as rebuilt by Sixtus III (432-440).

The Tomb of the Virgin (Fig. 56) was probably the first octagon to be built in the area of Palestine and Syria after the completion of the Rotunda in Jerusalem. The octagon at Tell Hum (Tell Houm)(Fig. 58) built in the middle of the fourth century predates the construction of the tomb, but it is too early to be built after the construction of the Anastasis.<sup>65</sup> It was at the Council of Ephesus that recognition

was given to the Virgin followed by the construction of her tomb. But where the plan originated is not known. Grabar feels that the Holy Sepulchre Rotunda or the Imbomon were the source of inspiration but the internal colonnade of the tomb is only 4,50 meters in diameter or less than half of that of the Rotunda.<sup>66</sup> There is also an apse in the tomb (6,30 meters wide by 4,40 meters deep) while there is none in the Rotunda, although there was one in the Imbomon. Through the application of the Mauss system, the external wall measured 18,90 meters in diameter making it almost the exact size of the Anastasis.<sup>67</sup> But the location of this wall in the Tomb of Virgin is hypothetical and not supported on archeological evidence. It, therefore, could be either larger or smaller than the diameter here suggested. Such a difference in size would further destroy any association the tomb might have with the Rotunda.

A method of comparing rotunda structures has been found by Felix Kreusch and has been applied to the Anastasis and the Tomb of the Virgin with interesting results. But the conclusions which might be drawn from the comparison do not prove that the octagonal building dedicated to the Virgin was based on the Rotunda or otherwise.<sup>68</sup> The method used by Kreusch is based on a Biblical passage taken from Revelations XXX:17; "He also measured its walls, a hundred and forty-four cubits by a man's measure, that is, an angel's." His research has shown that the number of units employed in constructing the circumference of the inner octagonal wall or colonnade of martyria - not baptistries - was 144.

The Anastasis, for example, with a circumference of 64,29 m. is equal to 144 roman ells (1 roman ell = ca 44,36 - 44,6 m.).<sup>69</sup> The inside circumference, excluding the space for the apse, of the Tomb of the Virgin equals 44,10 m. or 144 greek feet (1 greek foot = ca 30,60 - 30,83 m.). Other buildings which satisfy this condition are: the Tor Pignattra (4th century); S. Aquilino, Milan (5th century); S. Gregory, Milan (5th century); the Theodokos, Garizim (484); the martyrion at Hierapolis (5th century); SS. Sergius and Bacchus, Constantinople (527); S. Vitale, Ravenna (ca 538); the Domus aurea of Nero, Rome (1st century); the Mausoleum of Diocletian, Spalato (ca 300), and the octagon at Aachen (ca 800). The baptistries of the Lateran, Rome (4th century); the Cathedral in Milan (4th century), and the Orthodox in Ravenna (early 5th century) did not have an internal colonnade or octagonal wall with a circumference of 144 units.<sup>70</sup> Apparently all martyria followed a similar plan for the internal octagon with the source of the tradition originating in the first century, probably in Rome as suggested by the Domus aurea of Nero. And though both the Rotunda and the Tomb of the Virgin are part of the tradition it does not mean that the plans for the latter were taken from the former.

The octagonal Domus aurea at Antioch (Fig. 55) must have served as the model for the Virgin's tomb. It was a Constantinian structure apparently dedicated to Hormony in 329 but it was not completed until 341.<sup>71</sup> No traces of the building are to be found today but the original structure seems to have had two octagonal colonnades within its walls, a

gallery above, and an apse much like the Tomb of the Virgin. Not only was the Domus at Antioch apparently responsible for the plan of the Tomb, but it also seems to have inspired the use of the octagonal plan of S. Simeon Stylites (Kal'at Sem'an) east of Antioch (Fig. 59), San Vitale in Ravenna (Fig. 51) and SS Sergius and Bacchus in Constantinople.<sup>72</sup> Such an influence on architecture might be expected from Antioch because it was the patriarchal seat which served the area of the Holy Land and, no doubt, the Patriarch of Antioch had a strong influence in determining the style and form of buildings and building plans in the immediate area and abroad.

The octagonal church of Theodokos at Garizim (Fig. 57) just north of Jerusalem was most likely modeled on the Tomb of the Virgin.<sup>73</sup> The interior of this church is much like the interior of the tomb, but the square rooms on the sides of the octagon between the cardinal points was a completely new feature. These rooms occupied the 12 meter wide space between the inner octagon and the outer wall. The length of this church, built by Emperor Zeno, was 37,30 meters, including the apse, and was some 30 meters wide.<sup>74</sup> It was, therefore, larger than the Tomb of the Virgin at ca. 18,90 meters in diameter. The diameter of the inner octagon was only 13 meters, making it about seven meters smaller than the same diameter in the Anastasis. The diameter at Garizim, then, was closer to the span of the inner colonnade of the Virgin's tomb at 11,10 meters. It would seem, therefore, that the architects at Garizim looked to the thirty year old Martyrium

in Jerusalem built for the Virgin as the basis for their plan.

The octagon at Kal'at Sem'an (Qal'at Sem'an) (Fig. 59) was undoubtedly influenced by the plan of the Domus aurea at nearby Antioch. (Fig. 55).<sup>75</sup> The original plan may only have existed as an octagon rather than with four radiating arms, as it had later. Possibly the octagon was open to the sky with the pole of S. Simeon in the centre.<sup>76</sup> It was on the top of this pole that the Stylite sat for thirty years until his death in 459. No precise date of construction for the building is known but because the Church of S. Phokas at Basufan (491-2) was copied from it the church of S. Simeon Stylites must date from the third quarter of the fifth century.<sup>77</sup> The diameter of this octagon is 27 meters. It was, therefore, quite large, possibly too large to be covered with a dome. There is no suggestion of an association of this church or that at Garizim with the Anastasis.

The Church of SS. Sergius and Bacchus (527-36, Fig. 60) is certainly not linked to the Anastasis, indeed, its resemblance to the octagon at Antioch seems questionable, and yet, W. Dynes is not the only historian to associate the two.<sup>78</sup> Krautheimer feels that the "Double-shell" plan of an octagon inside of a square or rectangular structure such as Justinian's Hagia Sophia or SS. Sergius and Bacchus in Constantinople, "Had their place in architecture ever since Constantine's Golden Octagon at Antioch."<sup>79</sup>

The plan of SS. Sergius and Bacchus, in turn, seems to have influenced the Chrysotriklinos in Constantinople and



the Church of S. Vitale in Ravenna.<sup>80</sup>

Besides the octagons already mentioned, there are a number of others in the Middle East, none of which, however, could be considered derivatives of the plan of the Anastasis. They are, rather, based on the Domus aurea or the Tomb of the Virgin, or possibly, but unlikely, the octagonal apse of the Church of the Nativity at Bethlehem. One of the characteristics of the remainder of these octagonal buildings is the triple apse; a feature probably derived from the auxiliary chapels to the right and left of the main apse in the basilica churches of Syria. These rooms were known as the prothesis and diaconicon.

One such church is a rather small chapel at Mir'ayeh in north Syria (Fig. 62).<sup>81</sup> Except for the two auxiliary rooms, the plan of this chapel is almost identical to the plan of the Tomb of the Virgin. A semioctagonal chapel at Midjleyya (Mondjelein) (Fig. 63) in south central Syria must also have been designed after one of the octagons to the south.<sup>82</sup> Again the triple apse is used, but in this small building the apse is moved into the octagon so that only half of it remains. Butler claims this building was built in the sixth century.<sup>83</sup>

At Ezra (Zorah), the Church of S. George (Fig. 64) (515) was planned similar to the chapel at Mir'ayeh.<sup>84</sup> This church was smaller than the Cathedral of Bosra, which was some three years older. The inner span of the church at Ezra was 10,15 meters. The apse of this church was semicircular and projected to the rear of the rectangular building.

The Cathedral of Bosra (Fig. 65) followed the same plan except for a more complex apsidal area and a circular, rather than an octagonal, interior.<sup>85</sup> Dedicated to SS. Sergius, Bacchus and Leonticus, it was completed in 512-13. The central room was larger than the octagon at Kal'at Sem'an measuring some 36 m. in diameter.<sup>86</sup> It was 50 meters long. The Church of St. John the Baptist in Gerasa (531) (Fig. 66) was only half that length (25,50 meters) but otherwise it followed the plan of the Cathedral at Bosra.<sup>87</sup>

But, as was mentioned earlier, these octagonal buildings are part of a tradition which skirts the Rotunda and other circular buildings, being derived, instead, from such octagons as the Domus aurea, the Tomb of the Virgin, the Mausoleum of Diocletian at Spalato, and the Church of the Nativity at Bethlehem. Judging by these examples it seems unlikely that any Christian church with an octagonal plan, built before the eighth century, was ever attempting to copy the Anastasis.

There is one other octagonal structure built in the period from the fourth to the end of the seventh century in the Mediterranean basin which is associated with the Anastasis. It was not Christian but Moslem. Known as the Dome of the Rock, (Fig. 67a, b), this octagon was built by Khalif abd al-Malik at the end of the seventh century in the Holy City, Jerusalem.<sup>88</sup> Construction probably began in ca. 687-9 and continued until 691 (72nd year of the Hegira).<sup>89</sup> Like the Anastasis, it was subjected to a number of restorations, but, unlike its Christian predecessor, it was never totally destroyed.<sup>90</sup> Built on the

summit of Mount Moriah, this moslem building marks the stone from whence Muhammad was supposed to have ascended into heaven. The selection of the site was not only based on religious grounds, but on political grounds as well - a move which recalls the intentions of Constantine in constructing the Holy Sepulchre. Abd al-Malik was seeking to gain the support of followers of Islam from a rival khalif or religious leader. The story was recorded by Ya 'qubi in 874:

Then 'Abd al Malik forbade the people of Syria to make the pilgrimage (to Mecca); and this by reason that 'Abd Allah ibn Zubair was wont to seize on them during the time of the pilgrimage, and force them to pay him allegiance - which, 'Abd al Malik, having knowledge of, forbade the people to journey forth to Makkah (Mecca). But the people murmured thereat, saying, 'How dost thou forbid us to make the pilgrimage to Allah's house, seeing that the same is a commandment of Allah upon us?' But the Khalif answered them, 'Hast not Ibn Shihab az Luhri (a celebrated nationalist) told you how the Apostle of Allah did say - Men shall journey to but three masjids, Al Masjid Haram (at Mecca), my Masjid (at Madina), and the Masjid of the Holy City (Jerusalem)? So this last is now appointed for you in lieu of the Masjid al Haram. And this Rock, of which it is reported that upon it the Apostle of Allah set his foot when he ascended into heaven, shall be unto you in the place of the Ka'abah (a small sanctuary in Mecca which the moslems faced in prayer).' Then 'Abd al Malik built above the Sakkrah a Dome (Dome of the Rock), and hung it around with curtains of brocade, and he instituted door-keepers for the same, and the people took the custom of circumambulating the Rock, even as they had paced around the Ka'abah, and the usage continued thus all the days of the dynasty of the Omayyads.<sup>91</sup>

Abd al-Malik was not the first moslem Khalif to visit the Holy City or to see the Holy Sepulchre. The moslems conquered Jerusalem in ca 637, five years after the death of Mohammad. In the accounts of Eutychius, Khalif Omar entered the city at that time and came to the Anastasis with the Christian Patriarch,

Sophronius. The patriarch invited him to pray on the site of Christ's tomb but the arab refused and moved to the propylaea for his devotions.<sup>92</sup> Shortly thereafter Omar built the first mosque in the city, on the site of Solomon's Temple.<sup>93</sup> The mosque of Omar remained in use until the new Dome was built.

No mention of the Anastasis is made in the ninth century description of the writer Ya 'qubi but in the next century the arab writer Muqaddasi (985) suggests that the architect of the Dome was attempting to outshine the beauty of the Anastasis:

And in like manner the Khalif 'Abd al-Malik, noting the greatness of the Church of the Holy Sepulchre and its magnificence, was moved lest it should dazzle the minds of the Muslims, and hence erected above the Rock the Dome which is now to be seen there.<sup>94</sup>

Although this author makes no mention of the Dome copying features of the Anastasis there is every reason to believe that the arab architects based some of their plan on the neighbouring Christian monument. For example, the diameter of the Anastasis inner colonade (ca. 20,30 meters) was transferred to the inner colonnade of the Dome (20,34 meters).<sup>95</sup> The drum of the moslem building rested on four piers and twelve columns.<sup>96</sup> Like the drum of the Anastasis it was pierced by a number of windows, in this case sixteen. Here the resemblance stops.

The moslem architects seemed to have borrowed features for the Dome of the Rock from other Christian buildings as well. Creswell claims that the doors of the Dome are very similar to those on the Cathedral of Bosra and St. George at Ezra.<sup>97</sup> And it seems likely that the octagonal character of

the plan was borrowed from the Tomb of the Virgin in the Valley of Joshaphat near Jerusalem. Although historians suggest that the octagonal plan seems to have resulted from borrowings from the Anastasis to attribute this plan to the Rotunda except for the inner colonnade is highly suspect. It is true that the Mauss system for determining the external diameter of the building from the diameter of the inner colonnade does apply to the Dome of the Rock just as it seems to apply to the Anastasis, but this does not explain the octagonal shape of the moslem building or the circular outer wall of the Rotunda of Christ's tomb. If the octagon was not borrowed from the Tomb of the Virgin, then possibly from one of the other octagonal buildings such as S. Simeon Stylites or the Theodokos at Garizim a short distance to the north.<sup>98</sup>

Only one conclusion can be drawn from a study of octagonal structures built in the Byzantine period from the fourth to eighth centuries - there are no octagonal buildings derived from the plan of the Anastasis as there were in the Medieval period. The only building which could be an exception is the Dome of the Rock. It did borrow some features from the Anastasis but it also borrowed from other buildings and, therefore, was eclectic rather than a direct copy of any one building.

As far as circular copies of the Anastasis are concerned, there seem to be no more than two possible examples; the Church of S. Stefano Rotondo, Rome and the Church of SS. Karpos and Polykarpos in Constantinople.

There were certainly no rotunda churches, either circular or octagonal, in the Mediterranean basin which were built with the intention of duplicating the size and shape of the Anastasis, and also confirm the copy by dedicating it to the Resurrection.

Briefly, let us look at the Medieval octagonal copies of the Anastasis once again. It is very interesting that there is no known octagonal copy prior to that at Paderborn, dated 1036. And even more interesting is the fact that the Anastasis was destroyed only thirty-six or thirty-seven years before! Khalif Hakem had tried very hard to level the building and remove any trace of it. Agreements were made to permit the Christians to rebuild it in 1012, two or three years after he had leveled it, but, either the Christians never started work on it, or could not afford to continue, because the agreement had to be renewed in 1027 with the Khalif's son Ez-Zahir and Constantine VIII. Yet another agreement was necessary. In 1037 a third agreement was made between Khalif El-Mustansir and Emperor Michael Paphlagon.<sup>99</sup> In 1034 an earthquake rocked the city and, possibly, the Anastasis suffered more damage.<sup>100</sup> It is, therefore, quite possible that the Anastasis was not in existence in 1036, or in the twenty year period immediately before the construction of the octagon at Paderborn dedicated to it! But the Dome of the Rock was standing. In 1016 only the dome had collapsed and restorations were made in 1022, 1027 and 1033.<sup>101</sup> The building, however, remained. It could very well be, then, that the person sent to

make copies of the Anastasis plan used the Dome of the Rock instead. This person, Abbot Wino of Helmershausen, was asked by Bishop Meinwerk of Paderborn to 'mensuras eiusdem ecclesie et ... et mensuras eiusdem ecclesie et sepulchri sancti reliquas referente...'<sup>102</sup> But, if the Anastasis was not there, while the Dome was, then Wino may have simply thought the Anastasis looked like the moslem structure and copied the latter as a substitute. This plan may then have been used to build the octagonal building at Paderborn and establish the Medieval tradition of octagonal copies of the Holy Sepulchre.

## CHAPTER IV

### THE HOLY SEPULCHRE COMPLEX

The Constantinian complex of the Holy Sepulchre was composed of the Tegurium and the Martyrion. When the Rotunda was completed by the end of the fourth century the basic group of buildings did not change. The tomb area was still separated from the basilica proper, creating an axial plan of two buildings. The shape of the basilica was, of course, rectangular, while the Anastasis was circular. The plan, then was quite distinctive. It seems plausible that this plan may have been transposed to other church buildings, but is such a supposition actually true?

There is every reason to believe that the general plan of the Holy Sepulchre complex was well known. We have already seen that Arculf described and prepared plans of the basilica and rotunda (Fig. 8a, b), and he is only one of many pilgrims to visit the site in the first four centuries of its existence. His plan not only showed the relationship of the two major buildings, one to the other, but it also located many of the sacred spots within the building group. Some of these areas are; the exedra for the True Cross, the Chapel of the Virgin (south of Calvary), the Chapel of Calvary and the altar dedicated to Abraham on the north side of the Anastasis court.<sup>1</sup> It would not have been at all difficult to construct a group of buildings in some distant country such as France from the basic plans which Arculf had prepared for his text.



Only one complex of buildings composed of a rotunda and a rectangular building is known to have been dedicated to the Holy Sepulchre. It is the Church of S. Stefano in Bologna, also known as San Sepolcro.<sup>2</sup> The date of the construction of this group of buildings is not definitely known, and, although buildings seem to have existed on the site as early as the fifth century, no reference to it as San Sepolcro was made until the end of the ninth century and thereafter. Since no earlier remains of the building or complex are known, it is difficult to say what form the original plan took, but it is likely that the complex intended to reproduce the group in Jerusalem was not begun until the eighth or ninth century.

Such a late date would be in accord with the research of Carol Heitz on Carolingian architecture and liturgy.<sup>3</sup> He has found that the westwork, or elaborate architecture of the west end of a number of Carolingian cathedrals, was associated with the Anastasis of the Holy Sepulchre. It was at this end of such churches that certain services, similar to those held in Jerusalem, were performed. He includes in his list the Church of S. Requier at Centula (Fig. 73), S. Wandrille in ancient Fontanella, the Cathedral of Reims, the Abbey of Corvey, and, from the tenth century, the church at Minden.<sup>4</sup> Except for the last example, all the buildings date from the ninth century - the same century in which S. Stefano, Bologna, was associated with the complex in Jerusalem. It would, therefore, appear that this Italian building was influenced by architectural practises to the north, during the Carolingian period.

Since history is a continuum, and since the Church is a rather conservative institution, it is likely that this phenomenon of constructing buildings to reproduce the sites of the Holy Sepulchre, namely, the Anastasis and the Martyrion, in the westwork and the east end of Carolingian cathedrals respectively, was not a sudden development of the eighth or ninth century. Roots for such a tradition may very well originate in the fourth and fifth centuries, from the liturgical traditions of Syria and Palestine.

Church complexes were not uncommon in the Byzantine period. Not far from Jerusalem, in fact, there was a group of churches which may have been influenced by the architectural grouping of the Holy Sepulchre. The buildings were associated with the Cathedral of Gerasa (Fig. 69).<sup>5</sup> The basilica was oriented in a direction opposite to that of the Martyrion, but entry was made from the same direction - the east. An atrium was located to the west of the Cathedral, duplicating the design of the Holy Sepulchre at this end of the basilica. Both courts were surrounded by porticos. Slightly to the west of centre of the atrium, a square ciborium was positioned over a fountain. We are immediately reminded of the Tegurium which also, was located in a courtyard and served to mark the "fountain of life." A small chapel on the south side of the apse, at Gerasa, may have been intended to duplicate the location of Calvary. Calvary was stationed in the transept arm of the Martyrion, to the south of the Hemisphairion or apse. The group of buildings at Gerasa, dating from the

early fifth century, almost duplicate those of the Holy Sepulchre - all except for the Rotunda. It would seem, then, that there is a possibility of this group being a derivative of the Holy Sepulchre complex.

This is not the only complex built in the Byzantine period which may have been designed after the Holy Sepulchre. At Djemila (Cuicul, Fig. 70), in south-east Algeria, there was a large five aisled basilica built next to a smaller, earlier church. It was also associated with a rotunda - the baptistry referred to earlier.<sup>6</sup> The construction of the larger and more lavish church is recorded as 411; that is only a decade or two after the date of the complex at Gerasa. No efforts were spared to make the interior of the Cathedral one of the most impressive in the region. For example, instead of using only one column to form the colonnade in the aisles, double columns were used. This addition, for purely decorative purposes, must have constituted a sizable expense. The circular baptistry, though located to the east of the two churches, was on axis with the older and smaller of the two (Fig. 53).<sup>7</sup> This detail may somewhat weaken the possibility of this group being a derivative of the Holy Sepulchre, but, nevertheless, the two groups do have some characteristics in common.

The association of the complex at Djemila with the complex in Jerusalem was first suggested by Carol Heitz. She also associated two other North African church groups with the Holy Sepulchre, but neither association stands unquestioned. Her examples were located at Timgad and Tipasa.<sup>8</sup>

The buildings at Tipasa (Fig. 71) are too confused to determine if they resemble the Holy Sepulchre complex. The basilica has nine aisles - far more than in the Martyrion, and there is no court or atrium behind the apse. The baptistry was located to the south of the church, a position similar to that of the baptistry in Jerusalem, but here the resemblance ends. There is no rotunda present in the group. Heitz does not distinguish which church at Tipasa she is referring to, but a second basilica, S. Salsa, is also unrelated to the Holy Sepulchre complex.<sup>10</sup>

An examination of the basilica at Timgad (ancient Thamugadi) results in the same conclusions.<sup>11</sup> It was a rather large church for North Africa, measuring some 100 meters in length. A court was located to the rear of the apse, at the east end, surrounded by porticos on all four sides, but, otherwise, there are no other features which would commend it as a derivative of the Sepulchre complex.

There is yet another church complex in North Africa, a complex not mentioned by Heitz, but one with a court to the rear of the apse. It was located in the suburb of Carthage, in Damous-el-Karita.<sup>12</sup> Like the basilica at Timgad, it was very large - some 65 meters from front to back. The entire complex, from end to end, was 150 meters. The basilica was composed of eight aisles and was preceeded by a semicircular atrium. A four aisled hall was located behind the apse, and in this hall there was a semi-subterranean rotunda, covered by a dome. The origin of the structures behind the apse may have been the

Sepulchre. The plan, according to Richard Krautheimer, was derived from a Constantinian model, but he fails to mention which building he had in mind.<sup>13</sup> Possibly he was thinking of the Holy Sepulchre, but, the information regarding the remains of the church at Damos-el-Karita is not sufficient to conclusively link it as a derivative of any particular architectural structure whatsoever.

Outside of North Africa and to the east of Italy, at Salona, on the Dalmation coast, there is a double cathedral (Fig. 72) which also has been associated with the Holy Sepulchre complex, but, again, without sound reason.<sup>14</sup>

In the Carolingian period documents record how the cathedral, with its elaborate westwork, served to duplicate the sites of Jerusalem. During the Christian festival of Easter and Lent, Carolingian clergy performed services similar to those held at the Holy Sepulchre. In Jerusalem, certain services were conducted at the tomb of Christ and at Calvary, and elsewhere, but in Centula, at S. Requier, such facilities were not available in the same form and, therefore, substitutes had to be created. This was accomplished by developing the west end of the church nave to serve as an "Anastasis" and to place a "Calvary" in the centre of the nave, near the new church entrance.

Carol Heitz, who has brought this information to light, has compared the liturgical order and the location of its performance in Carolingian to that in Byzantine churches. From records of the Carolingian writer, Angilbert, and the

fourth century accounts of Aetheria, the pilgrim from Gaul, Heitz found that services on different days of Holy Week were held in different locations.<sup>15</sup> In Holy Week, Aetheria mentions that on Monday and Tuesday, services were held in the Martyrion and the Anastasis, on Ash Wednesday they were performed at Eleona, on the Mount of Olives, on Thursday at the Anastasis, on Good Friday at Sion, and on Saturday at Calvary. In the Carolingian period, five hundred years later, Angilbert states that the westwork served as the Anastasis, while services associated with Calvary in Jerusalem centuries earlier, were held in the nave of the church.<sup>16</sup> Thus, east end, dedicated to S. Requier, seemed to serve in the same capacity as the Martyrion had in the time of Aetheria's visit in the fourth century.

If the liturgical orders in the ninth century were similar to those in the fourth and fifth centuries, then, it is fair to assume that churches outside of Jerusalem had to improvise an area in the church during Lent to serve as sites of the Holy Sepulchre.<sup>17</sup> This may be the case with such a complex as that in Salona or of those in North Africa. But nothing can be determined from simply examining their plans.

Other Christian traditions were borrowed from Jerusalem and used in Italy in the eighth century and probably earlier. For example, a relic of the True Cross was carried in procession in Rome, by the Pope, in the same way a replica of the Cross was, and still is, carried along the Via Dolorosa in Jerusalem.<sup>18</sup> The relic was returned to S. Croce in Gerusalemme, in Rome

after the annual journey. There were precedents, then, for the transfer of a liturgical tradition from Syria to Italy and Europe.

In searching for a church, built prior to the eighth century, especially designed for services during Lent, the Cathedral of Ravenna, (the Basilica Ursiana) comes immediately to mind. The features which commend it as a copy of the Martyrion have already been discussed. They include the dedication, the orientation, the number of aisles, the number of columns and the semioctagonal apse. But there are still two other interesting features of this church not formerly referred to. One is the existence of an elaborate ambon in the centre of the nave, and the second is the apparent evidence of the church having two altars. It is not clear as yet whether the main altar was located with the ambon, as suggested by Ricci, or whether there were two altars at that point - one dedicated to the "Holy Resurrection" and one to S. Anastasia.<sup>19</sup> If future research does determine the location of the two altars it may also find that this church was a precedent for the Carolingian buildings discussed by Heitz.

E. Baldwin Smith in The Dome, A Study of the History Ideas presents a lengthy discussion of the ambon or pulpitum found in the centre of the nave of a number of basilicas in the region of Syria.<sup>20</sup> This must have been the source of the ambon in the centre of the Basilica Ursiana, imported by the Syrians who formed a large colony in Ravenna at the time of the basilica's construction. Smith believes that the ambon of

the Syrian basilicas is related in function to the bemas found in martyria churches at S. Babylus (381), Seleucia Pieria (5th C., Fig. 75), S. Sergius, Rasafa (mid 5th C., Fig. 74) and Hagia Sophia at Edessa (rebuilt 539).<sup>21</sup> His theory is that they were designed to serve both as a place to read the lessons and to hold "The Lord's Table" or the "Place of the Commemoration."<sup>22</sup> (Fig. 76) This function, associated with the Last Supper and the death and resurrection of Christ, may have developed from services held at the Holy Sepulchre, at the altar before the tomb of Christ.

Although the Cathedral of Ravenna does not resemble the axial plan of the Martyrion and the Anastasis, there are a number of Cathedrals which do.

The Cathedral at Parenzo (Fig. 77) bears the strongest resemblance to the group in Jerusalem.<sup>23</sup> An octagonal baptistry is located on axis with the church, at the west end, before the main entrance. A triconch martyrium was located to the north side of the apse, in a position similar to small chapels on the side of Syrian churches. A court with porticos joined the octagon to the front of the church. These features seem to have come directly from the Cathedral of Aquelia, built some fifty years earlier, which, in turn, may have been influenced by the Holy Sepulchre.<sup>24</sup> The Cathedral, like S. Peter's at Brescia, had a polygonal baptistry in the atrium of the church.<sup>25</sup>

The Cathedral of Torcello (Fig. 78), in the lagoon of Venice, is another example of a cathedral with a circular



baptistry at the front of the church.<sup>26</sup> All of these Italian churches may have been directly or indirectly influenced by the layout of buildings at the Holy Sepulchre.<sup>27</sup>

Outside of Italy this basilica-rotunda plan is not so common. The church of S. Leonidas (Fig. 79), in the harbour of Corinth, has a semicircular structure to the front of the church, but this does not associate it with the type of plan used at Jerusalem.<sup>28</sup> A round martyrion was attached to the front of the Church of S. Eupheme at Chalcedon. It, however, was too early in date to be a copy of the Holy Sepulchre.<sup>29</sup>

In conclusion, there are no group of churches or buildings built before the eighth century which are known to have duplicated the Holy Sepulchre complex. There are churches which resemble the complex, and there are several groups of churches which may have served to substitute as "sites of the Holy Sepulchre" for Lenten services, but such associations cannot be verified.

It is quite likely that the Cathedral of Ravenna, built by Ursian, was a forerunner of the Carolingian Church's use of Lenten liturgics. The use of a liturgy with special Lenten "sites" would be entirely in order, considering the church's dedication to the Resurrection. Undoubtedly the Basilica was intended to duplicate both the form and the function of the Holy Sepulchre.

### CONCLUSIONS

The Holy Sepulchre did not influence the design of Christian church architecture in the Mediterranean basin during the Byzantine period as much as might have been expected of such an important church. The lack of copies and derivations was not a result of the church being isolated because it was not. Untold hundreds of pilgrims must have journeyed to the Holy Land, judging by the number of itineraries which still remain. The fact that descriptions of pilgrimages were recorded, with maps and plans upon occasion, must have meant that persons in towns where the pilgrims made their home were able to share in the experiences of the trip. But all this exposure to the Holy Sepulchre did not seem to increase its impact or influence as an architectural monument on the construction of churches in the Mediterranean basin.

Only one church, the Basilica Ursiana in Ravenna, can claim the honour of being a proper copy of the Holy Sepulchre, not only because it was dedicated to the Anastasis or the Resurrection, but it also copied a number of architectural motifs directly from Constantine's basilica. Included in these features were the number of columns in the nave, the number of aisles in the nave, a semioctagonal apse and the orientation to the east. To enhance its claim even further, there are suggestions of two altars with different dedications in turn, suggesting a use of a liturgy similar to the one followed in the carolingian

churches of France during Lent. It was in these churches that the westwork was designed to duplicate the location of the Anastasis for Easter services. With such a multitude of details linking the Holy Sepulchre and the Cathedral of Ravenna, it must be concluded that the latter was intended to copy the former - even if there was no attempt made to copy the Rotunda at Ravenna.

Although the Eudoxian church at Gaza shared the same dedication as the Basilica Ursiana and the Holy Sepulchre, its architecture was not based on the complex in Jerusalem. The cross plan, which the architect from Antioch employed, was not derived from any building on the site of Christ's tomb.

The Tegurium was never copied as a church or chapel even though it stood directly over the cave in which Christ's body was laid. True, it was never used as a congregational structure, but still, it was able to hold eight or nine people. It was by no means a small structure (Fig. 1). But it must have been looked upon as a reliquary and, since reliquaries never served as models for architectural structures, it is unlikely that any church or chapel would ever have been modeled on its design.

Attempts to find derivations of the Martyrion have not proved too successful. Its most distinctive features seem to have been its five aisles, its 65 columns and its unique apse, known as the hemisphairion. No church plans with these features have been found other than the Cathedral of Ravenna, although, in some plans, one or other of the features may have been employed in a church. In such cases the architect may have been

making reference to the Holy Sepulchre but it seems unlikely that he was trying to copy it.

There is no circular building which both duplicates the form of the Anastasis and its dedication to the Resurrection. But, though there are no "copies" of this large building, derivations of it exist in the form of the Church of S. Stefano Rotondo in Rome, the Church of SS. Karpos and Polykarpos in Constantinople and the moslem Dome of the Rock in Jerusalem. The majority of rotundas, built in the period from the fourth to the eighth centuries, particularly the octagons, must have been derived from such examples as the Tomb of the Virgin or the Domus aurea, or possibly the mausoleum of Diocletian at Spolato. But the fact is, that the Rotunda was not as an important a model for architectural structures in this period as it would be during the Middle Ages after the eighth century, and particularly after the Crusades.

It was not because the Byzantine church failed to duplicate plans of churches with their dedications, that the Anastasis was not "copied". One need only cite the churches dedicated to the Cross to see that it was quite popular to "copy" a church. Throughout the Mediterranean basin and into France, churches with a cross plan were dedicated to the "True Cross". The only exception is the converted hall of S. Croce in Gerusalemme in Rome. Similarly buildings associated with the Virgin or dedicated to the Theodokos were either circular or octagonal rotundas. But no such tradition ever developed around the plan of the Anastasis.

There are a number of church complexes which may have been designed to duplicate the Holy Sites or the group of buildings at the Holy Sepulchre. They appear in Dalmatia, in North Africa, in Italy and north of Jerusalem, at Gerasa. It would seem that the church liturgy for Lenten services needed areas in the church to duplicate certain sites found in the Holy Sepulchre, and possibly these church complexes grew up around the use of this liturgical order. Except for the apparent similarities in the general plans of some of these church complexes, there is no documentary evidence to associate the groups with the Holy Sepulchre. There was such evidence, however, in the ninth century. The Church of S. Stefano, Bologna, was referred to as the "New Jerusalem" in that century, and although this is the earliest documented group to copy the Holy Sepulchre, there may have been others still unknown, from an earlier period in history.

In the examination of building groups which may have been derived from the Sepulchre, a number of churches with a rotunda on axis with the basilica were found and examined as derivatives of the Martyrion and Anastasis grouping, but again, no firm relationship could be established.

Why the Holy Sepulchre seems to have been such an unimportant architectural influence in the Byzantine period is difficult to explain. It must have been the focus of every Christian's attention and yet it would appear that Christians failed to notice it as a great architectural achievement of the Christian Church.

CHAPTER 1 FOOTNOTES

- 1 Eusebius, "Life of Constantine" (Vita Constantini), trans., John H. Bernard, in The Churches of Constantine at Jerusalem: Being Translations from Eusebius and the Early Pilgrims, (London: Palestine Pilgrims' Text Society, 1898), III, 24, p. 3. Subsequently referred to as Eusebius, "Vita", III, 24, p. 3.
- 2 Rev. R. Willis, "The Architecture History of the Holy Sepulchre", George Williams, The Holy City - Historical Topographical and Antiquarian Notices of Jerusalem, (Vol. II, ed. 2; London: John W. Parker, 1849), p. 282 f.
- 3 L. E. Cox Evans, "The Holy Sepulchre," Palestine Exploration Quarterly, (London: Palestine Exploration Fund, July - December 1968), p. 112 f.
- 4 Eusebius, "Vita", III, 34, p. 7.
- 5 Arles ivory buckle. Notre Dame-la Major. Neil C. Brooks, "The Sepulchre of Christ in Art and Liturgy with Special Reference to the Liturgical Drama", University of Illinois Studies in Language and Literature, Vol. VII, 2, (May, 1921), p. 19 f.
- 6 British Museum Ivory. London. (ca. 420, Conant). Ibid.; André Grabar, Martyrium, Recherches sur le cult des reliques et l'art chrétien antique, (Limoges: Collège de France, 1946), p. 227; Kenneth Conant, "The Original Buildings at the Holy Sepulchre in Jerusalem", Speculum, Vol. XXX, (October, 1956), p. 4. Conant has confused the British museum and the Munich works with each other.
- 7 Trivulzio Ivory. Milan. (ca. 400, Conant). Brooks, op. cit., p. 26; D. V. Ainalov, The Hellenistic Origins of Byzantine Art, trans. Elizabeth and Serge Sobolevitch, ed. Cyril Mango. (New Brunswick, N.J.: Rutgers University Press, 1961), p. 144 f; O. M. Dalton, Byzantine Art and Archaeology, (New York: Dover Publications Inc., 1961, Reprint of Oxford University Press, 1911), p. 191; Oskar Wulff, Altchristliche und Byzantinische Kunst, (Handbuch der Kunstwissenschaft), (Vol. 1, II; Berlin: Akademische Verlagsgesellschaft Athenaion, 1918), I, p. 187; Conant, loc. cit.
- 8 Munich Ivory. (ca. 415, Conant). Brooks, op. cit., p. 22; Louis Bréhier, La sculpture et les arts mineurs byzantines, (Paris: Les Éditions d'art et d'histoire, 1936), p. 70; Conant, loc. cit.
- 9 G. T. Rivoira, Roman Architecture and its Principles of Construction under the Empire, trans. G. McN. Ruchford, (Oxford: Clarendon Press, 1925), p. 162; Grabar, op. cit., p. 271-2.

Chapter I Footnotes (continued)

- 10 G. T. Rivoira, Lombardic Architecture: Its Origin, Development and Derivatives, trans. G. McN. Ruchford, (Vol. II, Oxford: Clarendon Press, 1933), p.15; Rev. Willis, op. cit., p. 2. According to the Rev. Willis, the west end was enlarged after 1587. The plan of the Tegurium with the entrance to the east and an apse at the west resembles the bema found in later Syrian churches. (Fig. 72). See Note 20, chapter III.
- 11 Hugues Vincent and F-M Abel, "Jérusalem Nouvelle," Jérusalem. Recherches de topographie, d'archéologie et d'histoire, Vol. II, fasc.II; Paris: J. Gabalda, 1914), p. 233.
- 12 E. Baldwin Smith, The Dome: A Study in the History of Ideas, (Princeton: Princeton University Press, 1956), p. 54; Bernard, op. cit., p. 30.
- 13 David Talbot Rice, The Beginnings of Christian Art, (London: Hodder and Stought, 1957), p. 35; Grabar, op. cit., p. 276; Smith, op. cit., p. 98; Wulff, op. cit., p. 115; The Sancta Sanctorum reliquary has been dated by Grabar as 6th or 7th century while Wilhelm Nyssen (Das Zeugnis des Bildes im Frühen Byzanz, [Bd. II; Breisgau: Lambertus Verlag, 1962]), Charles Rufus Morey (Early Christian Art, An Outline of the Evolution of Style and Iconography in Sculpture and Painting from Antiquity to the Eighth Century, [Princeton: Princeton University Press, 1941]), and Oscar Wulff (op. cit.) date it in the 6th century.
- 14 Rev. Willis, op. cit., p. 176. Arculf made reference to the altar before the Tegurium entrance claiming that it was made from half of the stone door which once served to close the tomb entrance. Bernard, op. cit., p. 32.
- 15 The Rabbula Codex is dated 586 by references in the text. It was written by a Syrian monk, Rabbula, in a cloister at Zagbar in Mesopotamia. Nyssen, op. cit., p. 77; Morey, op. cit., p. 116 f; Ainalov, op. cit., p. 72. The Syrian plate found in Perm probably dates from the 6th or 7th century. Ibid., p. 257.
- 16 Carl Maria Kaufman, Handbuch der Christlichen Archäologie, (Paderborn: Druck und Verlag von Ferdinand Schöningh, 1913), p. 309.
- 17 The Coptic Censor. 6th C. J. Formigé, "Un plan du Saint-Sépulchre découvert à la basilique de Saint-Denis", Monuments et Memoiries, Vol. XLVIII, 2 (1954), p. 122; Grabar, op. cit., p. 89.

The Dumbarton Oaks stone relief. Paul A. Underwood, "The Fountain of Life in Manuscripts of the Gospel," Dumbarton Oaks Papers, No.5 (Cambridge: Harvard University Press, 1950), p. 91.

Chapter I Footnotes (continued)

- The ampullae. Ainalov, op. cit., p. 224-48; Morey, op.cit., p. 269; Dalton, op. cit., p. 625.
- 18 The mosaics of S. Apollinare Nuovo, Ravenna are dated 500-520 A.D. by F. van der Meer and Christine Mohrmann, Atlas of The Early Christian World. trans. and ed. Mary F. Hedlund and H. H. Rowley, (Toronto: Thomas Nelson and Sons, 1959), p. 88, n. 231; Smith, op. cit., p. 24.
  - 19 Bernard Goldman, The Sacred Portal, (Detroit: Wayne State University, 1966). p. 69-124.
  - 20 Bernard, op. cit., p. 23; Vincent, op. cit., p. 216; Conant, op. cit., p. 4.
  - 21 Underwood, op. cit., p. 53.
  - 22 Grabar, op. cit., pp. 66, 77. Smith, op. cit., pp. 55, 108, 111. The oldest ciborium edicula with a square plan marks the tomb of two saints at Kaossie-Antioch. The central edicula was four rooms attached, one per side. The mosaic pavement is dated 387. Grabar, op. cit., p. 77.
  23. Smith, op. cit., p. 110.
  - 24 The 4th century glass cup now at Tunis in the Bardo Museum was found in the Baths of Antoninus at Carthage. André Grabar, Early Christian Art: From the Rise of Christianity to the Death of Theodosius, 200-395, trans. S. Gilbert and J. Emmons, (New York: Odyssey Press, 1968), p. 276. The 4th century date given the glass by Grabar may prove to be a century or more too early judging by the similarity in representation of the martyrion with the ampullae at Monzo dated to the 6th century.
  - 25 Brooks, op. cit., p. 19.
  - 26 A. A. Vasiliev, History of the Byzantine Empire, (Vol. I;II; Madison and Milwaukee: University of Wisconsin Press, 1964), I, p.96 f.
  - 27 Adolf Struck claims the Church of the Saviour at Plataniti (ca. 1000) was derived from the tomb of Perikleia in Termissos. Adolf Struck, "Vier Byzantinische Kirchen der Argolis: Plataniti, Chonika, Merbaka und Areia," Mitteilungen des Kaiserlich Deutschen Archäologischen Instituts, Athens, Vol. XXXIV (1909), pp. 191,195,196.
  - 28 Smith, op. cit. pp.49, 144; Jean Ebersolt, Monuments de'architecture byzantine, (Paris: Les éditions d'art et d'histoire, 1934), p. 163 n. 120.



Chapter I Footnotes (continued)

- 29 Smith, op. cit., p. 59; Grabar, Martyrium, p. 84. The domical mortuary and domical baptistry traditions were not native to Syria or the region to the east. The first free standing, domed, cylindrical tomb still extant is at "Amrith. This monolithic stele possibly dates from the period of Herod the Great. Two other towered tombs exist in the area of Jerusalem, the tomb of Absalom and the tomb of Zacharias. The former was a funnel dome, the latter a pyramidal dome. Smith, op. cit., p. 57.
- 30 Grabar, loc. cit.; Ebersolt, op. cit., p. 11; Smith, op. cit., p. 59.
- 31 J. Strykowski, L'ancien art chrétien de Syrie, (Paris: E. de Boccard, 1936), p. 70; Grabar, Martyrium, p. 86-7.
- 32 Grabar, Martyrium, p. 82.
- 33 Smith, op. cit., pp. 59, 105.
- 34 St. Menas in Abou Mina was built c. 400-410. Ward Perkins, Papers of the British School at Rome, Vol. XVII, (London, 1949), p. 40; Grabar, Martyrium, p. 82; Smith, op. cit., p. 59; A. Khatchatrian, Les baptistères paléochrétiens, Plans, notices et bibliographie, (Paris: Centre national de la recherche scientifique, 1962), p. 61.
- 35 Grabar, Martyrium, p. 82. The reliquary of Aachen was made for a "stratigos" of Antioch between 969 and 1080. Smith, op. cit., pp. 121, 122. A reliquary of the Holy Sepulchre (Musée Lapidaire, Narbonne) made from white Pyrenes marble, possibly in the 5th century and measuring 49 x 35 1/2", was found at Narbonne in the substructure of a defensive turret on the city walls not far from the first cathedral. Jean Hubert, Jean Porcher and W. F. Volbach, Europe in the Dark Ages, (London: Thames and Hudson, 1969), p. 349, illustration 17 on page 16. There was also a small edicula similar to the Tegurium on the site of the present-day "confessio" enclosing the tomb of the Apostle in St. Peter's Basilica and surrounded by a low "cancelli". This structure, claimed by Van der Meer to have existed in the fourth century but if so it must be late fourth century, was the memoria Petri proper and was depicted on an ivory reliquary in Pola in Isreia (ca. 400 now in the Museo Civico, Rome). F. Van der Meer, op. cit., p. 62, 147, no. 479.

CHAPTER II FOOTNOTES

- 1 Eusebius, "Life of Constantine" (Vita Constantini), trans. John H. Bernard, in The Churches of Constantine at Jerusalem: Being Translations from Eusebius and the Early Pilgrims, (London: Palestine Pilgrims' Text Society, 1896), III,30, p. 4. Subsequently referred to as Eusebius, "Vita:", III,30, p. 4.
- 2 In 1966, 4th C. walls were found on the north side of the Rotunda in the region of 8, 9 and 12; and, 10 and 16 on the 1962 plan (Fig. 30c). "Jerusalem", Revue Biblique, Vol. LXIX(1962), p. 100-109.
- 3 Kenneth Conant, "The Original Buildings at the Holy Sepulchre in Jerusalem," Speculum, Vol. XXXI (October, 1956), p. 7 f. The source of the illustrations is given in the index of illustrations.
- 4 Oskar Wulff, Altchristliche und Byzantinische Kunst (Handbuch der Kunstwissenschaft), (Berlin: Akademische Verlagsgesellschaft Athenaion, 1918), p. 328, G. Jeffery, "Papers on the Church of the Holy Sepulchre", Journal of the Royal Institute of British Architects, Vol. XVII (October, 1910), p. 713.
- 5 Conant, op. cit., p. 9f; Eusebius, "Vita", III,38, p. 9. The area of the North transept has been restored according to studies of the mosaic made by Wilpert. Conant, loc.cit.
- 6 Ibid.
- 7 Zev Vilnay, the Holy Land in Old Prints and Maps, (Jerusalem: Rubin Mass, 1963), p. 2; Conant, op. cit., p. 7 - 8.
- 8 Conant, Ibid., p. 44; F. van der Meer and Christine Mohrmann, Atlas of the Early Christian World, trans., Mary F. Hedlund and H. H. Rowley, (Toronto: Thomas Nelson and Sons, 1959) map 39.
- 9 O. Wulff, op. cit., p. 115; F. van der Meer, op. cit., p. 73 n. 175.
- 10 Emile Mâle, The Early Churches of Rome, trans. David Buxton, (London: Ernest Beun Limited, 1960), p. 56.
- 11 Ibid., p. 60; Walter Oakeshott, The Mosaics of Rome from the Third to the Fourteenth Centuries, (London: Thames and Hudson, 1967), pp. 16-17,73. The mosaics according to Emile Mâle date from the period of Pope Sextus III ca. 432 A.D.
- 12 Vilnay, op. cit., p. 6, Fig. 11. Ciampini drawing was in volume III, plate XIII.

Chapter II Footnotes (continued)

- 13 Ibid., p. 5. The Church of San Lorenzo was erected between 579 and 590. Richard Krautheimer, Early Christian and Byzantine Architecture, (London: Penguin Books, 1965), p. 191; Vilnay, op. cit., p. 5. Jerusalem was also illustrated in manuscripts such as the Rossano Gospels (6th century), but the depictions of the Martyrion are unclear, if present. Therefore, they are also unsuitable for the preparation of an elevation of the church built by Constantine.
  
- 14 Eusebius, "Vita", III,38, p. 9. Eusebius text reads: "opposite these (three gates facing the rising sun) was the 'hemisphere' (hemisphairion), the main point of the whole building, stretching out towards the roof of the basilica, which twelve columns surrounded, equal in number to the apostles of the Saviour, adorned on their summits with great bowls (capitals) of silver, which the emperor gave - a splendid offering - to his God." The Greek text is found in Hugues Vincent and F-M Abel, "Jérusalem Nouvelle." Jérusalem. Recherches de topographie, d'archéologie et d'histoire, (Vol. I, II; Paris: J. Bagalda, 1914, II,ii, p. 208. The term *ἡμισφαίριον* (hemisphairion) is noted by Vincent as "inexplicable". The word is not a technical term used for ecclesiastical architecture elsewhere. (See note 15).
  
- 15 Rev. R. Willis translates the word hemisphairion as "apse" (Rev. R. Willis, "The Architecture History of the Holy Sepulchre", George Williams, The Holy City: Historical, Topographical and Antiquarian Notices of Jerusalem, (Vol. I, II, ed. 2; London: John W. Parker, 1849), II, p. 245), while Besant and Palmer (W. Besant and E. H. Palmer, Jerusalem, the City of Herod and Palestine, [1871; ed. 2, 1889], p. 59) used the word hemisphere. Richardson also used the term hemisphere. Richardson, "Eusebius, Life of Constantine" in A Select Library of Nicene and Post-Nicene Fathers of the Christian Church, edited by H. Wace and P. Schaff, (Oxford: Parker and Company and New York: The Christian Literature Co., 1890), reprinted in André Grabar, (Early Christian Art: From the Rise of Christianity to the Death of Theodosius, 200 - 395, trans. Stuart Gilbert and James Emmons, [New York: Odyssey Press, 1968], p. 284). Richard Krautheimer considers the hemisphairion to be a rotunda (Richard Krautheimer, "The Constantine Basilica", Dumbarton Oaks Papers, No. 21 [Washington: Harvard University Press, 1967], p. 133) but in his footnotes refers to Downey's interpretation of it as a half domed apse. Ibid., p. 133, n. 59 referring to G. Downey, "On Some Post-Classical Greek Architectural Terms," Transactions of the American Philological Association, Vol. 77 (1946), p. 22-55) Kenneth Conant "prefer(s) the translation 'that part of the building characterized by a half dome.'" Conant, op. cit., p. 9.

Chapter II Footnotes (continued)

- 16 Krautheimer, op. cit., p. 117.
- 17 Conant, loc. cit.
- 18 Ibid., p. 10. The width is given as 39 meters or 127 feet 8 inches.
- 19 "And forthwith she (St. Helena) dedicated two temples to the God whom she worshipped, one at the Cave of the Nativity, and the other on the Mount of the Ascension". Eusebius, "Vita", III,43, p. 12.
- 20 J. W. Crowfoot, Early Churches in Palestine, (London: Oxford University Press, 1941), p. 22.
- 21 Bernard, op. cit., p. 22, citing "The Pilgrim of Bordeaux, 333 A.D. (Tobler, p. 18)". The latin is cited by Vincent: "...ibidem modo iusso Constantini imperatoris basilica facta est, id est dominicum". Vincent, op. cit., p. 208 (taken from Geyer, Itinera, p. 22s.).
- 22 Richard Krautheimer, "Introduction to an Iconography of Mediaeval Architecture:", Warburg and Courtauld Institute Journal, Vol. V (1942), p. 15.
- 23 Ibid., p. 16.
- 24 Krautheimer, Early Christian..., p. 27. André Grabar, Martyrium, Recherches sur le cult des reliques et l'art chrétien antique, (Limoges: Collège de France, 1946), p. 206; Walter Lowrie, Art in the Early Church, (ed. 2; New York: Harper and Row, 1965), p. 107; Van der Meer, op. cit., p. 62. A photograph of the interior is reproduced by van der Meer as illustration 131.
- 25 The date of renovation by Empress Helena is 337 according to Krautheimer. Krautheimer, "Iconography...", p. 27 n. 28. In 347 or 348 St. Cyrille of Jerusalem wrote in his "Catechistical Lectures: that "already the whole universe is filled with fragments of wood from the cross". The Greek text is found in Vincent, op. cit., III, I, i, p. 208 (citing P. G. 33.IV,10 Cyr. H.)
- 26 Spiro K. Hustof, The Orthodox Baptistry of Ravenna, (New Haven and London: Yale University Press, 1965), p. 2ff; G. T. Rivoira. Lombardic Architecture: Its Origins, Development and Derivations, trans. G. McN. Rushforth, (Vol. I,II; Oxford: Clarendon Press, 1933), I, p. 6 f; Krautheimer, Early Christian..., pp. 334, 138 n. 35.

Chapter II Footnotes (continued)

The exact date of completion of the Basilica Ursiana is not known but Krautheimer places it before 425 (Krautheimer, Early Christian..., p. 138 n. 35). Rivoira suggests a date 370 - 396 because Bishop Ursiana is believed to have died in 384 (Rivoira, op. cit., p. 6). Rivoira supports his theory through a comparison of capitals with tall pulvinos in Ursiana to examples found in the Basilica Severiana (S. Georgio Maggiore) Naples, built by the bishop, Severus 367 - ca. 387 (Ibid., p. 8). Ursian's Basilica may have been built in preparation for receiving the capitol of the Western Empire moved there in 404 from Milan by Honorius. Plans may have been prepared by a Syrian who lived in the large Syrian colony at Ravenna. E. Baldwin Smith, The Dome: A Study in the History of Ideas, (Princeton: Princeton University Press, 1950), p. 142-3.

27 Richard Krautheimer points out that the circle and octagon were often considered to be the same geometric shape. Krautheimer, "Iconography...", p. 7 f.

28 The following is a list of churches known to have a semi-octagonal apse end:

Italy - St. Euphemie, Grado (579)  
The Cathedral of Polo  
A church at Butrinto

Capadocia -  
Eski Andaval near Tyane (basilica of Constantine)  
Panaghia de Goreme  
Tomarza  
Busluk Feseh  
Skupi  
Halvadere  
Sivri Hissar  
St. Andre de Till  
Many churches at Bir Bir Kirche

Palestine -  
St. Theodore, Gerasa (494 - 6)  
St. John the Baptist, Gerasa (531)

Syria - Rasafa  
Sergopolis  
Church of the temple of Baalbeck  
Cathedral of Bosra (512)

South Asia Minor -  
Meriamlek, cupola church

Mesopotamia -  
Mary Yaqub al-Habis

Chapter II Footnotes (continued)

Rhodes - Basilica A (Village d'Arnetha)

Crete - Basilica A, Chersonese of Crete

Constantinople -  
St. Irene

Crimea - the baptistry of the Triconque of Cheronese

Georgia -the Basilica of Pitzundi (6th c.)  
the Cathedral of Ninozminda (6th c.)

Charles Delvoye, "Mémoires et documents, Études d' architecture paléochrétienne et byzantine", Byzantion, Vol. XXXII (1962), p. 306.

- 29 Krautheimer, Early Christian..., p. 137; Grabar, op. cit., pp. 407, 224; Kostof, op. cit., p. 3; Carl-Otto Norstrom, Ravennastudien, (Stockholm: Almqvist and Wiksell, 1953), p. 12. Rainaldus, writing about the church said it was dedicated to the true cross: "a quo habet et nomen et formam". Grabar, op. cit., p. 497. Rivoira dates the building ca. 449, the mausoleum ca. 440. Rivoira, op. cit., p. 32.
- 30 E. Baldwin Smith, op. cit., pp. 14, 34, 39-40; Carl Watzinger, Denkmäler Palästinas; eine Einführung in die Archäologie des Heiligen Landes, (Vol. I,II: Leipzig: J. C. Hinrichs, 1933-5), II, p. 130; Glanville Downey, Gaza in the Early Sixth Century, (Norman, Oklahoma: University of Oklahoma Press, 1963), p. 28; O. P. F-M Abel, "Gaza au VIe siècle d'après le Rheteur Chorikios", Revue Biblique, Vol. XL (1931), p. 12 f; K. A. C. Creswell, Early Muslim Architecture, Vol. I,II; Oxford: Clarendon Press, 1932), I, p. 84. Baldwin Smith associates S. Sergius with the Eudoxiana because Choricus describes S. Sergius as domical with a cruciform plan when he made his "encomion" presentation in honour of the bishop, Marcien. S. Sergius was formerly thought to be dedicated in 532 (536 A.D., Abel, op. cit., p. 12) not 407, the date for Eudoxiana. Smith, op. cit., p. 39, 40. H. Leclercq had preferred the late dedication which is now disputed. Ferdinand Cabrol, Dictionnaire d'archéologie chrétienne et de liturgie, ed. F. Cabrol and H. Leclercq, Vol. XIV (Paris, 1907-37), col. 1496-1500.
- 31 Smith, op. cit., p. 40; Cabrol, loc. cit.
- 32 Watzinger, loc. cit.
- 33 Grabar, op. cit., p. 160; Robert Laffont, Dictionnaire des Eglises de France, Vol. IV (1966), Pt. IV, B 70.

Chapter II Footnotes (continued)

- 34 Cambridge Medieval History, (Vol. II; New York and Cambridge; 1964), p. 147.
- 35 Grabar, op. cit., p. 495.
- 36 Margaret Deanesly, A History of Early Medieval Europe from 476 to 911, (London: Methuen and Co., 1963), p. 277.
- 37 Grabar, op. cit., p. 527.
- 38 Ibid., p. 164.
- 39 Delvoye, op. cit., p. 264.
- 40 "In the chief church (Katolike) called Maturm ( $\mu\alpha\tau\upsilon\rho\iota\omicron\nu$ ), but also Invention of the Cross, 20 ells distant from the church of the Resurrection, are dispose(d) in line, 65 (var.75) columns above and below." This quotation is incorrectly attributed to Sophrone by Vincent (op. cit., p. 226) according to Rivoira (op. cit., p. 14). Vincent, op. cit., p. 233, (Description armenienne des Lieux Saints au VIIe Siecle, traduite d'une traduction russe par R. Nisbet Bain, Quart. Stat., 1896, p. 347; citat. 'Descr. armen.').
- 41 "This first, as the chief part of the whole, the liberality of the emperor beautified with choice columns and with much ornament, decorating it with all kinds of adornments." Eusebius, "Vita", III,34, p. 7.
- 42 See note 14.
- 43 Cabrol, op. cit., Vol. XIV, col. 1496.
- 44 Krautheimer, "Iconography", p. 10 f.
45. Krautheimer, Early Christian..., p. 46.
- 46 Ibid., p. 92. "And at each side of the two porticos, with upper and lower ranges, twin colonnades extended the whole length of the temple, these also have their ceilings ornamented with gold. Of these the colonnades towards the front of the buildings were supported by columns of the very vast size, but the inner rows rested on piers; the ornamentation of these piers on the surface was very great..." Eusebius, "Vita", III,37, p. 8.
- 47 Williams, op. cit., p. 173.
- 48 Ibid., p. 204.

CHAPTER III FOOTNOTES

1. André Grabar suggests that Eusebius failed to mention the Anastasis because he did not think it was of any importance, but if it had existed, Eusebius is not likely to have overlooked it. André Grabar, Martyrium, Recherches sur le cult des reliques et l'art chrétien antique, (Limoges: Collège de France, 1946), p. 264.
2. Kenneth Conant, "The Original Buildings at the Holy Sepulchre in Jerusalem", Speculum, Vol. XXXI (October, 1956), p. 45 f. R. Krautheimer suggests that the Anastasis was in service by 350. Richard Krautheimer, Early Christian and Byzantine Architecture, (London: Penguin Books, 1965), p. 50 n. 11. Grabar states that "We shall probably never know for certain whether the rotunda enclosing the Holy Sepulchre was built under Constantine or a little after....However that may be, the rotunda of the Holy Sepulchre undoubtedly dates to the fourth century." Grabar, op. cit., p. 163.
3. Conant, op. cit., p. 45.
4. Eusebius, "Life of Constantine" (Vita Constantini), trans. John H. Bernard, in The Churches of Constantine: Being Translations from Eusebius and the Early Pilgrims, (London: Palestine Pilgrims' Text Society, 1898), III, 34, 35, p. 7. Subsequently referred to as Eusebius, "Vita", III, 34, 35, p. 7.
5. Conant, op. cit., p. 46; Hugues Vincent and F-M Abel, "Jérusalem Nouvelle;" Jérusalem. Recherches de topographie, d'archéologie et d'histoire, (Vol. I, II; Paris: J. Gabalda, 1914), II, ii, p. 210.
6. Bernard, op. cit., p. x; G. Jeffery, "Papers on the Church of the Holy Sepulchre", Journal of the Royal Institute of British Architects, Vol. XVIII (October, 1910), p. 827. Conant dates Aetheria's text to 392-5 but others generally date it about ten years earlier. Conant, op. cit., p. 45.
7. André Grabar, Early Christian Art: From the Rise of Christianity to the Death of Theodosius, 200-395, trans. Stuart Gilbert and James Emmons, (New York: Odyssey Press, 1968), p. 291 citing "The Pilgrimage of S. Silvia of Aquitania to the Holy Places", (The Library of the Palestine Pilgrims' Text Society, trans. J. H. Bernard, [Vol. I; London, 1897], pp. 13-14, 47-48, 63-64, 76-77).
8. "The 'Breviary', or Short Description of Jerusalem," Bernard, op. cit., p. 24; Vincent, op. cit., p. 216.
9. "Arculf, Concerning The Holy Places", ibid., p. 29. A more complete text, in Latin, is given by Vincent, op. cit., p. 233-4.



Chapter III Footnotes (continued)

- 10 The Roman sarcophagus. Neil C. Brooks, "The Sepulchre of Christ in Art and Liturgy with Special Reference to the Liturgical Drama", University of Illinois Studies in Language and Literature, Vol. VII, 2 (May, 1921), p. 18; E. Baldwin Smith, The Dome: A Study in the History of Ideas, (Princeton: Princeton University Press, 1956), p. 23.
- 11 The sarcophagus of S. Celso, Milan. Brooks, loc. cit.; D. V. Ainalov, The Hellenistic Origins of Byzantine Art, trans. Elizabeth and Serge Sobolevitch, ed. Cyril Mango, (New Brunswick, N.J.: Rutgers University Press, 1961), p. 143.
12. The sarcophagus of Southern Gaul. Brooks, loc. cit.; Vincent, op. cit., p. 185.
- 13 The Basilewsky situla. John Beckwith, The Basilewsky Situla, (London: Victoria and Albert Museum, 1963).
- 14 Conant, op. cit., p. 6.
- 15 The date of S. Pudenziana, as given by Walter Lowrie, is ca. 384. Walter Lowrie, Art in the Early Church, 2nd ed., rev., (New York: Harper and Row, 1965), p. 126. The mosaics have been dated to sometime after 400. F. van der Meer and Christine Mohrmann, Atlas of the Early Christian World, trans. Mary F. Hedlund and H. H. Rowley, (Toronto: Thomas Nelson and Sons, 1959), p. 157 n. 525.
- 16 Madaba Mosaic. Conant, op. cit., p. 7-8. Reliquary, Sancta Sanctorum, Lateran. See note 13 chapter I.
- 17 Richard Krautheimer, "Introduction to an 'Iconography of Mediaeval Architecture'", Warburg and Courtauld Institute Journal, Vol. V (1942), p. 5 n. 2.
- 18 Eutychius, "Eutychii Annals," Extracts from Aristeeas, Hecataeus, Origen and other Early Writers, trans. Aubrey Stewart, (London: Palestine Pilgrims' Text Society, 1895), p. 35-68.
- 19 G. T. Rivoira, Lombardic Architecture: Its Origin, Development and Derivatives, trans. G. McN. Rushford, (Vol. I, II; Oxford: Clarendon Press, 1933), I, p. 14.
- 20 W. Harvey, "Inspection of the Church of the Holy Sepulchre from 23rd to 29th (of) March 1938", and "The Structural Decay of the Church of the Holy Sepulchre", Palestine Exploration Quarterly, (January, 1938), pp. 160-1, 156-60; Rev. R. Willis, "Note B, on the Conflagration of the Church of

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the Holy Sepulchre in 1808", George Williams, The Holy City: Historical, Topographical and Antiquarian Notices of Jerusalem, (Vol. I,II, 2nd ed.; London: John W. Parker, 1849), II, p. 282-9.

- 21 See note 9 chapter III.
- 22 It has been suggested by Vincent (op. cit., p. 235), Grabar (Martyrium, p. 258), and Conant (op. cit., p. 48) that the outer circle of Arculf's plan could represent the gallery above the aisles. R. Krautheimer, through a study of the 9th century document the "Commemoratorium de Casis Dei", was able to establish the outside diameter of the Anastasis (Fig. 31e). Richard Krautheimer, "Santo Stefano Rotondo a Roma e La Chiesa del Santo Sepolcro a Gerusalemme", Revista di Archeologia Cristiana, Vol. XII (1935), p. 90-2. Carol Heitz supports the theory of the outer ambulatory presented by Krautheimer. Carol Heitz, Recherches sur les rapports entre architecture et liturgie à l'époque carolingienne, (Paris: S.E.V.P.E.N., 1963), p. 116. The larger Rotunda with an outer ambulatory around the central core was not illustrated prior to the eighth or ninth century.
- 23 J. T. Milik, "Jerusalem, Mount des Oliviers", Revue Biblique, Vol. LXVII (1960), pp. 249 f, 557 f; Krautheimer, Early Christian..., p. 51 n. 12.
- 24 Vincent, op. cit., p. 360-419; Grabar, Martyrium, p. 282-9; Smith, op. cit., p. 102. The "basilique de l'Ascension" described by S. Paulin of Nola (ca. 400) was not the Imbomon. Grabar, Martyrium, p. 286.
- 25 "Le mur octagonal croise a plus de 4 m. de largeur, mais la rotonde byzantine, épaisse seulement de 1,56 m. était appuyée par des contreforts dont deux ont été trouves dans la fouille." Milik, op. cit., p. 249-50. The "diameter of roughly 18 m. (60 ft)" claimed by Krautheimer should read "radius of 18 m. (60 ft.)." (Krautheimer, Early Christian..., p. 51). The diameter of the octagonal building is 41,10 m. according to Vincent (op. cit., fig. 155).
- 26 Krautheimer, Revista..., p. 91. The 20,80 m. span of the roof cited by Smith (op. cit., p. 102) is based on the octagonal, not the circular, plan.
- 27 Vincent, op. cit., p. 413.
- 28 Ibid., p. 235.
- 29 Krautheimer, Early Christian..., p. 50; Vincent, op. cit., p. 384; Smith, loc. cit.

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- 30 Vincent, op. cit., p. 371-2.
- 31 Smith, op. cit., p. 8.
- 32 Ibid., p. 57.
- 33 Ibid.
- 34 Ibid., p. 58.
- 35 Ibid., p. 57.
- 36 Ibid., p. 14-5; K. A. C. Creswell, Early Muslim Architecture, (Vol. I,II; Oxford: Clarendon Press, 1932), pp. 71, 84; G. T. Rivoira, Moslem Architecture: Its Origins and Development, trans. G. McN. Rushford, (London, New York, etc.: H. Milford, Oxford University Press, 1918), p. 127.
- 37 Smith, op. cit., p. 99.
- 38 Ibid., p. 100.
- 39 Grabar, Martyrium, p. 312; Krautheimer, Early Christian..., p. 99; Carl Watzinger, Denkmäler Palästinas eine Einführung in die Archäologie des Heiligen Landes, (Vol. I,II; Leipzig: J. C. Hinrichs, 1933-5), II, p. 134-5; Smith, op. cit., p. 99.
- 40 Ibid., noting F-M Abel, "Les églises de Palestine récemment découvertes," Atti del III Congresso internazionale di archeologia cristiana, (1934), p. 504.
- 41 Watzinger, op. cit., p. 135.
- 42 The measurements for the Anastasis are taken from Krautheimer's plan in Revista..., p. 86, reproduced as Fig. 31e.
- 43 Smith, loc. cit.; Krautheimer, Early Christian..., p. 194; Howard Crosby Butler, Syria. Publications of the Princeton University Archaeological Expedition to Syria in 1904-5 and 1909, ed. Edward Royal Stoeber, (Leiden: E. J. Brill Ltd., 1930), p. 164 ff.
- 44 Smith, loc. cit.
- 45 Krautheimer, Early Christian..., p. 51; Krautheimer, 'Iconography', p. 14; Grabar, Martyrium, p. 146.
- 46 Krautheimer, Early Christian..., p. 51
- 47 K. A. C. Creswell, A Short Account of Early Muslim Architecture, (Harmondsworth Middlesex: Penguin Books Ltd., 1958),

Chapter III Footnotes (continued)

- p. 34. There is no evidence to support Creswell's claim that Constantine built the Anastasis.
- 48 Krautheimer and Grabar both associate the plans of S. Costanza and the Anastasis. Krautheimer, 'Iconography', p. 26; Grabar, Early Christian Art, p. 165.
- 49 Creswell, A Short Account..., p. 34-5.
- 50 G. T. Rivoira, Roman Architecture and its Principles of Construction under the Empire, trans. G. McN. Rushford, (Oxford: Clarendon Press, 1925), pp. 250, 253; Oskar Wulff, Altchristliche und Byzantinische Kunst (Handbuch der Kunstwissenschaft), (Berlin: Akademische Verlagsgesellschaft, Athenaion, 1918), p. 247; Krautheimer, Early Christian..., p. 147; A. Khatchatrian, Les baptistères paléochrétiens; plans, notices et bibliographie, (Paris: Centre national de la recherche scientifique, 1962), p. 114. The date of S. Maria Maggiore in the province of Salerno is uncertain. Rivoira dates it as late 4th or early 5th century (Roman Architecture, p. 250). Wulff claims it was a 4th century baptistry (op. cit., p. 247) and Krautheimer suggests that it was 6th century (Early Christian..., p. 147 referring to Nocera Inferiore), or 5th century ('Iconography', p. 24). The number of double columns in the building varies from 14 to 16, depending on the author:- 14 columns, Krautheimer, 'Iconography', loc. cit.; 15 columns, Krautheimer, Early Christian..., loc. cit.; 16 columns, Wulff, loc. cit. Eight columns were placed on the rim of the font. The internal diameter was 24 m. with an ovoidal dome 15 m. high. Entrances were located to the east and west.
- 51 The Church of S. Severina in Calabria had four rectangular branches projecting from the ambulatory "recalling S. Angelo in Perugia" and "S. Stefano Rotondo", according to Krautheimer (Early Christian..., loc. cit.). Khatchatrian, op. cit., p. 126.
- 52 Tipasa. Carl Maria Kaufmann, Handbuch der Christlichen Archäologie, (Paderborn: Druck und Verlag von Ferdinand Schöningh, 1913), p. 160, Fig. 37; Khatchatrian, op. cit., p. 136, Fig. 261, 269. Djemila. Ibid., p. 83; Grabar, Martyrium, p. 128; Van der Meer, op. cit., pp. 128 n. 407, 131 n. 420.
- 53 Khatchatrian, op. cit., p. 73.
- 54 Smith, op. cit., p. 58.
- 55 S. Germain-l'Auxerrois. André Michel, Histoire de l'art depuis les premiers temps chrétiens jusqu'à nos jours, Vol I, II; Paris: Librairie Armand Colin, 1905), I, p. 104. Aljezares in Murcie, Spain. Khatchatrian, op. cit., p. 63.

Chapter III Footnotes (continued)

- Mausoleum at Centelles, Spain. Grabar, Early Christian Art, pp. 168, 192.
- 56 Richard Krautheimer, "The Architecture of Sextus III: A Fifth Century Renaissance", Essays in Honour of Erwin Panofsky, ed. Millard Meiss, (New York: New York University Press, 1961), p. 295; Krautheimer, Revista..., p. 51-102.
- 57 Emile Mâle, The Early Churches of Rome, trans. David Buxton, (London: Ernest Beun Limited, 1960), p. 69; Emerson H. Swift, Roman Sources of Christian Art, (New York: Columbia University Press, 1951), p. 44.
- 58 Kaufmann (op. cit., p. 221), Dehio and Dalton (O.M. Dalton, Byzantine Art and Archeology, [New York: Dover Publications Inc., 1961], p. 95) all consider S. Stefano Rotondo in Rome to be a copy of the Church of S. Stefano in Jerusalem, but, according to Vincent (op. cit., p. 743 f) and Krautheimer (Revista..., p. 100), the Church of S. Stefano in Jerusalem was a basilica, not a rotunda.
- 59 Ibid., p. 91; Krautheimer, 'Iconography', p. 12 n. 7 citing "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).
- 60 Krautheimer, Revista..., p. 97.
- 61 Krautheimer, 'Iconography', p. 5
- 62 Spiro K. Kostof, The Orthodox Baptistry of Ravenna, (New Haven and London: Yale University Press, 1965), p. 49 f; Paul A. Underwood, "The Fountain of Life in Manuscripts of the Gospel", Dumbarton Oaks Papers, No. 5. (Cambridge: Harvard University Press, 1950), p. 81.
- 63 Kostof, loc. cit. The baptistry of S. Tecla, Milan, is dated 378-86 A.D.
- 64 Underwood, loc. cit.
- 65 Watzinger, op. cit., p. 131; Smith, op. cit., p. 102; Khatchatrian, op. cit., p. 134.
- 66 Grabar, Martyrium, p. 326.
- 67 Creswell, Early Muslim..., p. 48.
- 68 Felix Kreusch, "Das Mass des Engles", Vom Bauen, Bilden und Bewahren Festschrift für Willy Weyres, ed. Joseph Hoster and Albrecht Mann, (Koln: Greven Verlag, 1963), p. 61 f.

Chapter III Footnotes (continued)

- 69 Ibid., p. 65. Measurements such as the ell or the greek or roman foot were not always uniform in length from country to country or building to building.
- 70 Ibid., p. 64-5.
- 71 Krautheimer, Early Christian..., p. 52; Glanville Downey, A History of Antioch in Syria from Seleucius to the Arab Conquest, (Princeton: Princeton University Press, 1961), p. 342; Smith, op. cit., p. 29-30; J. Strzygowski, Origin of Christian Church Art, trans. O.M. Dalton and H.J. Braunholtz, (Oxford: Clarendon Press, 1923), p. 66; Wayne Dynes, "The First Christian Palace-Church Type", Marsyas, Vol. XI (1962-4), p. 1; J. W. Crowfoot, Early Churches in Palestine, (London: Oxford University Press, 1941), p. 20; Grabar, Martyrium, p. 221; Charles Rufus Morey, Medieval Art, (New York: W. W. Norton and Company Inc., 1942), p. 83.
- 72 Downey, op. cit., p. 345; Dynes, loc. cit.
- 73 Krautheimer, Early Christian..., p. 51
- 74 Crowfoot, op. cit., p. 37; Smith, op. cit., p. 103; Watzinger, op. cit., p. 136; Khatchatrian, op. cit., p. 89; Grabar, Martyrium, p. 312.
- 75 See note 71 above.
- 76 A brief resume of the discussion of whether a dome existed or not is given by Smith (op. cit., p. 35).
- 77 The Church of S. Simeon Stylites was probably constructed in 460-490 A.D. Smith, op. cit., p. 34; Johannes Heinrich Emminghaus, "Das Taufhaus von Kal'at Sim'an in Zentralsyrien Baubeschreibung und -interpretation", Tortulae: Studien zu Altchristlichen und Byzantinischen Monumenten, (Rom, Freiberg, Wien: Herder, 1966), p. 94; Georges Tchalenko, Villages Antiques de la Syrie du Nord; le massif du Bélus à l'époque romaine, (Vol. I,II; Paris Institute français d'archéologie de Beyrouth, Librairie Orientaliste, Paul Geuthner, 1953), I, p. 231.
- 78 Dynes, op. cit., p. 1 f; David Talbot Rice, The Art of Byzantium, (London: Thames and Hudson, 1959), p. 298; Jean Ebersolt, Monuments d'architecture byzantine, (Paris: Les Editions d'art et d'histoire, 1934), p. 21.
- 79 Krautheimer, Early Christian..., p. 167.
- 80 The Chrysotriklinos, Constantinopae. Ibid., p. 167-8. S. Vitale, Ravenna. Ibid., p. 169-70; Van der Meer, op. cit.,

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- p. 94 n. 258-61. The Church of S. Vitale was apparently commissioned by Bishops Ecclesius (521-32) and Victor (538-45) and was completed in 546-8. Foundations may have been laid at the time of the Ostrogothic King, Theodoric (493-529), but it is not known if he helped finance the venture. He may have been preoccupied by the construction of his tomb or the palatine church, S. Apollinare Nuovo (ca. 500-29). The octagonal double-shell plan of S. Vitale has a number of features in common with the church of SS. Sergius and Bacchus, however, Krautheimer terms it a "very independent variant". Ibid., p. 169.
- 81 Smith, op. cit., p. 105; Emminghaus, op. cit., p. 92.
- 82 Butler, op. cit., pp. 151, 205; Smith, loc. cit.; Emminghaus, loc. cit.
- 83 Smith, loc. cit.
- 84 Butler, op. cit., p. 122; Khatchatrian, op. cit., p. 88; Smith, op. cit., p. 49; Ebersolt, op. cit., p. 22-3; Crowfoot, op. cit., p. 94; Rivoira, Moslem Architecture..., p. 68.
- 85 J. W. Crowfoot, "The Cathedral of Bosra, A Preliminary Report", Palestine Exploration Quarterly, (January, 1936), p. 8 f; Crowfoot, Early Churches..., p. 94-5; Butler, op. cit., p. 127; Smith, op. cit., p. 48.
- 86 Crowfoot, P.E.Q., p. 8.
- 87 S. John the Baptist, Gerasa. Smith, op. cit., p. 107; Khatchatrian, op. cit., p. 90; Crowfoot, Early Churches..., p. 94 f; Watzinger, op. cit., p. 136.
- 88 The following notes are taken from Creswell's Early Muslim Architecture, p. 70; De Vogüé, (Le Temple de Jérusalem, 1864, p. 82), 'La disposition de l'édifice (Dome of the Rock), prise dans son ensemble, est toute byzantine.' Adler (Der Felsendom und die heilige Grabeskirche zu Jerusalem, 1873, p. 22) considers the Dome to be based on the plan of the Anastasis. Dehio and von Bezold (Die kirchliche Baukunst des Abendlandes, Text I, p. 35-9) supports the Adler theory.
- 89 Creswell, Early Muslim..., p. 97.
- 90 Repairs and restorations to the Dome of the Rock were made in 700, 831, 913, 1016 (new dome), between 1318 and 1319, 1448, between 1510 and 1566, 1776, between 1808 and 1839. Rivoira, Moslem Architecture..., p. 46 f.
- 91 Creswell, Early Muslim..., p. 43 quoting from Ya'qubi, "History" (260 H., 874 A.D.), II, p. 311 as translated by G. Le Strange in Palestine Exploration Quarterly, (1887),

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- p. 93, and in Palestine Under the Moslems, p. 116, by the same author.
- 92 Creswell, Early Muslim..., p. 25.
- 93 Michel Join-Lambert, Jerusalem, trans. Charlotte Haldane, (London: Elek Books, 1958), p. 165.
- 94 Creswell, A Short Account....., p. 18.
- 95 The diameter of the domes are also similar. Creswell, A Short Account..., p. 35.
- 96 "The dome of Santa Costanza rests on an inner ring of supports consisting of twelve pairs of columns arranged in a circle; a cruciform effect is produced by making the arches facing the cardinal points wider than the rest. This same effect is produced in the Holy Sepulchre, which has an inner ring of supports consisting of twelve columns and eight piers so arranged that a pair of piers comes between every three columns." This quotation is taken from Creswell, A Short Account of Early Muslim Architecture, p. 34-5. According to this description, S. Costanza and the Holy Sepulchre share the cross plan of the columns in the inner ring with the pattern of supports in the Dome of the Rock.
- 97 Creswell, A Short account..., p. 36.
- 98 Gregory of Nyssa described an octagonal church in a letter dated 379-94. Octagons also existed at Alexandria (S. John the Baptist) and at Tyre (The Theodokos). Smith, op. cit., p. 31; Kaufman, op. cit., p. 218; Dalton, Early Christian Art, p. 98.
- 99 H. T. F. Duckworth, The Church of the Holy Sepulchre, (London: Hodder and Stoughton, 1927), p. 204.
- 100 Join-Lambert, op. cit., p. 210.
- 101 Rivoira, Moslem Architecture, p. 47.
- 102 Krautheimer, 'Iconography', p. 4 quoting from "Vita Meinwerci episc. Patherbrunensis", cap. 209 ff (second half of 12th C.), Lehmann-Brockhaus, Schriftquellen für Kunstgeschichte des 11 und 12 Jahrhunderts, (Berlin: 1938), nos. 1046-1050.



CHAPTER IV FOOTNOTES

- 1 Carol Heitz, Recherches sur les rapports entre architecture et liturgie à l'époque carolingienne, (Paris: S.E.V.P.E.N., 1963), p. 144 f.
- 2 Richard Krautheimer, "Introduction to an 'Iconography of Mediaeval Architecture,'" Warburg and Courtauld Institute Journal, Vol. V (1942), p. 18-19. References to S. Stefano Bologna as "Jerusalem" were made in 887, 973 and 1017.
- 3 Heitz, op. cit., p. 21 f.
- 4 Ibid., p. 21-42.
- 5 Richard Krautheimer, Early Christian and Byzantine Architecture, (London: Penguin Books, 1965), p. 120; Heitz, op. cit., p. 90.
- 6 Krautheimer, Early Christian..., p. 142.
- 7 Ibid., p. 90.
- 8 Heitz, loc. Cit.
- 9 H. Leclercq, "Tipasa", Dictionnaire d'archéologie chrétienne et de liturgie, ed. F. Cabrol and H. Leclercq, Vol. XV (1907-1937), col. 2348 f.
- 10 Ibid., col. 2366 f.
- 11 H. Leclercq, "Timgad", Ibid., col. 2327-2330.
- 12 Krautheimer, Early Christian..., p. 144.
- 13 Ibid.
- 14 Ibid., p. 135-6; Heitz, op. cit., p. 90.
- 15 Ibid., p. 91 f.
- 16 Ibid., p. 110.
- 17 Ibid., p. 101.
- 18 Ibid., p. 96-7.
- 19 E. Baldwin Smith, The Dome: A Study in the History of Ideas, (Princeton: Princeton University Press, 1950), pp. 142-3, 143 n. 39 citing C. Ricci, "L'Antico duomo di Ravenna", (Felix Ravenna, Vol. XXXVII 1931, p. 14 taken from G. F. Buonamici, La Metropolitana di Ravenna, 1748), and ibid.,

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- p. 143 n. 30 (C. Ricci, Guido di Ravenna, [1923] p. 37-41; G. Berti, Sull'antico Duomo di Ravenna, [1880], p. 15; G. Rossi, "Chiesa del Duomo," Felix Ravenna, Vol. XXXVIII [1931], p. 29 ff).
- 20 Ibid., p. 139-40. The raised platforms in the centre of the nave of the basilica churches mentioned by Smith were rectangular with a semicircular apse to the east and an entrance to the west. They were apparently enclosed and possibly housed the relics of a saint during services held on the day dedicated to him.
- 21 Ibid., p. 132.
- 22 Ibid., pp. 145 f, 146 n. 47 (I. H. Rahmani, Testamentum Domini Nostri Jesu Christi, 1899); Cabrol, Dictionnaire..., Vol. III, col. 2782; Carl Maria Kaufman, Handbuch der christlichen Archäologie, (Paderborn: Druck und Verlag von Ferdinand Schöningh, 1913), p. 175.
- 23 Ante Sonje, "Il Battistero della Basilica Eufrasiana di Parenzo Problema di Datazione," Acts du XII congres international d'études byzantines, (Vol. III; Belgrad, 1961), p. 371-80; G. T. Rivoira, Lombardic Architecture: Its Origin, Development and Derivations, trans. G. McN. Rushford, (Vol. I, II; Oxford: Clarendon Press, 1933), II, p. 98 f; Oskar Wulff, Altchristliche und Byzantinische Kunst (Handbuch der Kunstwissenschaft), (Vol. I, II; Berlin: Akademische Verlagsgesellschaft Athenaion, 1918), II, p. 394; A. Khatchatryan, Les baptistères paléochrétiens; plans, notices et bibliographie, (Paris: Centre national de la recherche scientifique, 1962), p. 116; Jean Ebersolt, Monuments d'architecture byzantine, (Paris: Les Editions d'art et d'histoire, 1934), p. 110; Krautheimer, Early Christian..., p. 196-8.
- 24 Khatchatryan, op. cit., p. 65-6. The original Cathedral of Aquileia was constructed by Theodore (308-19). The baptistry at that time was located to the north of the vestibule. At the end of the 4th or early 5th century the north church of the double complex was replaced by a larger building. A new baptistry was also constructed and later the south building was replaced. Near the end of the 5th century the southern basilica was extended to the west by a long narthex preceded by an atrium. At that time a baptistry, square on the outside and octagonal on the inside was built on axis with the Cathedral atrium.
- 25 Ibid., p. 71.
- 26 Ibid., p. 137; B. Schultz, Die Kirchenbauten auf der Insel Torcello, (Berlin und Leipzig: Walter de Gruyter, 1927), p. 10 f.

Chapter IV Footnotes (continued)

- 27 The Plan of the 4th century monument of Janicule in Rome dedicated to the pagan syrian god, Baal, was similar to the plan of the Holy Sepulchre. Possibly the churches of Aquelia, Parenzo and Torcello were influenced by this complex if they were not by the Holy Sepulchre. André Grabar, Martyrium, Recherches sur le cult des reliques et l'art chrétien antique, (Limoges: Collège de France, 1946), p. 262-3.
- 28 Krautheimer, Early Christian..., p. 99-101.
- 29 Ibid., pp. 79, 132; Grabar, op. cit., p. 338.

SOURCE OF ILLUSTRATIONS AND MAP

Figure

1. Michel Join-Lambert, Jerusalem, trans. Charlotte Haldane, (London: Elek Books, 1958), Fig. 111.
2. Jules Formigé, "Un plan du Saint-Sépulchre découvert à la basilique de Saint-Denis", Monuments et Memoiries, Vol. XLVIII, 2 (1954), Fig. 31.
3. Bernard Goldman, The Sacred Portal, (Detroit: Wayne State University Press, 1966,) Fig. 40.
4. D. V. Ainalov, The Hellenistic Origins of Byzantine Art, trans. Elizabeth and Serge Sobolevitch, ed. Cyril Mango, (New Brunswick, N.J.: Rutgers University Press, 1961), Fig. 69.
5. Carol Heitz, Recherches sur les rapports entre architecture et liturgie à l'époque carolingienne, (Paris: S.E.V.P.E.N., 1963), Plate XL.
6. Carlo Perogalli, Storia dell'Architettura, (Vol. I,II, Milan: Gorlich editore, 1964), I, p. 235 Fig. 7.
7. G. T. Rivoira, Lombardic Architecture: Its Origin, Development and Derivatives, trans. G. McN. Rushford, (Vol. I; Oxford: Clarendon Press, 1918), Fig. 396.
- 8a. Heitz, op. cit., Plate XXIX A.
- 8b. Ibid., Plate XXIX B.
- 8c. Ibid., Fig. 34.
9. Wilhelm Nyssen, Das Zeugnis des Bildes im Frühen Byzanz, (Bd. II; Breisgau: Lambertus Verlag, 1962), Tafel 2.
10. Ainalov, op. cit., Fig. 39.
11. Ibid., Fig. 117.
12. E. Baldwin Smith, The Dome: A Study in the History of Ideas, (Princeton: Princeton University Press, 1950), Fig. 97.
13. Formigé, op. cit., Fig. 30.
14. Paul A. Underwood, "The Foundation of Life in Manuscripts of the Gospel," Dumbarton Oaks Papers, No. 5 (Cambridge: Harvard University Press, 1950), Fig. 39.

Source of Illustrations and Map (continued)

- 15a. Ibid., Fig. 51.
- 15b. Formigé, op. cit., Fig. 34
- 15c. André Grabar, Christian Iconography: A Study of its Origins, (Princeton University Press, 1968), Fig. 317.
- 15d. Ibid., Fig. 295.
- 15e. Ibid., Fig. 318.
- 16. André Grabar, Early Christian Art: From the Rise of Christianity to the Death of Theodosius, 200-395, trans. Stuart Gilbert and James Emmons, (New York: Odyssey Press, 1968), Fig. 309.
- 17. Grabar, Christian Iconography, Fig. 294.
- 18a. Smith, op. cit., Fig. 19.
- 18b. Ibid., Fig. 109.
- 18c. Ibid., Fig. 17.
- 18d. Ibid., Fig. 18.
- 18e. Ibid., Fig. 20.
- 18f. Ibid., Fig. 24.
- 19a. Goldman, op. cit., Fig. 6.
- 19b. Ibid., Fig. 16a.
- 20. André Grabar, Martyrium, Recherches sur le cult des reliques et l'art chrétien antique, (Limoges: Collège de France, 1946), Fig. 26.
- 21. Smith, op. cit., Fig. 26.
- 22. Jean Ebersolt, Monuments d'architecture byzantine, (Paris: Les Editions d'art et d'histoire, 1934), Fig. 22.
- 23. Smith, op. cit., Fig. 47.
- 24. Ibid., Fig. 81.
- 25. Ibid., Fig. 59-61.
- 26. J. Strzygowski, L'ancien art chrétien de Syrie, (Paris: E. de Boccard, 1936), Fig. 86.
- 27. Smith, op. cit., Fig. 86.

Source of Illustrations and Map (continued)

28. Ibid., Fig. 87.
29. Ibid., Fig. 188.
- 30a. K.J. Conant, "The Original Buildings at the Holy Sepulchre in Jerusalem," Speculum, Vol. XXXI (October, 1956), Plate II.
- 30b. James Ferguson, A History of Architecture in all Countries, 3rd ed., (Vol.I; London: John Murray, 1893), Fig. 536.
- 30c. "Jerusalem," Revue Biblique, Vol. LXIX (1962), Plate XI.
- 31a. Conant, op. cit., Plate IV, Plate III,c.
- 31b. Ibid., Plate V, Plate III,d.
- 31c. Hugues Vincent and F-M Abel, "Jérusalem Nouvelle," Jérusalem. Recherches de topographie, d'archéologie et d'histoire, (Vol. I, II; Paris: J. Gabalda, 1914), II,ii, Fig. 119.
- 31d. Richard Krautheimer, Early Christian and Byzantine Architecture, (London: Penguin Books, 1965), Fig. 16.
- 31e. Richard Krautheimer, "Santo Stefano Rotondo a Roma e La Chiesa del Santo Sepolcro a Gerusalemme," Revista di Archeologia Christiana, Vol. XII (1935), Fig. 6.
- 31f. John H. Bernard, The Churches of Constantine at Jerusalem, (London: Palestine Pilgrims' Text Society, 1896), p. xxiv.
- 31g. Ibid.
- 32a. Heitz, op. cit., Plate XXX A.
- 32b. Conant, op. cit., Plate XII, e.
- 32c. Author's reconstruction.
- 33a. Zev Vilnay, The Holy Land in Old Prints and Maps, (Jerusalem,: Rubin Mass, 1963), Fig. 4.
- 33b. Ibid., Fig. 121.
- 33c. Conant, op. cit., Plate XII,b.
34. Ainalov, op. cit., Fig. 67.
- 35a. Vilnay, op. cit., Fig. 10.
- 35b. Ibid., Fig. 8.
- 35c. Ibid., Fig. 7.

Source of Illustrations and Map (continued)

- 35d. Ibid., Fig. 9.
- 35e. Ibid., Fig. 11.
- 36. Richard Krautheimer, "The Constantine Basilica," Dumbarton Oaks Papers, (No.21, Washington: Harvard University Press, 1967), p. 114 Fig. 1.
- 37. Conant, op. cit., Plate VII,c.
- 38a. Grabar, Martyrium, Fig. 27.
- 38b. Krautheimer, Early Christian..., Fig. 15.
- 39. Ibid., Fig. 10.
- 40. Ibid., Fig. 57.
- 41a. Spiro K. Kostof, The Orthodox Baptistry of Ravenna, (New Haven and London: Yale Univeristy Press, 1965), Fig. 12.
- 41b. Rivoira, op.cit., Fig. 3.
- 42a. Smith, op. cit., Fig. 7.
- 42b. Vincent, op. cit., Fig. 113.
- 42c. Ainalov, op. cit., Fig. 68.
- 43. John Beckwith, The Basilewsky Situla, (London: Victoria and Albert Museum, 1963), Fig. 3.
- 44a. Heitz, op. cit., Plate XXX,B.
- 44b. Ibid., Plate XXX,C.
- 45. Grabar, Martyrium, Fig. 25.
- 46a. G.T. Rivoira, Moslem Architecture: Its Origins and Development, trans. G. McN. Rushford, (London, New York, etc.: H. Milford, Oxford University Press, 1918), Fig. 42.
- 46b. Ibid., Fig. 38.
- 46c. Ibid., Fig. 45.
- 46d. Ibid., Fig. 46.
- 47. Smith, op. cit., Fig. 155.
- 48. Ibid., Fig. 48.
- 49. A. Khatchatrian, Les baptistères paléochrétiens, plans, notices et bibliographie, (Paris: Centre national de la recherche scientifique, 1962), Fig. 250.

Source of Illustrations and Map (continued)

- 50. Ibid., Fig. 348.
- 51. W. L. MacDonald, Early Christian and Byzantine Architecture, (New York: George Braziller, 1962), Fig. 14.
- 52a. Khatchatrian, op. cit., Fig. 350.
- 52b. Krautheimer, Early Christian..., Plate 67,B.
- 53a. Ibid., Plate 61, B.
- 53b. Khatchatrian, op. cit., Fig. 259.
- 54. Krautheimer, Revista..., Tav. 1
- 55a. Smith, op. cit., Fig. 29.
- 55b. Ibid., Fig. 26.
- 56. K.A.C. Creswell, Early Muslim Architecture, (Vol.III; Oxford: Clarendon Press, 1932), I, Fig. 30.
- 57. Smith, op. cit., Fig. 160.
- 58. Khatchatrian, op. cit., Fig. 54.
- 59a. Krautheimer, Early Christian..., Fig. 43.
- 59b. Ibid., Fig. 44.
- 60. Ibid., Fig. 63.
- 61. Ibid., Fig. 64.
- 62. Smith, op. cit., Fig. 165.
- 63. Ibid., Fig. 164.
- 64a. Ibid., Fig. 51.
- 64b. Ibid., Fig. 50.
- 65a. Ibid., Fig. 49a.
- 65b. Ibid., Fig. 49b.
- 66a. Ibid., Fig. 169.
- 66b. Ibid., Fig. 167.
- 67a. Ibid., Fig. 38.



Source of Illustrations and Map (continued)

- 67b. Rivoira, Moslem Architecture, Fig. 30.
- 68. Charles A. Cummings, A History of Architecture in Italy, (Vol. I; London: Ernest Benn Ltd., 1928), Fig. 67.
- 69. Heitz, op. cit., Fig. 27.
- 70. Krautheimer, Early Christian..., Plate 61,A.
- 71. Ferdinand Cabrol, Dictionnaire d'archeologie chrétienne et de liturgie, ed. F. Cabrol and H. Leclercq (Vol. XV; Paris: Letouzey et Ané, 1907-37), Fig. 11105.
- 72. Grabar, Early Christian Art, Fig. 191.
- 73. Heitz, op. cit., Fig. 26.
- 74. Smith, op. cit., Fig. 198.
- 75. Ibid., Fig. 182.
- 76a. Ibid., Fig. 216.
- 76b. Ibid., Fig. 217.
- 77. Fergusson, op. cit., Fig. 418.
- 78. Ibid., Fig. 420.
- 79. Krautheimer, Early Christian..., Fig. 38.
  
- Map 1. F. Van der Meer and Christine Mohtmann, Atlas of The Early Christian World, trans. Mary F. Hedlund and H.H. Rowley, (Toronto: Thomas Nelson and Sons, 1959), map 39.

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## APPENDIX

The appendix consists of a number of the buildings discussed in the text followed by a brief bibliography associated with the entry. The order of entries is based on the type of plan, followed by the location of the building and the name of the building.

### A Square Plan

#### Abou-Mina, Libya. S. Menas.

The church of S. Menas was built under Emperor Arcadius and was consecrated between 400-410. It was square on the exterior with an internal octagon and a circular basin in the centre, possibly covered by a baldochino.

A. Khatchatrian, Les baptistères paléochrétiens; plans, notices et bibliographie, (Paris: Centre national de la recherche scientifique, 1962), p. 61, Fig. 60 a, b.

#### Alif (Elif). Tomb.

The tomb at Alif is typical of large open walled heroon according to A. Grabar.

André Grabar, Martyrium, Recherches sur le cult des reliques et l'art chrétien antique, (Limoges: Collège de France, 1946), p. 86.

#### Bosra. The Cathedral of Bosra.

Butler discovered an inscription on the church which reads as follows: "Under the most God beloved and most holy Iulianos, archbishop, was built and completed the holy church of Sergius, Bacchus and Leontios, martyrs, who received the prize and triumphed gloriously. In the year 407, sixth indic-

Square Plan (continued)

ation." Based on this inscription the church had been dated 512/3.

H. C. Butler, Early Churches in Syria, ed. E. Baldwin Smith, (Princeton: Princeton University Press, 1929), p. 127; E. Baldwin Smith, The Dome: A Study in the History of Ideas, (Princeton: Princeton University Press, 1956), p. 117-8; J. W. Crowfoot, Early Churches in Palestine, (London: Oxford University Press, 1941), 94-5.

Edessa, Macedonia. Hagia Sophia.

The original church was begun in 313 and enlarged in 327/8. Sometime before 345/6 it became known as Hagia Sophia. Bishop Amidonius repaired damages to the building caused by a flood in 524 with aid from Justinian. The church was praised in the seventh century in a Syrian hymn - the "Sougitha". Apparently the plan was square like the fourth century martyrium of S. Babylos at Antioch or the original sanctuary of S. John at Ephesus.

Smith, op. cit., p. 91; Grabar, op. cit., p. 327.

Ephesus. S. John.

The ciborium type of square monument placed over the relics of S. John was built in the fourth century, possibly before the Peace of the Church, according to Grabar. The chapel was enlarged in the fifth century with an addition of four arms, one per side. In the sixth century Justinian built a new church on the site.

Grabar, op. cit., p. 66; Smith, op. cit., p. 55.

Hass. Tomb.

Smith does not give a date for the tomb at Hass. It was a two story tomb modeled after a classic temple.

Smith, op. cit., p. 59.

Square Plan (continued)

il Anderin. Church No. 3.

This small church with an inscribed cross plan in a square was built of brick like the church of Kasr Ibn Wardan (561-4) which Butler restored. Smith dates Church No. 3 as 558/9 A.D.

Smith, op. cit., p. 46.

Jerusalem. Tomb of Absalom.

De Vogüé believed this tomb belonged to the second century B.C. but others date it to the first half century of the Christian era. The tomb consisted of a square base with attached columns and pilasters, a plain attic and above, a drum and funnel dome.

G. T. Rivoira, Lombardic Architecture: Its Origin, Development and Derivatives, trans. G. McN. Rushford, (Vol. I,II, Oxford: Clarendon Press, 1933), I, p. 24.

Kharga, Egypt. Tomb.

The tomb at Kharga together with other square and rectangular tombs in Egypt at Bawit and Bagawat date to the fourth and fifth centuries.

Nola, Algeria. S. Felix.

The martyrium of S. Felix occupies the same place as an atrium before a church, and had a ciborium similar to that at S. John, Ephesus. The sanctuary dates to the end of the fourth century.

Grabar, op. cit., p. 59.

Square Plan (continued)

Ruweha. Tomb of Bizzos.

The tomb of Bizzos is still standing and is covered with one of the few masonry domes in Syria. Smith dates it as fifth century - that is one century earlier than the date proposed by Grabar.

Smith, op. cit., p. 50; Grabar, op. cit., p. 84.

Syria. Tomb of Zacharias.

The tomb of Zacharias was a square monument with a pyramidal roof. The date of its construction is not known.

Smith, op. cit., p. 57.

B

Square Plan With Circular Interior

Centcelles, Spain. Mausoleum.

The mausoleum at Centelles near Tarragona, Spain, is believed to be the burial site of Constantine's youngest son Constans I who was murdered in the Pyrenees in 350. It was domed with an octagon inscribed in the interior.

André Grabar, Early Christian Art: From the Rise of Christianity to the Death of Theodosius, 200-395, trans. Stuart Gilbert and James Emmons, (New York: Odyssey Press, 1968), pp. 168, 192.

Ezra (Zorah), North Syria. Church of S. George.

The Church of S. George was square with an octagonal interior. It was completed in 515 and has been restored in modern times. It was constructed of dressed stone except for

Square Plan with Circular Interior (Continued)

the cupola. Butler discovered the following inscription at the site:

"This has become a house of God which (was once) a lodging place for demons....where (once were) idols' sacrifices, now (are) choirs of angels, and where God was provoked to wrath, now God is propitiated. A certain man, Christ loving, the primate Ioannes, son of Diomedes, at his own expense, as a gift to God, made offering of (this) noble structure, placing herein the revered relic of (the) holy martyr Georgios, the gloriously victorious, who appeared to him, Ioannes, and not in sleep, but manifestly, in (indication) 9, year 410 (515 A.D.)."

Butler, op. cit., p. 122; Khatchatrian, op. cit., p. 88; Smith, op. cit., p. 48.

Gerasa, Jordon. S. John the Baptist.

S. John the Baptist was the middle church of three. It was completed in 531. The Church of SS. Cosma and Domianus adjoined it to the north while to the south stood the Church of S. George. The north church was dedicated in 533, the south church, in 529.

Crowfoot, op. cit., p. 94 f; Smith, op. cit., p. 107



C  
Cross Plan

Chelles, France. Ste. Croix.

The Church of Ste. Croix was founded by Bathilda on the royal Merovingian demesne at Chelles.

Margaret Deanesly, A History of Early Medieval Europe from 476 to 911, (London: Methuen and Company, 1963), p. 277.

Constantinople. Church of The Apostles.

According to Eusebius, Constantine erected his tomb in the centre of this church and surrounded it with twelve columns symbolic of the twelve Apostles. Construction probably began in 330 and continued after his death but the building was complete enough to permit the funeral service of Constantine to take place in 337.

R. F. Hoddinott, Early Byzantine Churches in Macedonia and Southern Serbia: A Study of the origins and the Initial Development of East Christian Art, (London: MacMillan and Company Limited, 1963), p. 43; Smith, op. cit., p. 33; Richard Krautheimer, Early Christian and Byzantine Architecture, (London: Penguin Books, 1965), p. 46-7.

Gaza. The Eudoxiana.

The "Eudoxiana" was dedicated to Holy Easter on the day of the Resurrection, April 14, 407. It was built for Empress Eudoxia by Rufinus, an architect from Antioch.

Smith, op. cit., p. 39-40; Glanville Downey, Gaza in the Early Sixth Century, (Norman, Oklahoma: University of Oklahoma Press, 1963), p. 28 f.

Orleans, France. Ste. Croix.

Grabar mentions this building in his discussion of

Cross Plan (continued)

martyria but fails to give a date or details.

Grabar, Martyrium, p. 527.

Poitiers, France. Ste. Croix.

Radegund, the wife of Chlotar I, built this cross church at Poitiers.

"The Rise of the Saracens and the Foundation of the Western Empire", Cambridge Medieval History, (Vol. I, II; Cambridge: Cambridge University Press, 1964), II, p. 147.

Ravenna, Italy. S. Croce.

Only the nave of the Church of S. Croce survives next to the mausoleum of Galla Placidia. The cross church was built by her in ca. 425 and the mausoleum was attached to the narthex some twenty or twenty-five years later.

Krautheimer, op. cit., pp. 58, 137.

Paris, France. Ste. Croix, Sainte-Germain-des Pres.

The Church of Ste. Croix, also dedicated to S. Vincent, was a double martyrium built in 557-9 by Childebert I.

Grabar, Martyrium, p. 160; Cambridge Medieval History, Vol. II, p. 147.

D

Rotunda Plan

Aljezares, Spain. Baptistry.

The baptistry at Aljezares was built between 587 and 802.

Khatchatrian, op. cit., p. 63.

Rotunda Plan (continued)

Antioch, Syria. Church of the Virgin.

The Church of the Virgin at Antioch was built by Justinian (527-65) late in his reign.

Smith, op. cit., p. 99.

Beisan, Palestine. The Theodokos.

The Theodokos at Beisan offers the first solution to the combination of an apse, narthex and rotunda in the same church. Only foundations of this church remain. It was built in the late fifth or early sixth century. The diameter of the rotunda is 38,80 meters.

Grabar, Martyrium, p. 312; Smith, loc. cit.

Carthage, North Africa. Rotunda at Damous-el-Karita.

The rotunda at Damous-el-Karita is dated to the fifth century and stands as part of a complex including a four aisled hall and one of Africa's largest churches.

Khatchatrian, op. cit., p. 73.

Catanzaro in Calabria, Italy. S. Severina.

A small rotunda adjoins the Cathedral of S. Severina. Small arms project from its ambulatory similar to S. Angelo in Perugia and S. Stefano Rotondo.

Krautheimer, op. cit., p. 147.

Constantinople. SS Karpos and Polykarpos.

Only the circular substructure of this domed church survives. It originally was composed of a central room surrounded by an ambulatory. A date of ca. 400 is suggested by

Rotunda Plan (continued)

by the masonry.

Krautheimer, op. cit., p. 14; Grabar, Martyrium,  
p. 146.

Djemila (Cuicul), Algeria, North Africa. Baptistry.

This circular baptistry of the fourth century replaced on older structure some 30 m. away. It has been preserved intact with a four lobed basin in the centre. A wall takes the place of the circular colonnade around the centre room. On the outside of this wall there are twelve niches and across the ambulatory, on the inside of the exterior wall there are twenty-four.

Khatchatrian, op. cit., p. 83.

Fa 'lul, North Syria. S. Michael.

The rotunda of S. Michael at Fa 'lul was built by the "most glorious Diogenes" in 526/7. Butler believed the dome of this church was masonry judging by the debris in the interior. Masonry domes are rare in North Syria. The diameter of the rotunda is 14,95 meters.

Smith, loc. cit.

Gaza, Palestine, Marneon.

The Marneon was constructed in ca. 130 and dedicated to the sky god Marnas. In 402 it was destroyed by fire and was replaced with the cross church built by Eudoxiana in 407.

Smith, op. cit., p. 14.

Rotunda Plan. (continued)

Jerusalem, Mount of Olives, Imbomon (Church of the Ascension).

The Imbomon was built by Poemenia sometime before 378. It was destroyed by the Persians and rebuilt by Modestus. It was originally circular according to recent archeology. The octagonal plan is now considered to be from the Crusades. Milik also believes that a small basilica chapel dedicated to St. Étienne à la Stoa was located to the right of the Imbomon entrance.

J. T. Milik. "Jerusalem, Mount des Oliviers",  
Revue Biblique, Vol. LXVII, (1960), p. 557-8.

Nocera Inferiore, Italy. S. Maria Maggiore.

The baptistry of S. Maria Maggiore is dated by Rivoira as late fourth, early fifth century and by Krautheimer as possibly fifth or sixth century. Wulff claims it was fourth century. The confusion in determining the date is no more confusing than determining the number of double columns in the interior. Krautheimer claims 14 and 15, and Wulff claims 16. The inside diameter is some 24 meters.

Rivoira, op. cit., p. 11; Krautheimer, op. cit., p. 147; R. Krautheimer, "Introduction to an 'Iconography of Mediaeval Architecture'", Warburg and Courtauld Institute Journal, Vol. V, (1942), p. 24. Oskar Wulff, Altchristliche und Byzantinische Kunst (Handbuch der Kunstwissenschaft), (Berlin: Akademische Verlagsgesellschaft Athenaion, 1918), p. 247.

Rome, Italy. Santa Costanza.

The rotunda of S. Costanza was erected by Constantine in 324-6 and was converted to a baptistry in the fifth century. It measures 22,30 meters in diameter with a drum 11,15 meters across.

Rotunda Plan.(continued)

G. T. Rivoira, Roman Architecture and its Principles of Construction under the Empire, trans. G. McN. Rushford, (Oxford: Clarendon Press, 1925), p. 244.

Rome, Italy. S. Stefano Rotondo.

The Church of S. Stefano Rotondo, built by Pope Simplicius I (468-483) reflects a classical spirit but resembles no other building in Rome. It may have been copied after the Church of S. Stefano in Jerusalem built by Empress Eudoxiana. It measures some 208 feet in diameter.

Richard Krautheimer, "Santo Stefano Rotondo a Roma a La Chiesa del Santo Sepolcro a Gerusalemme", Revista di Archeologia Cristiana, Vol. XII, (1935), p. 51 f.

Syria. Stele of 'Amrith

The free standing cylindrical stele of 'Amrith dates from the period of Herod the Great or before. It was two storied with a smaller cylindrical drum under a dome mounted on top of a larger round base.

Smith, op. cit., p. 57.

Tipasa, Algeria, North Africa. Rotunda.

The rotunda at Tipasa, built in the fourth century, was constructed of hewn stone. The central circle of columns, for some unknown reason do not line up with the wall indentations. The entrance open towards the sea.

Carl Maria Kaufmann, Handbuch der christlichen Archäologie, (Paderborn: Druck und Verlag von Ferdinand Schöningh, 1913), p. 160.

E  
Octagon Plan

Antioch, Syria. Domus Aurea.

The Domus aurea was begun in 327 and completed in 341. In 526 it was destroyed by an earthquake and apparently rebuilt to be destroyed later in the same century.

Glanville Downey, A History of Antioch in Syria from Seleucius to the Arab Conquest, (Princeton: Princeton University Press, 1961), p. 342 f; Krautheimer, Early Christian..., p. 52 f.

Basufan, Syria. S. Phokas.

The date of S. Simeon Stylites is determined from the date of S. Phokas because this church was modeled on the large octagon at Kal'at Sem'an. S. Phokas is dated by inscription to 491-5 by Butler but Krautheimer has narrowed the time difference down to 491-2.

H. C. Butler, Syria. Publications of the Princeton University Archaeological Expedition to Syria in 1904-5 and 1909, ed. E. R. Stoeber, (Levden: E.J. Brill Ltd., 1930), 73; Krautheimer, Early Christian..., p. 167-8.

Constantinople. Chrysotriklinos.

The Chrysotriklinos was a great domed octagonal hall built in the royal palace in Constantinople. Krautheimer suggests that it was built in the early 580's but no exact date is known.

Krautheimer, Early Christian..., p. 167-8; O. M. Dalton, East Christian Art: A Survey of Monuments, (Oxford: Oxford University Press, 1925), p. 121.

Constantinople. SS. Sergius and Bacchus.

The Church of SS Sergius and Bacchus was located

## Octagon Plan (continued)

between the palace and the Church of SS Peter and Paul. It was built by Justinian from 527 to 536.

D. T. Rice, The Art of Byzantium, (London: Thames and Hudson, 1959), p. 298; Jean Ebersolt, Monuments d'architecture byzantine, (Paris: Les Editions d'art et d'histoire, 1934), p. 21; Krautheimer, Early Christian..., p. 161 f.

## Garizim, Palestine. The Theodokos.

The Theodokos at Garizim was built by Emperor Zeno in 484-5. It possessed a relic of the Calvary rock.

Crowfoot, op. cit., p. 37; Smith, op. cit., p. 103; Khatchatrian, op. cit., p. 89; Grabar, Martyrium, p. 324.

## Jerusalem. The Dome of the Rock.

The Dome of the Rock was built in 691 by order of 'Abd al-Malik and is the earliest known monument of moslem architecture. It was octagonal with a central room of 20,44 meters in diameter. No one particular building stands as its predecessor, but the Anastasis Rotunda seems to have been an important influence.

K.A.C. Creswell, A Short Account of Early Muslim Architecture, (Harmondsworth, Middlesex: Penguin Books, 1958), p. 17-40.

## Jerusalem, Valley of Joshaphat. Tomb of the Virgin.

The octagonal tomb of the Virgin was one of the earliest octagons to be constructed in the area of Jerusalem after the completion of the Anastasis. The tomb was constructed in the middle of the fifth century.

Smith, loc. cit.



Octagon Plan (continued)

Kal'at Sem'an, Syria. S. Simeon Stylites.

No date of construction is known for S. Simeon Stylites but it was completed prior to the construction of S. Phokas at Basufan dated 491/2. S. Simeon died in 459 but the octagon may have been constructed while he still sat on the pole in the centre.

Downey, A History of Antioch..., p. 480-1; Smith, op. cit., p. 35; Georges Tchalenko, Villages antiques de la Syrie du Nord: le massif Bélus à l'époque romaine, (Vol. I, II; Paris: Institute français d'archéologie de Beyrouth, Librairie Orientaliste, Paul Geuthner, 1953), I, p. 224 f; J. H. Emminghaus, "Das Taufhaus von Kal'at Sim'an in Zentralsyrien Bau-beschreibung und -interpretation", Tortulae: Studien zu Altchristlichen und Byzantinischen Monumenten, (Rom, Freiberg, Wein: Herder, 1966), p. 82-108.

Midjleyya, South Central Syria. Chapel.

Butler dates this semioctagonal chapel to the sixth century. The building is partially conserved.

Smith, op. cit., p. 105; Khatchatrian, op. cit., p. 110.

Milan, Italy. S. Tecla Baptistry.

The octagonal baptistry, the earliest known, was built at the same time as the cathedral or shortly after (ca. 378-86).

Krautheimer, Early Christian..., p. 58; Spiro K. Kostof, The Orthodox Baptistry of Ravenna, (New Haven and London: Yale University Press, 1965), p. 49.

Ravenna, Italy. San Vitale.

The Church of San Vitale was built by Julianus Argentarius at the request of Archbishop Ecclesius (522-32) in 526 and was consecrated in 547. This church, which was very close

Octagon Plan (continued)

to S. Croce, was at one time attached to the palace of Honorius.

Wayne Dynes, "The First Christian Palace-Church Type", Marsyas, Vol. XI, (1962-4), p. 7; Rivoira, Lombardic Architecture, p. 62 f. C

Rome. Lateran Baptistery.

The present building was constructed in 432-40 by Sextus III but the large font, the largest known (28 feet in diameter), may be earlier. In 461-8 an edicula dedicated to the Cross was constructed to contain a piece of the relic of the Cross.

Paul A. Underwood, "The Fountain of Life in Manuscripts of the Gospel", Dumbarton Oaks Papers, (No. 5; Cambridge: Harvard University Press, 1950), p. 45 f; Richard Krautheimer, "The Architecture of Sextus III: A Fifth Century Renaissance," Essays in Honor of Erwin Panofsky, ed. Millard Meiss, (New York: New York University Press, 1961), p. 292; Grabar, Martyrium, p. 164.

Spolato (Split), Dalmatia. Mausoleum of Diocletian.

The octagon at Spolato, originally part of the royal palace, was built in the early fourth century. It is now part of the Cathedral of Spolato but when it was constructed it was part of a great complex measuring 215 m. by 180 m.

Charles Diehl, Manuel d'art byzantine, 2nd ed., (Paris: August Picard, 1925), p. 115-8.

Tell Hum (Capernaum), Palestine. Octagon.

Smith dates the octagon to the middle of the fourth century although it could be earlier according to Khatchatrian. Watzinger claims that it stood in the same relationship to its basilica as the Anastasis did to the Martyrion, while Dalman suggests that it was connected with a palace in the same way

Octagon Plan (continued)

Diocletian's tomb was associated with his palace and the Domus aurea was with the palace at Antioch.

Smith, op. cit., p. 102; Khatchatrian, op. cit.,  
Carl Watzinger, Denkmäler Palästinas: eine Ein-  
führung in die Archäologie des Heiligen Landes,  
(Vol. I, II; Leipzig: J. C. Hinrichs, 1933-5), II,  
p. 131 f; G. Dalman, Palästina-jahrbuch, Vol.  
XVII-XIX, (1922-3), p. 64 f.

F

Basilica Plan

Aquelia, Italy. Cathedral of Aquelia.

The cathedral replaced a "domus ecclesiae" in the early fourth century. The building was completed in 319, possibly as early as 313. There were three buildings on the site including a baptistry, square on the outside and octagonal on the inside with a hexagonal font, from the late fifth century.

Krautheimer, Early Christian..., p. 23; Khatchatrian, op.cit., p. 65-6.

Bethlehem. Church of the Nativity.

The Church of the Nativity was constructed by Constantine and was described by the Bordeaux Pilgrim in 333. In 529 it was damaged by a fire in a Samaritan revolt and Justinian ordered it rebuilt with a trefoil apse replacing the original octagonal structure. The octagon had measured some 18 meters in diameter but may have been too small to accommodate the many pilgrims in the sixth century.

Basilica Plan (continued)

Crowfoot, op. cit., p. 22-7; Smith, op. cit.,  
p. 101; Krautheimer, Early Christian..., p. 38.

Constantinople. Hagia Sophia.

The first Church of Hagia Sophia in Constantinople was finished in 360 and except for the "hemisphairion" would seem to have resembled the Martyrion in Jerusalem.

Krautheimer, Early Christian..., p. 46.

Epidauros, Dalmatia. Church of Epidauros.

The five aisled basilica at Epidauros is dated ca.400 and is accompanied by a basilica plan baptistry on the west end of the north wall.

Krautheimer, Early Christian..., p. 91-2;  
Khatchatrian; op. cit., p. 86.

Jerusalem, Mount of Olives. Eleona.

Eusebius associated this basilica with the Church of the Nativity and the founder S. Helena. The church was destroyed by the Persians and restored by Modestus but today a Medieval chapel, the Pater Noster, occupies the site. The original building was designed to mark the cave in which Jesus was believed to have taught his disciples about the last days. It was also believed that the Last Supper was celebrated here.

Crowfoot, op. cit., p. 32.

Ravenna, Italy. Basilica Ursiana.

The Basilica Ursiana was dedicated to the Anastasis (the Resurrection) in ca. 384. The building seems to have been intended to copy the Holy Sepulchre. It was restored or re-

### Basilica Plan (continued)

constructed in the twelfth century and destroyed in 1748 and apparently rebuilt. The Baptistry of the Orthodox, octagonal with four niches, apparently was circled by an ambulatory and attached to the basilica by an atrium similar to the complex at Aquelia. The design of the baptistry was derived from Milan while the basilica seems to have been influenced by Syrian church plans.

Kostof, op. cit., pp. 47, 124; Khatchatrian, op. cit., p. 120; Rivoira, Lombardic Architecture, I, p. 6-8.

### Resafa, North Syria. S. Sergius.

The first Church of S. Sergius may date from 434 when the city became an episcopal seat with the name Sergiopolis but for stylistic reasons it has been dated by Sarre and Herzfeld, and Spanner and Guyer as ca. 500. A bema was located in the centre of the nave. In the sixth century a martyrium with a quatrefoil plan was built in the same area.

Smith, op. cit., p. 126-9.

### Rome, Italy. S. Croce in Gerusalemme.

A large rectangular hall from ca. 200 was renovated by Helena to serve as a palace chapel or church and to contain a relic of the Cross. Duckworth claims that part of the rock of Calvary was introduced into the foundations by the Empress.

Krautheimer, Early Christian..., p. 27; H. T. F. Duckworth, The Church of the Holy Sepulchre, (London: Hodder and Stoughton, 1927), p. 275.

### Trier. Imperial Basilica

The basilica at Trier was not designed as a church

Basilica Plan (continued)

when it was built between 305 and 312. It was a hall for the palace in that city. It stands as one of the best preserved of Constantine's buildings.

Richard Krautheimer, "The Constantine Basilica", Dumbarton Oaks Papers, (No. 21; (Washington: Harvard University Press, 1967), p. 117.

G

Building Complex

Bologna, Italy. S. Stefano (S. Sepolcro).

The early history of S. Stefano is rather obscure. Foundations seem to have been laid in the fifth century but no mention is made of a circular structure. The association of the complex with Jerusalem was not made until 887 and after, therefore the copy of the Holy Sepulchre complex may not have been designed until later in the eighth or ninth centuries. The rotunda, though rather irregular in plan, was not an octagon, but a circle. In 903 the buildings were damaged or destroyed and in 1150-60 the group was rebuilt. The life of S. Petronio (1162-1180) states clearly that S. Petronio rebuilt the complex to reproduce the Holy Sites in Jerusalem based on measurements he himself made while in the Holy City.

Arthur Kingsley Porter, Lombard Architecture, (Vol. I, II; New Haven: Yale University Press, and London: Oxford University Press, 1917), II, p. 124; Rivoira, Lombardic Architecture, II, p. 648.

Building Complex (continued)

Brescia, North Italy. S. Peter's.

A large rotunda stood at the west end of the church in Brescia. Known as the "old Cathedral", the Duomo Vecchio, it is one of the oldest Lombard circular churches. Its history is not known but the rotunda may have been part of the buildings, or the building built by Queen Theodolind and dedicated in 617 or the rotunda may date from the Carolingian period of the late eighth century. The building lacks architectural decoration and the interior is unadorned. An interior wall divided into twenty-four bays with small single round-arched recesses circles the centre room. The diameter of the inner room is 65 feet. The baptistry stood to the west of the present church, across a street.

Charles Amos Cummings, A History of Architecture in Italy: From the Time of Constantine to the Dawn of the Renaissance, (Vol. I, II; London: Ernest Benn Limited, 1928), I, p. 156-8.

Carthage, North Africa. Damous-el-Karita.

The complex at Damous-el-Karita measured some 490 feet in length. The basilica was 215 feet long with a large semicircular atrium and eight aisles. A large hall and circular building stood behind the church.

Krautheimer, Early Christian..., p. 144.

Chalcedon, Bithynia. S. Eupheme.

The fourth century complex of S. Eupheme was composed of two distinctive structures, the mausoleum and the basilica church.

Grabar, Martyrium, p. 338.

Building Complex (continued)

Corinth, Lechaion, Greece. S. Leonidas.

The dates for the basilica suggested by Krautheimer are 450-60 and 518-27. The very large size of the buildings, 186 meters in length, must have taken a number of years to complete.

Krautheimer, Early Christian..., p. 99-101.

Djemila (Cuicul), Algeria, North Africa.

Prior to 400 a basilica was constructed at Djemila with a new baptistry located in an irregular quadrangle to the west. A larger basilica was built along side in the second decade of the fifth century by Bishop Cresconius.

Krautheimer, Early Christian..., p. 142; Khatchatrian, op. cit., p. 83.

Gerasa, Jordan. Cathedral.

A group of eight churches composed the complex at Gerasa in 611. Except for the central plan church of S. John the Baptist and the cross plan church of the Apostles, Prophets and Martyrs all the churches were basilicas. The cathedral was approached from the rear by a staircase which opened into a courtyard where a shrine to S. Mary was placed next to the apse.

Krautheimer, Early Christian..., p. 120.

Parenzo, Italy. Cathedral of Parenzo.

The Cathedral of Parenzo was built by Bishop Euphrasius from 535 to 543. The basilica was composed of a deep apse and two aisles.

Rivoira, Lombardic Architecture, I, p. 98 f.



Building Complex (continued)

Salona, Dalmatia. Cathedral.

The double cathedral at Salona was composed of the Bishop's basilica to the south (ca. 350) and the north basilica built in 405-26. The south church was replaced in 530.

Krautheimer, Early Christian..., p. 135-6.

Timgad, North Africa. Basilica.

Buildings at Timgad date from the fourth to the sixth century.

Khatchatrian, op. cit., p. 135-6.

Tipasa, Algeria, North Africa. Cathedral.

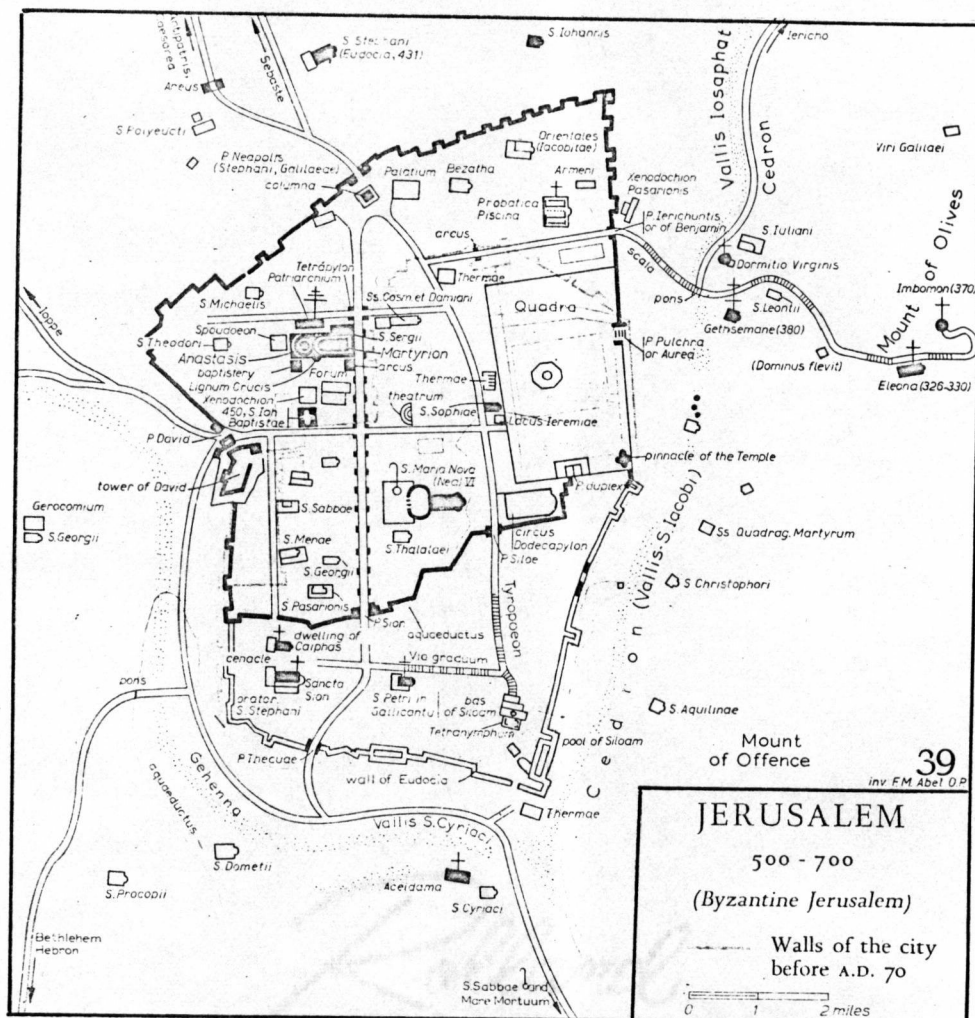
The Cathedral of Tipasa dates to the fifth century. It was a large church, expanded by additions onto the aisles rather than the construction of a new building.

Krautheimer, Early Christian..., p. 140; Khatchatrian, op. cit., p. 136.

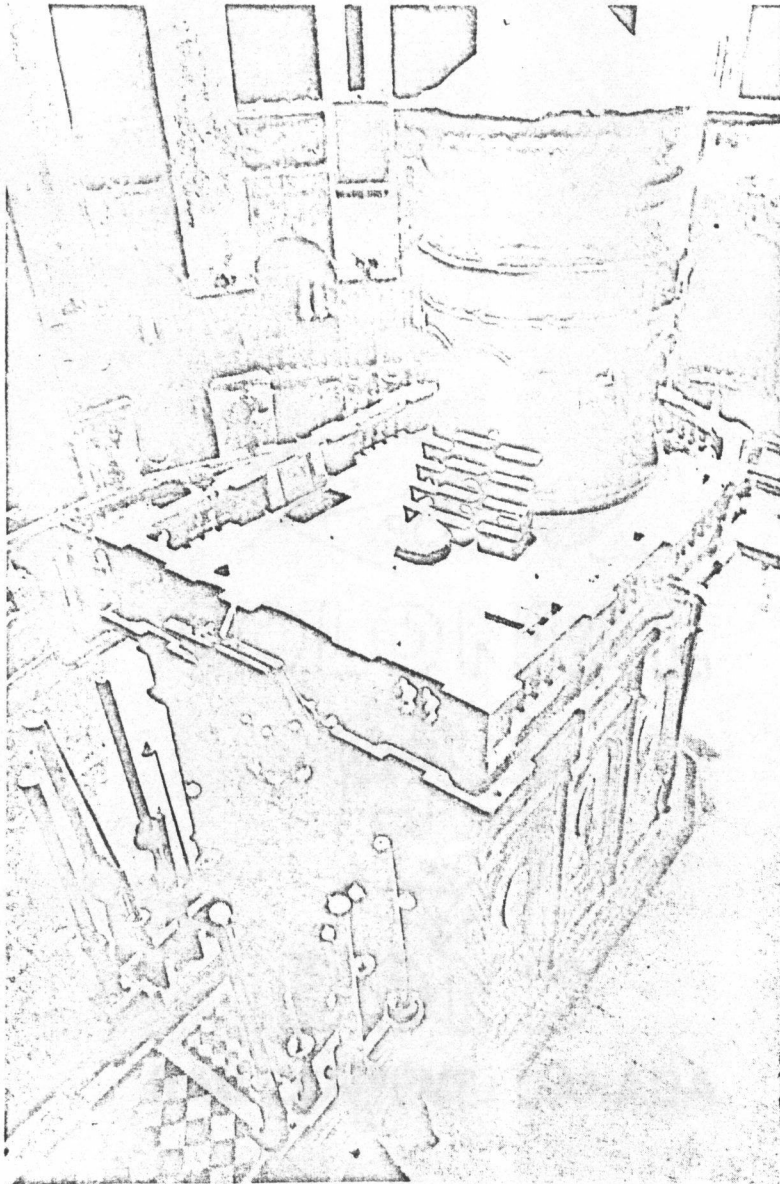
Torcello, Italy. Cathedral of Torcello.

The Cathedral of Torcello was begun in 614. The baptistry, on axis with the church, was round with a door to the east. Two exedra were placed at 45 degrees to each other in the exterior baptistry wall facing the church. The internal diameter of the baptistry was 12,67 meters.

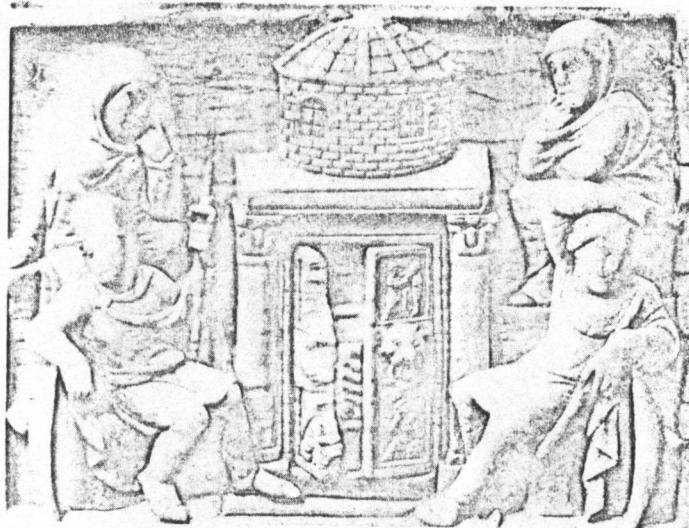
Bruno Schultz, Die Kirchenbauten auf der Insel Torcello, (Berlin und Leipzig: Walter de Gruyter and Company, 1927), p. 10 f.



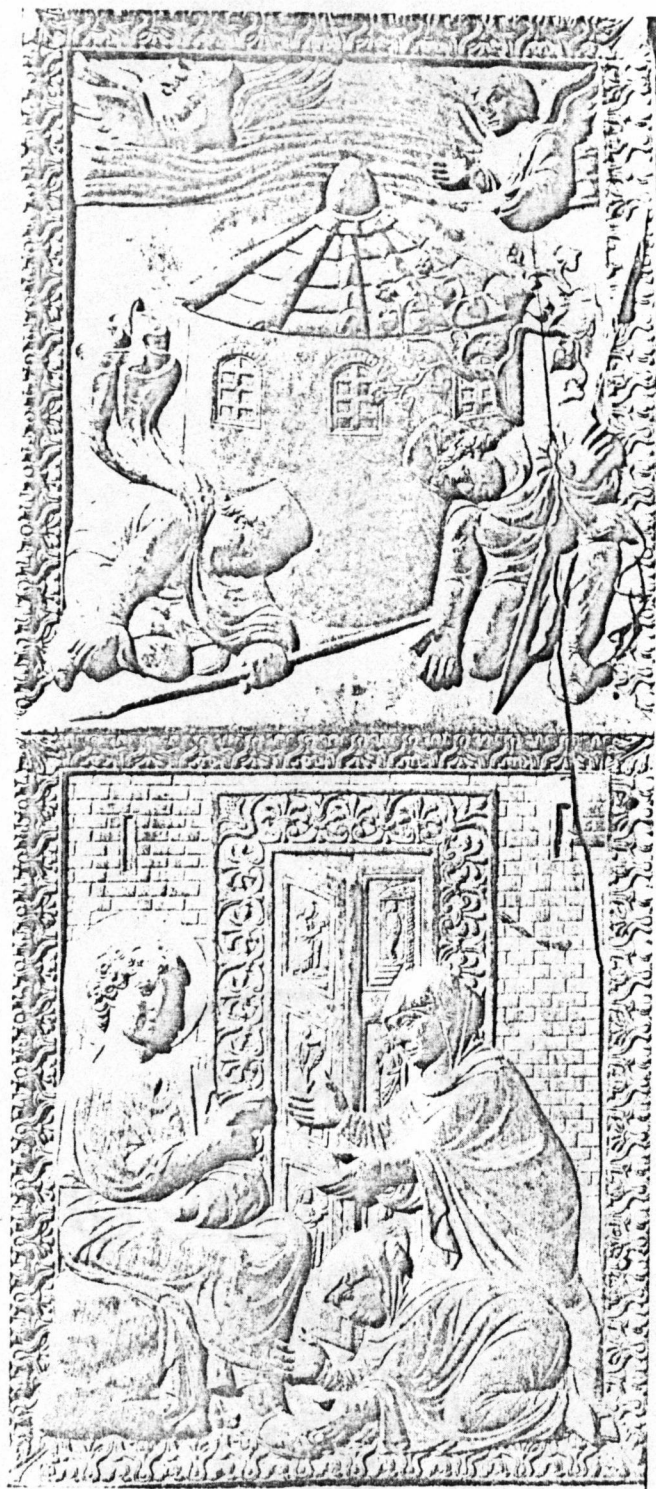
Map 1.



1. Illustration. View of the modern Tegurium.

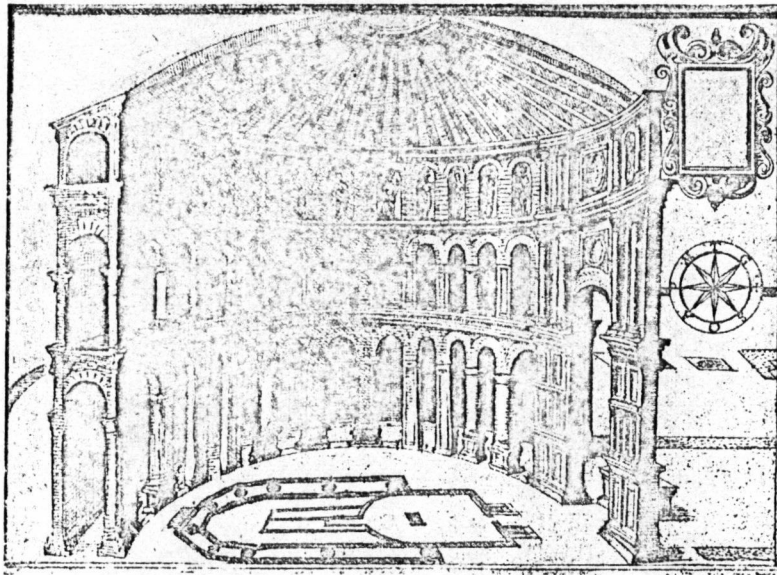


2. Ivory. Buckle of St. Cesarius. Notre Dame-la Major, Arles.
3. Ivory. Casket panel. British Museum, London.



4. Ivory. Trivulzio diptych. Milan.



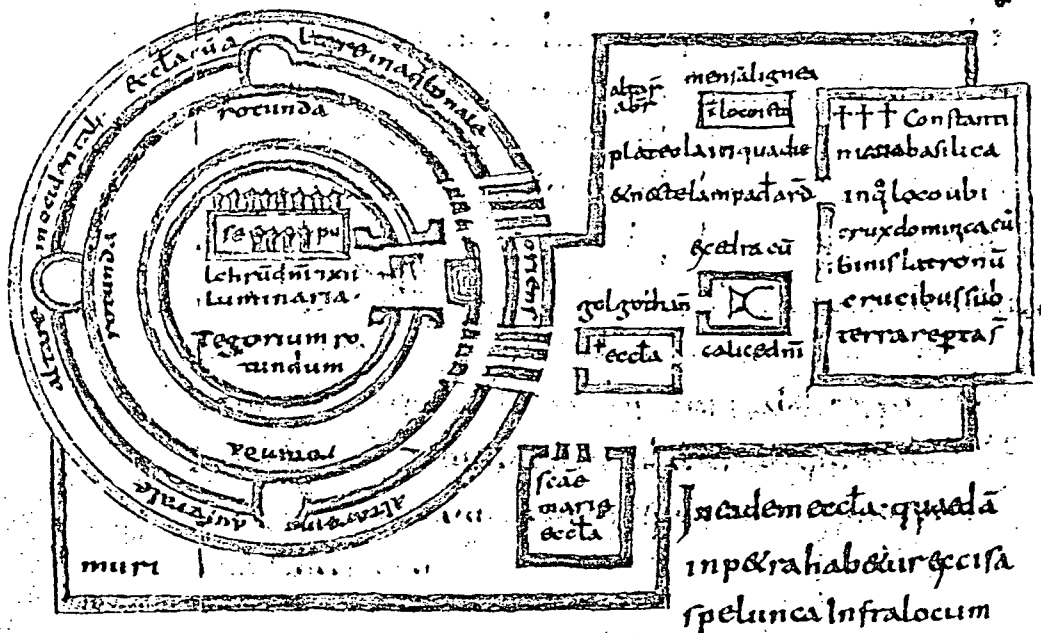


6. Illustration. "La Conocchia", Santa Maria Capus Vetere, Italy.
7. Plan. Tegurium drawn in 1586 from Zuallardo, Il devotissimo viaggio di Gerusalemme, (Roma, 1587), p. 189.

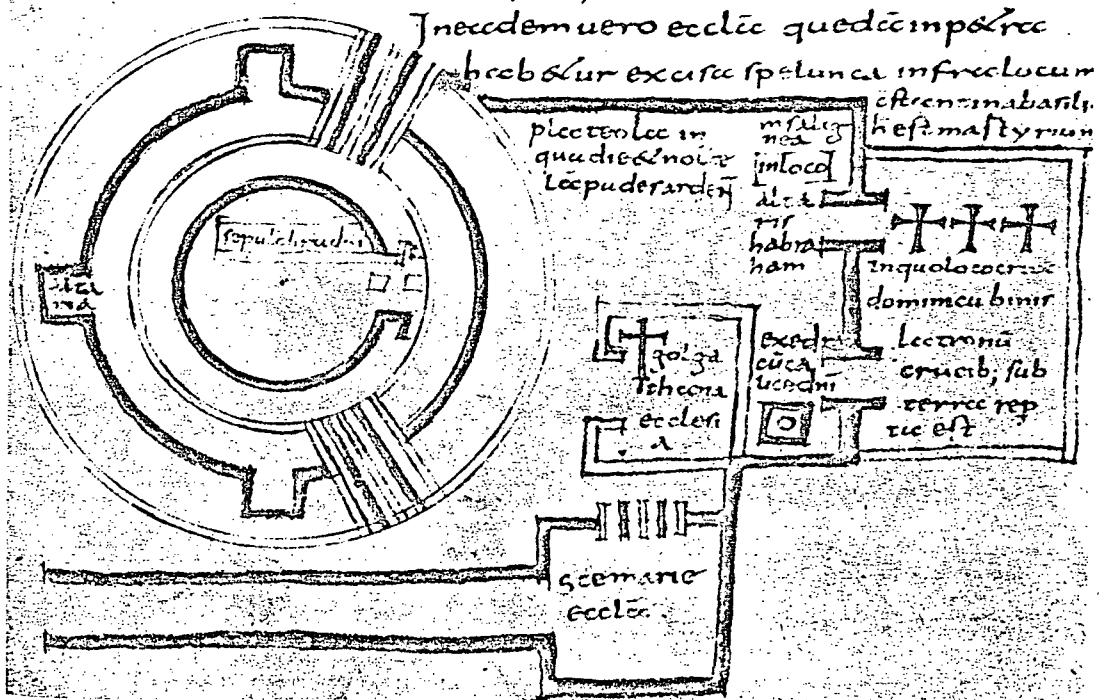


5. Ivory. Panel. National Museum, Munich.

non&trium aliarum figurarū ecclesiarum. De quibus  
inferius intimabitur.



ecclesiarum de quibus inferius intimabitur.



8. Plan. Arculf's plan of the Holy Sepulchre.

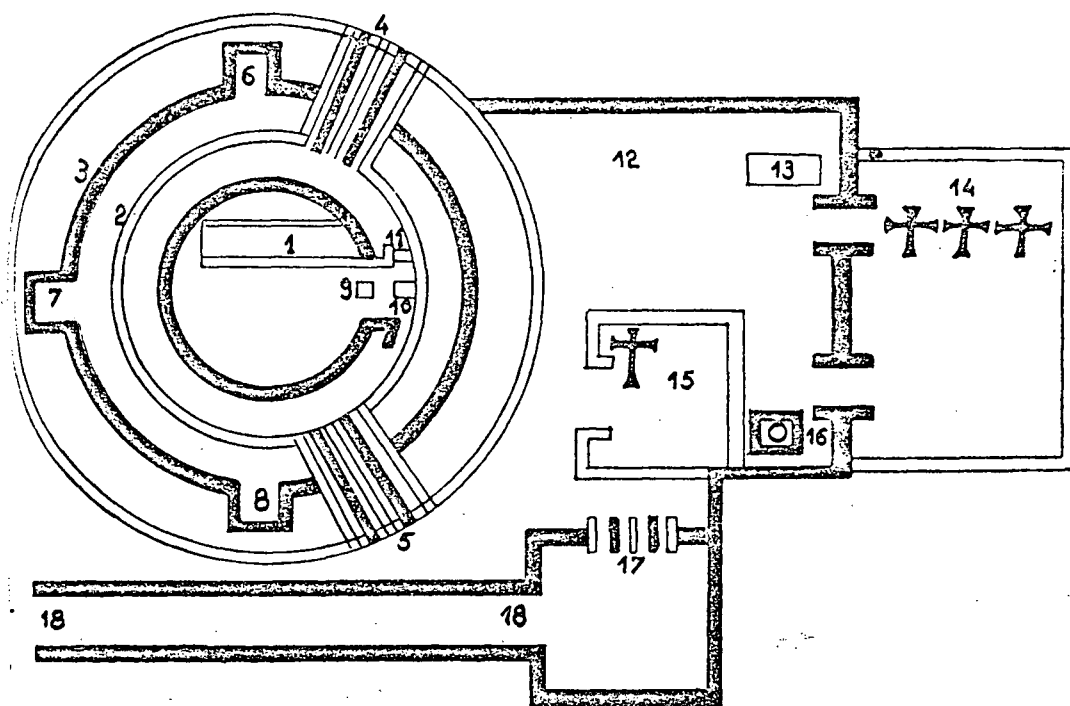
a) Vienna Codex (Cod. 458, fo 4v).

b) Paris Manuscript (B.N. Lat. 13.048, fo 4c).



## LE SCHEMA DU SAINT-SÉPULCRE PAR ARCULFE

D'APRÈS LE MANUSCRIT DE PARIS (BIBL. NAT. LAT. 13 048 , FOL. 4V )



1. Edicule du Tombeau [*sepulchrum d[omi]ni*].
2. Colonnade intérieure.
3. Mur extérieur de la rotonde.
4. Porte des Myrrhophores.
5. Porte royale.
- 6-7-8. *Altaria*.
9. Pierre de l'Ange.
10. Autel.
11. Détail indéterminé.
12. *Platea in qua die et nocte lampoder ardent.*
13. *Mensa lignea in loco altaris Habraham.*
14. *Constanti(ni)a basilica in quo loco crux domini cum binis latronum crucibus sub terra reperta est.*
15. *Golgathana ecclesia.*
16. *Exedra cum calice domini.*
17. *s(an)c(t)e marie ecclesia.*
18. Passage correspondant au grand escalier méridional.

. Les légendes en latin sont celles du manuscrit.

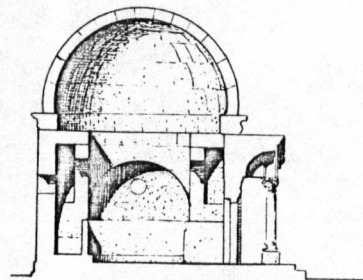
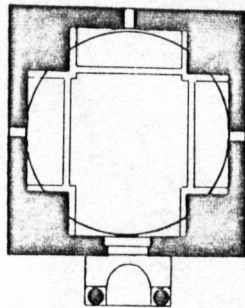
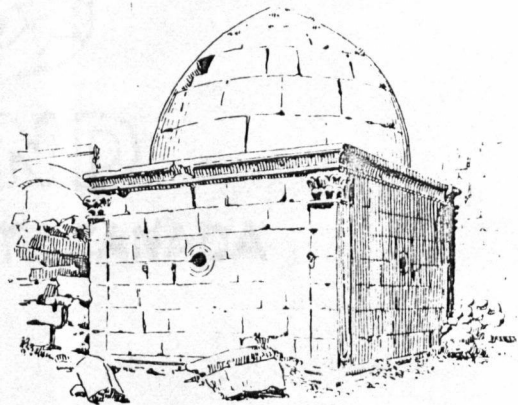
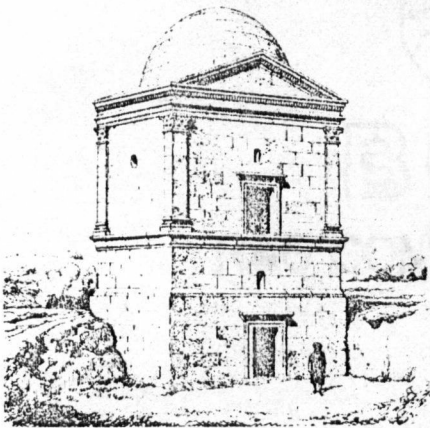
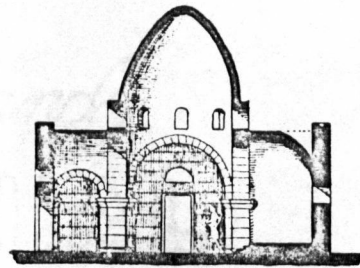
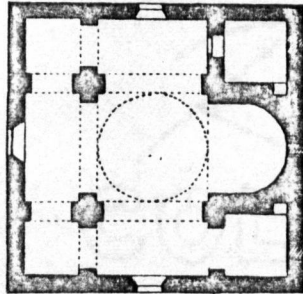
8. Plan. Arculf's plan of the Holy Sepulchre.

c) Scheme of Arculf's plan by Heitz.



9. Wood. Reliquary. Sancta Sanctorum, Rome.
10. Manuscript. Rabbula Codex. Laurentian Library, Florence.





23. Plan. Church No. 3. il Anderin.

24. Illustration. Tomb at Hass.

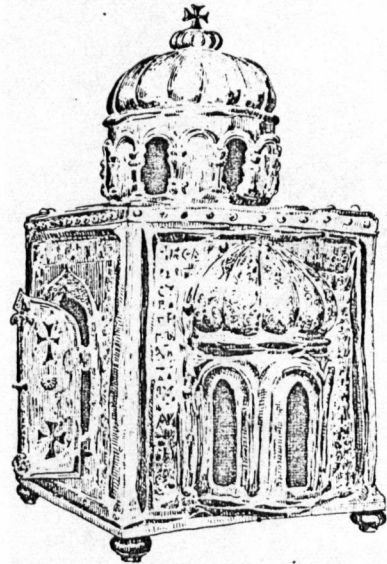
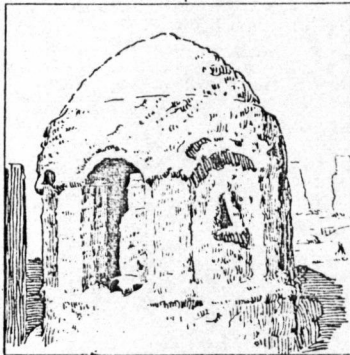
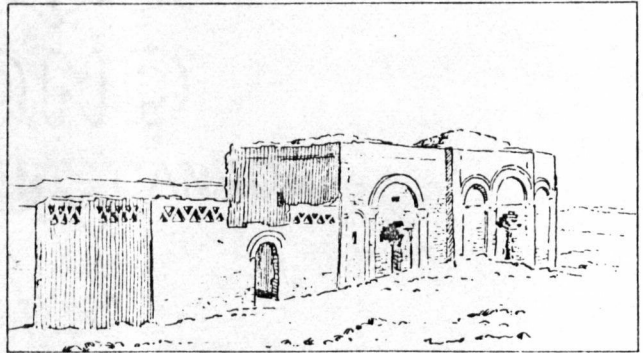
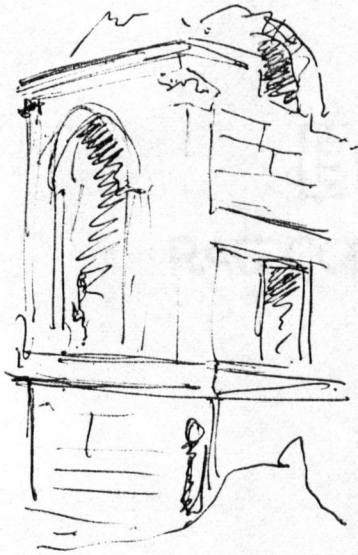
25. Plan. Tomb of Bizzos

a) Elevation

b) Plan.

c) Section.





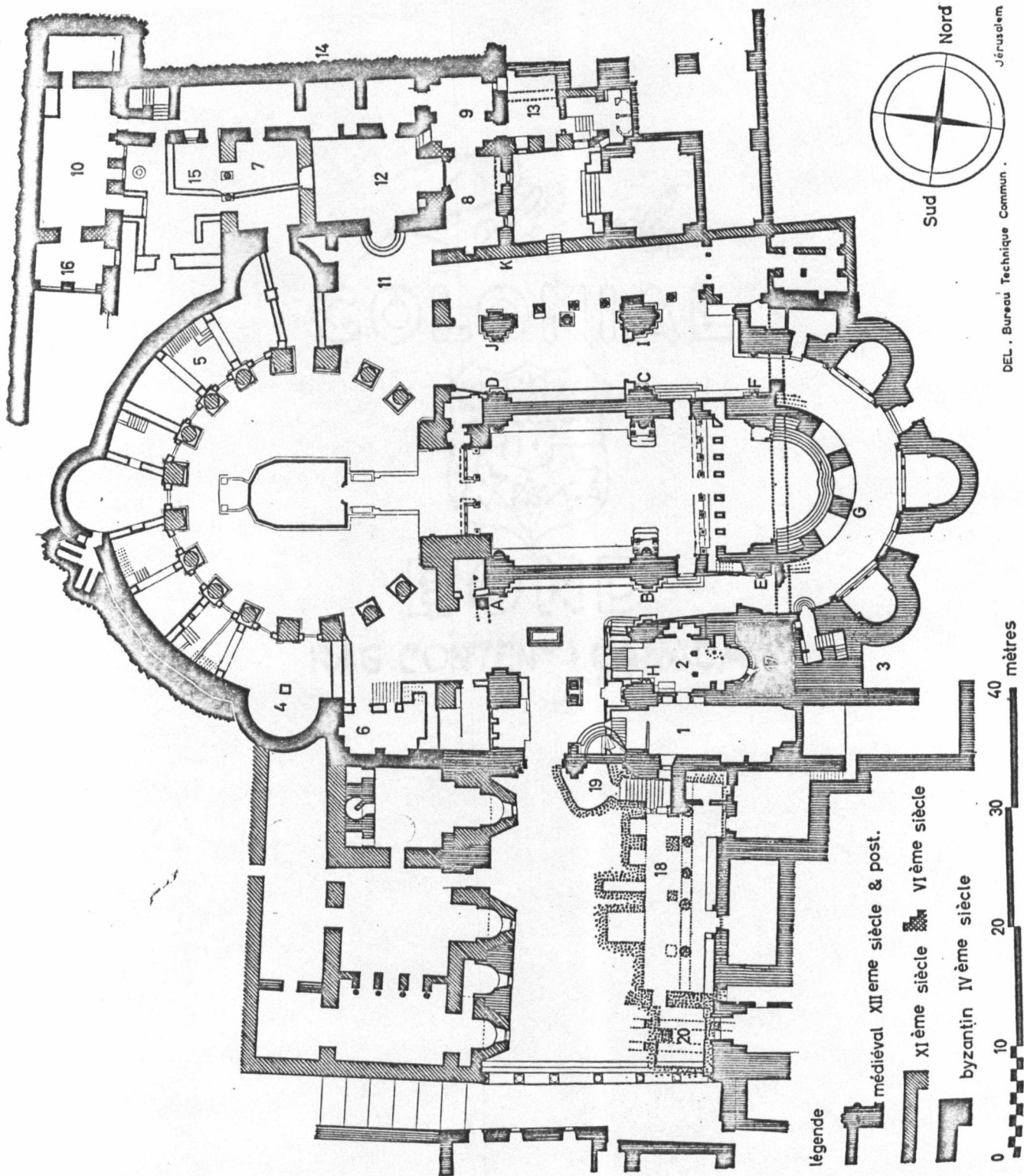
26. Illustration. Tomb at Alif.

27. Illustration. Necropolis. Bagawat, Egypt.

28. Illustration. Tomb. Kharga, Egypt.

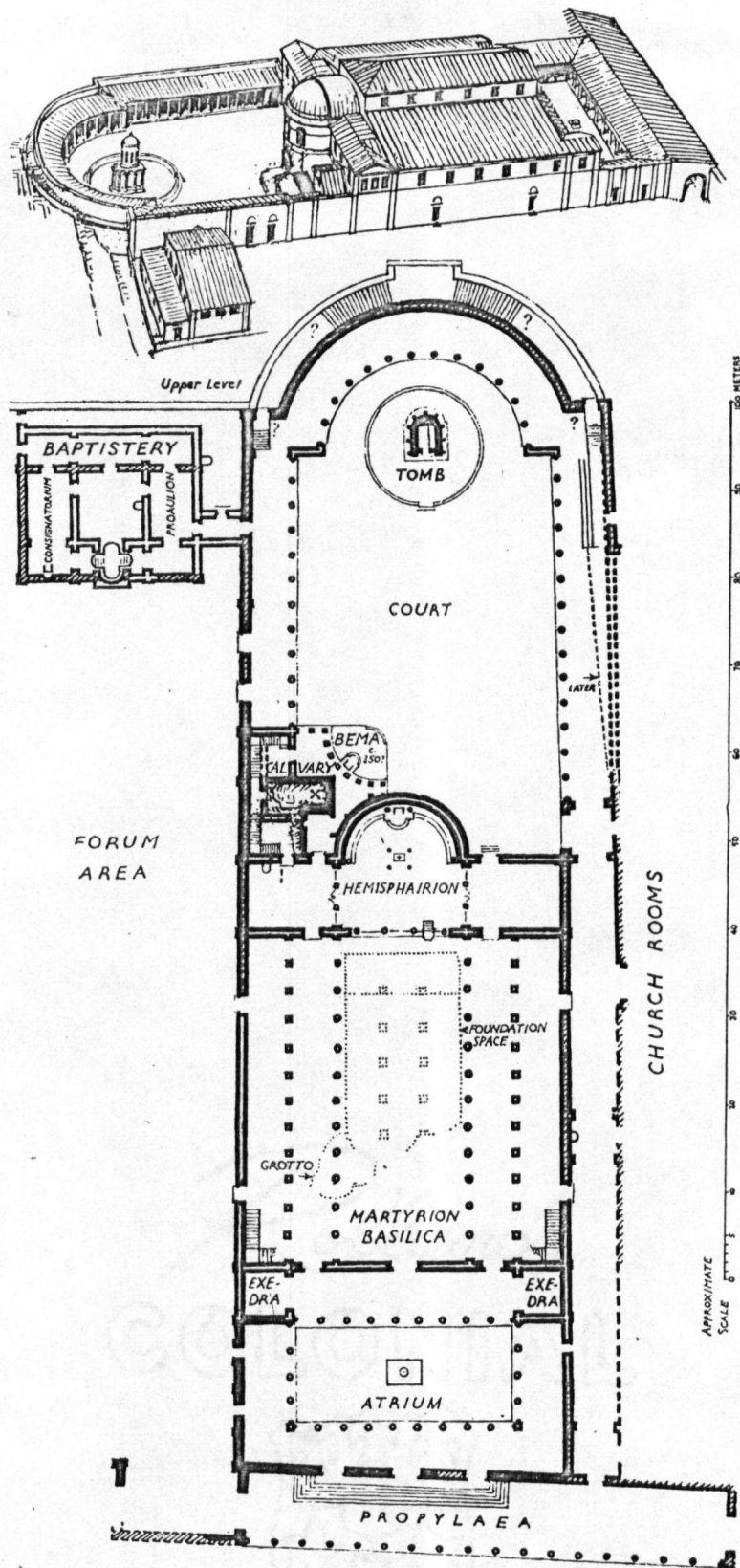
29. Metal. Reliquary. Aachen.





30. The site of the Holy Sepulchre in Jerusalem.  
c) Plan made in 1962.

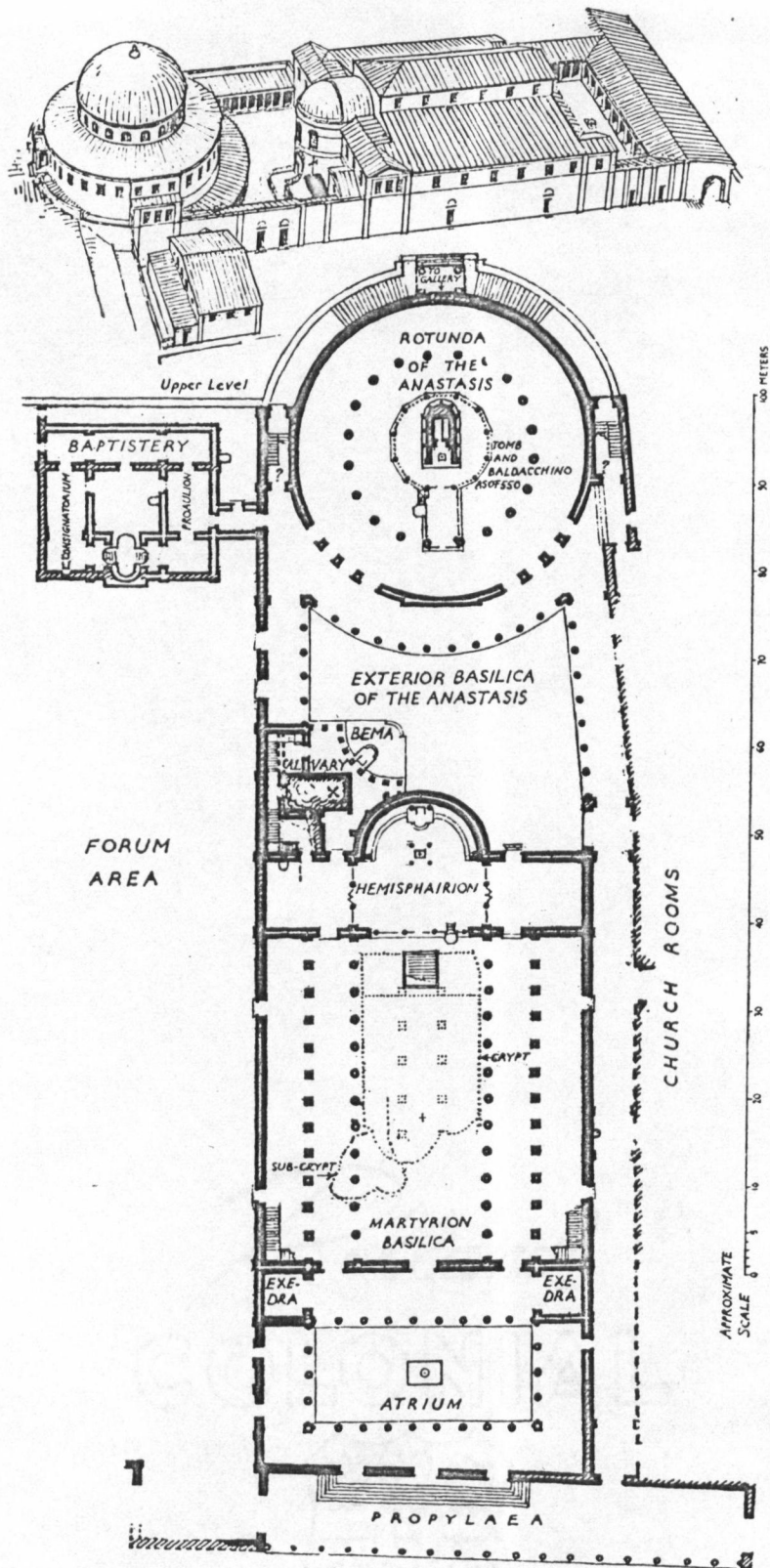




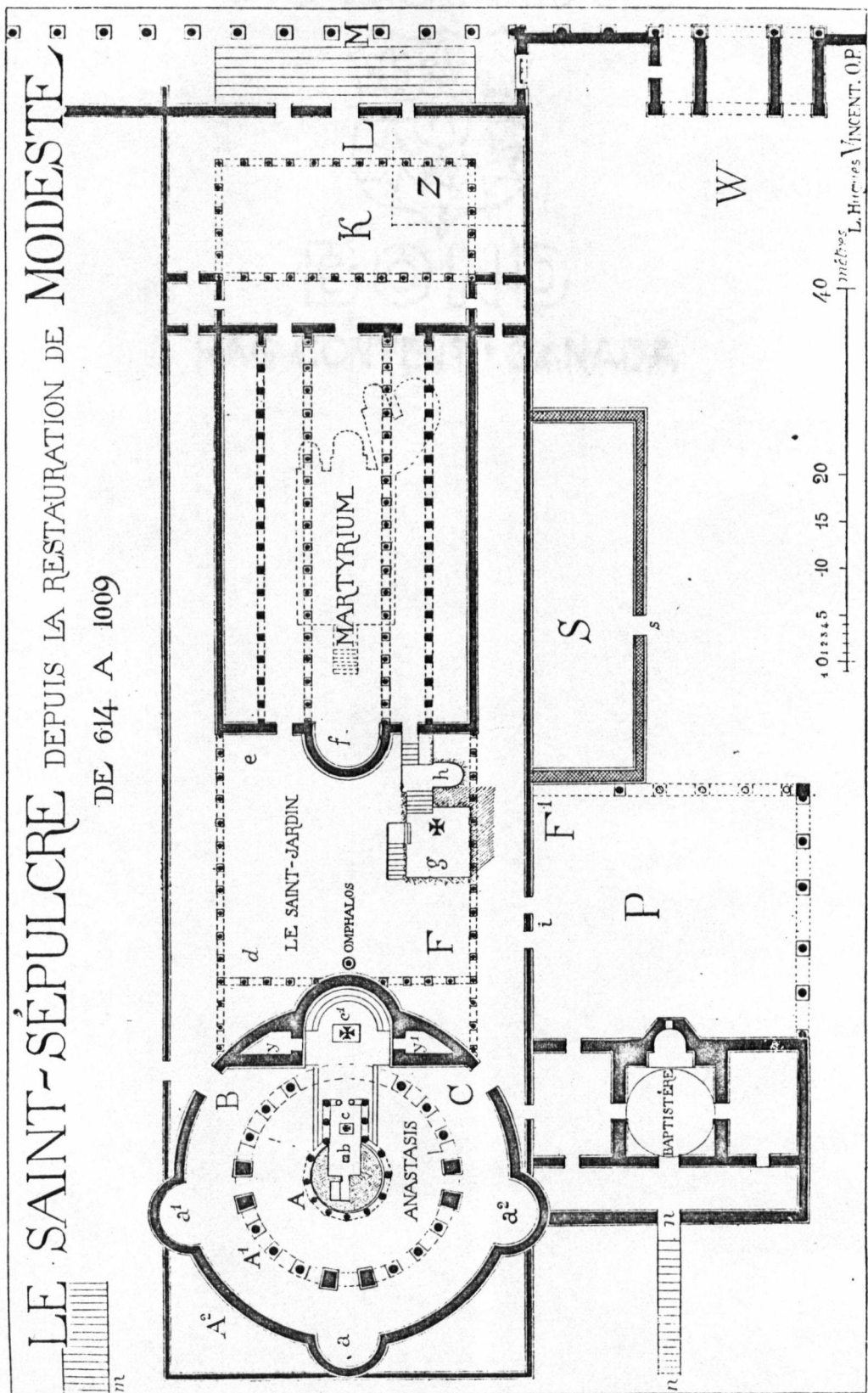
31. Reconstructions of the Holy Sepulchre plan.

a) Reconstruction by Conant, ca. 335.

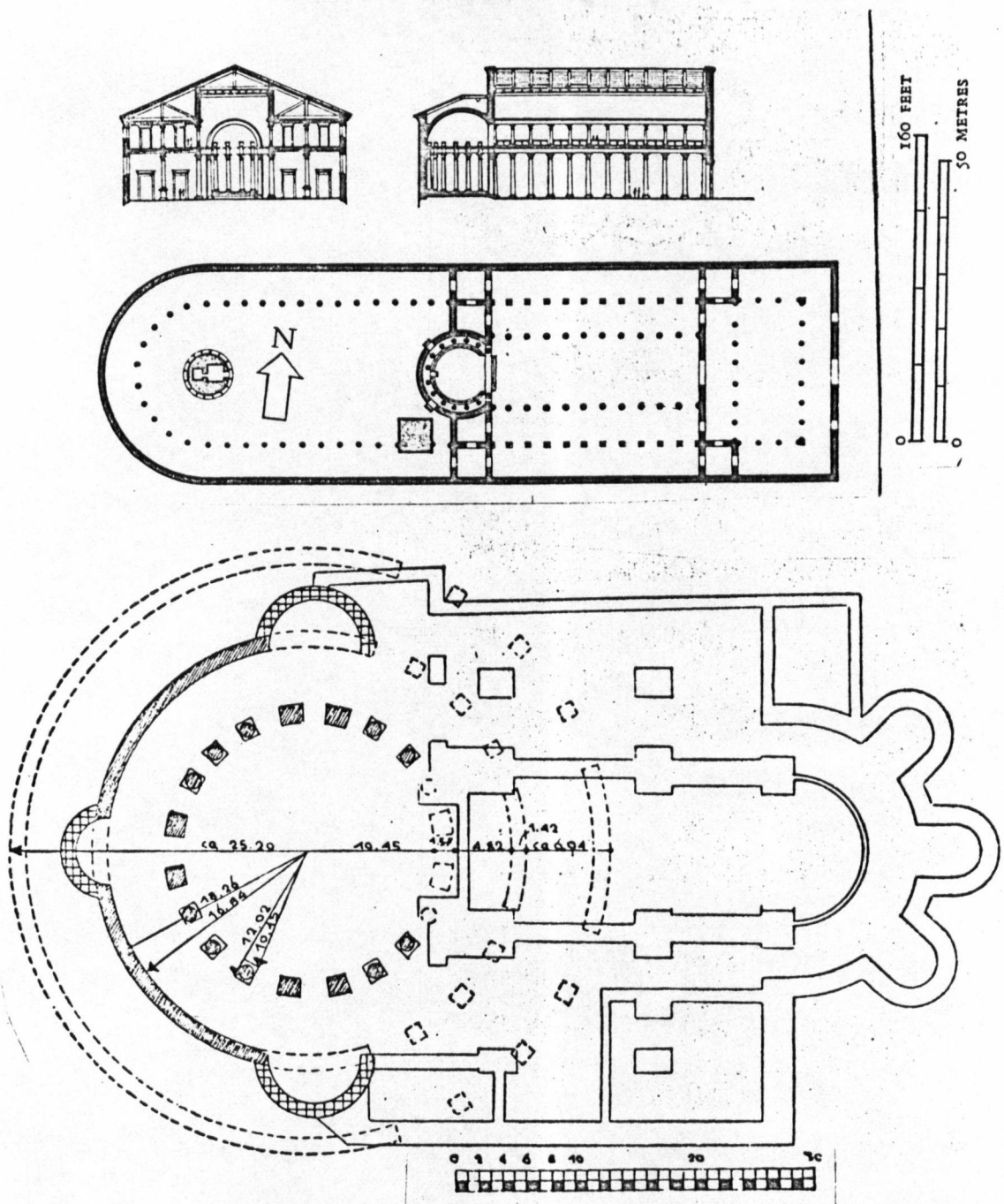




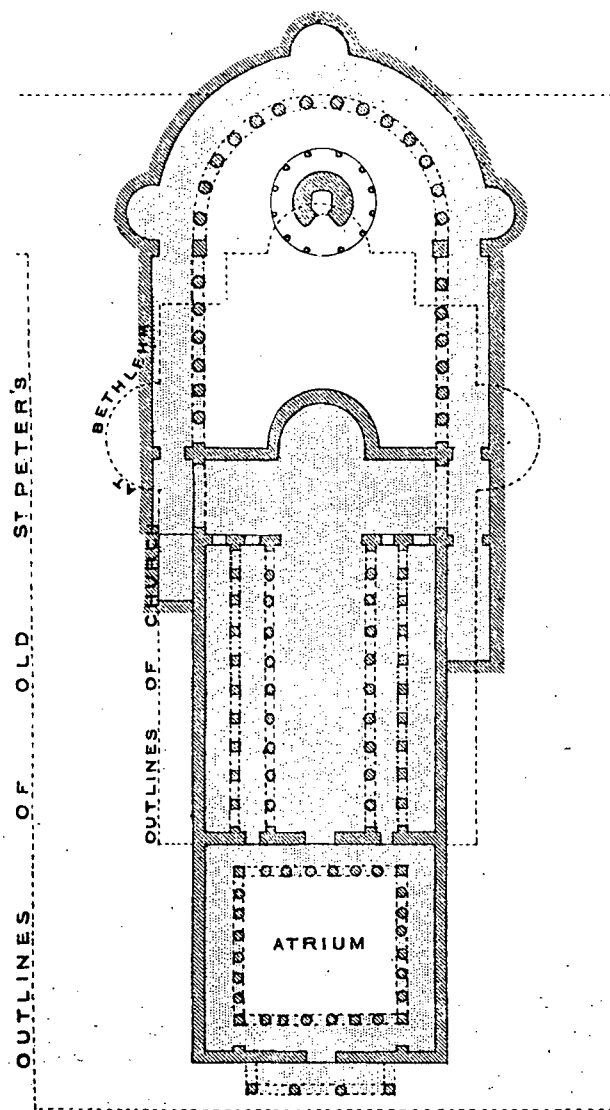
b) Reconstruction with Rotunda by Conant.



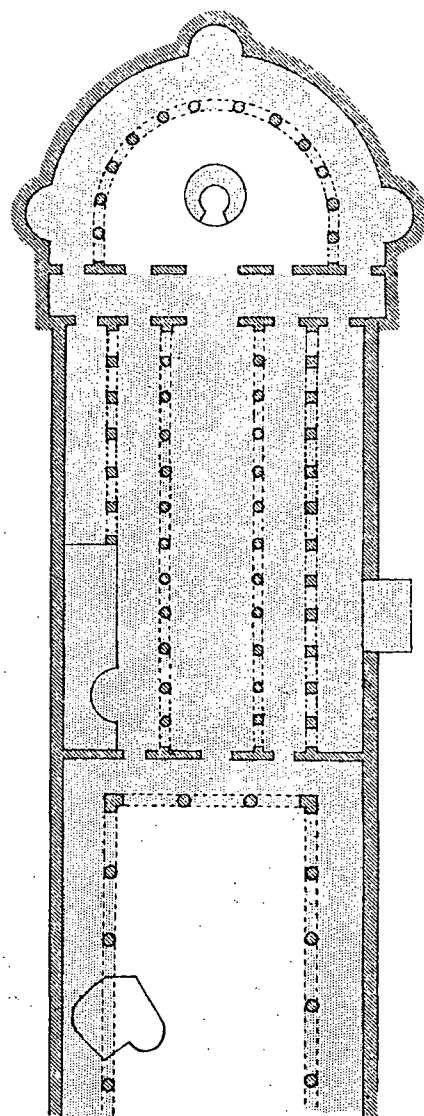
c) Reconstruction for 614-1009 by Vincent.



- d) Reconstruction by Krautheimer, ca. 335.
- e) Reconstruction with Rotunda by Krautheimer.



WILLIS.

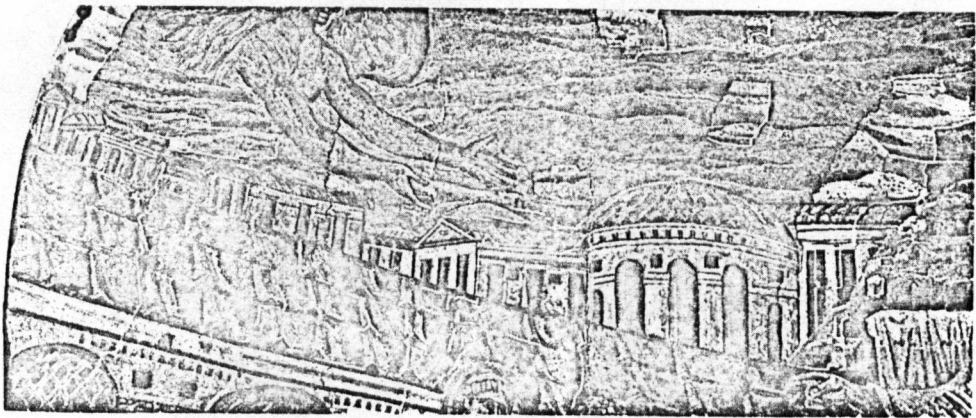
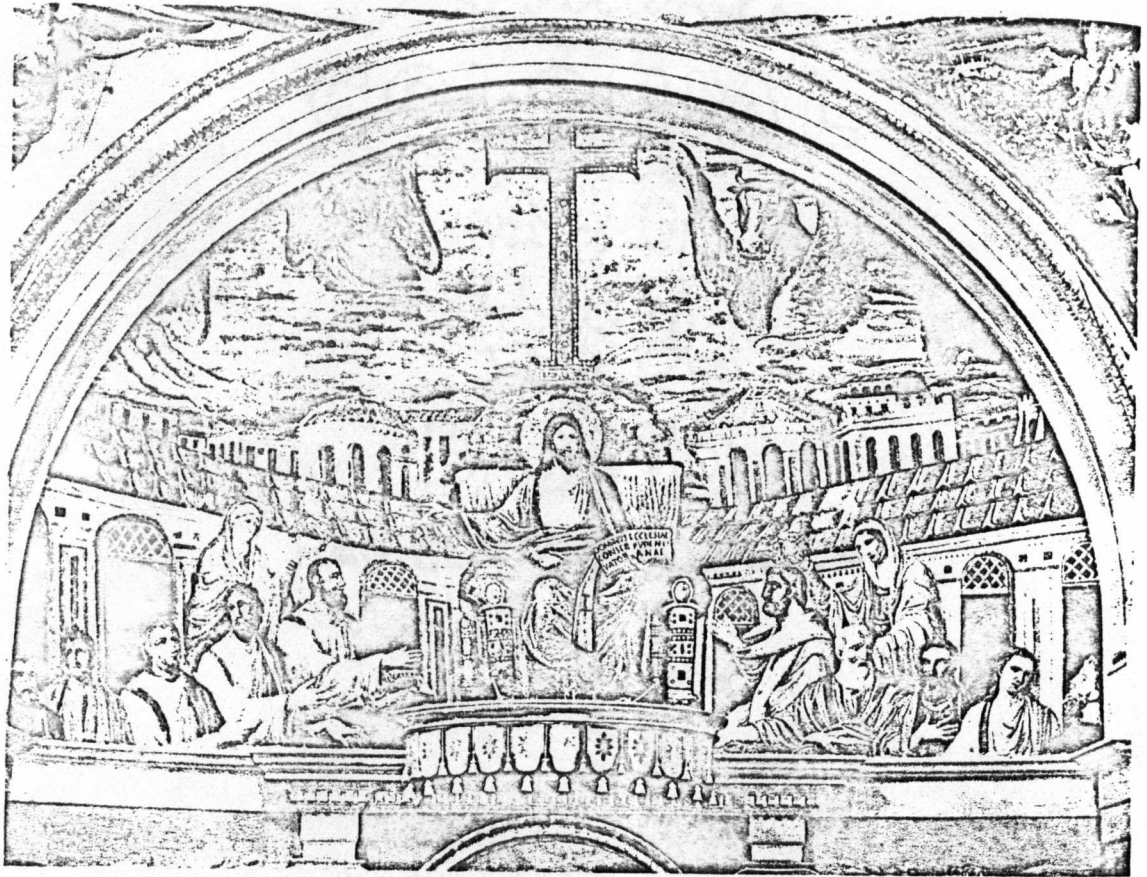


DE VOCÜÉ.

f) Reconstruction by Willis.

g) Reconstruction by De Vogue.

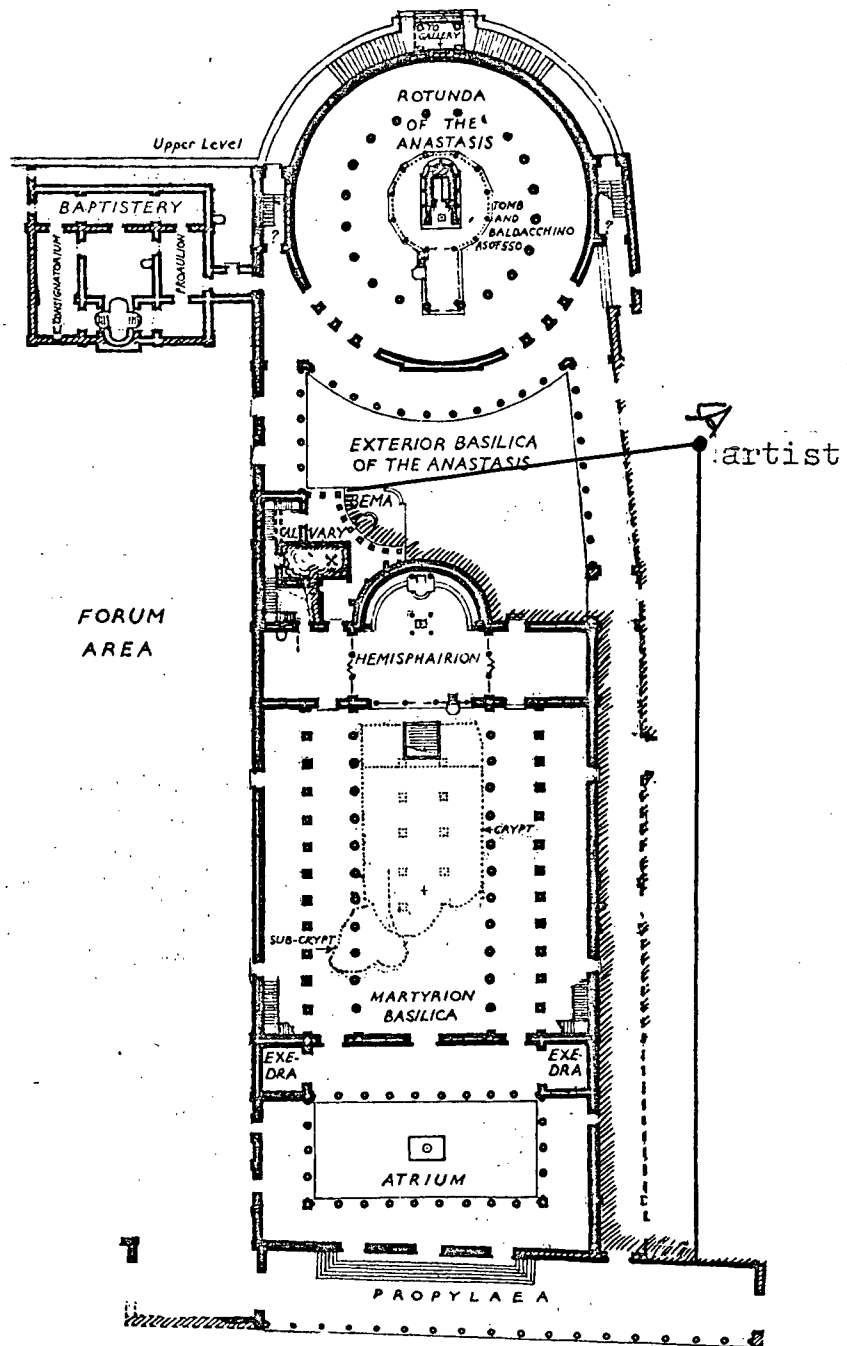




32. Mosaic. S. Pudenziana. Rome.

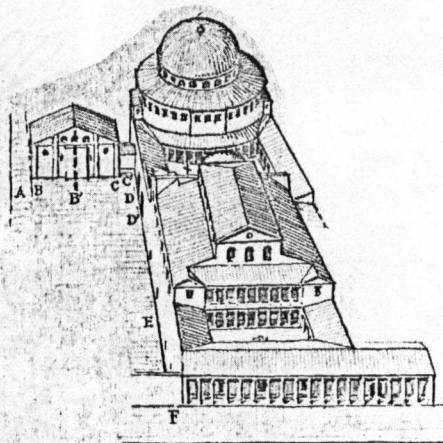
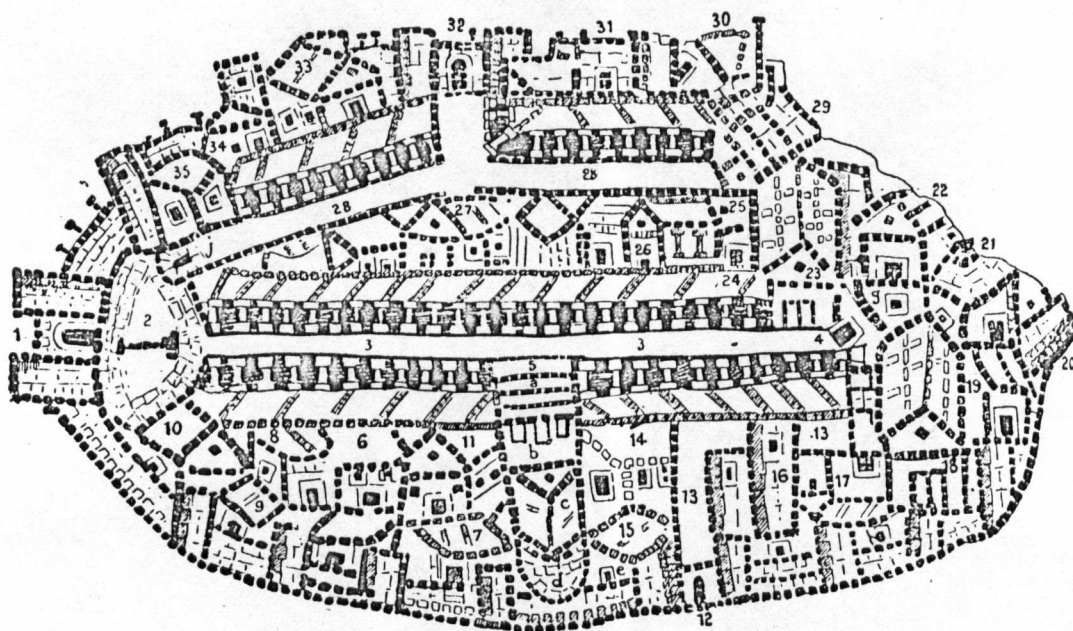
a) Apse view.

b) Detail of left side.



32. Mosaic. S. Pudenziana. Rome.

- c) Reconstruction of artist's position for the mosaic.



33. Mosaic. Map of Jerusalem. Madaba.

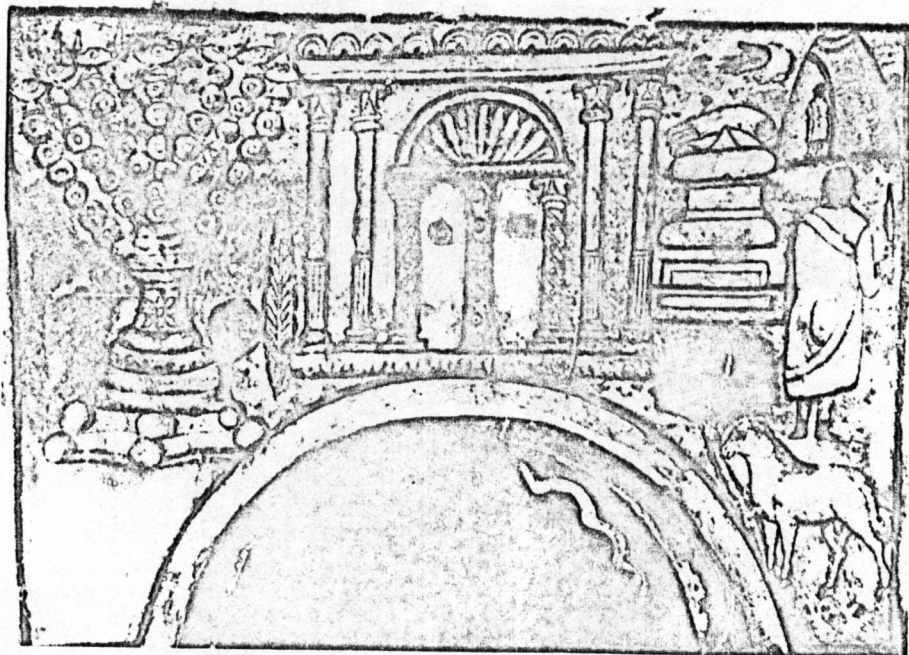
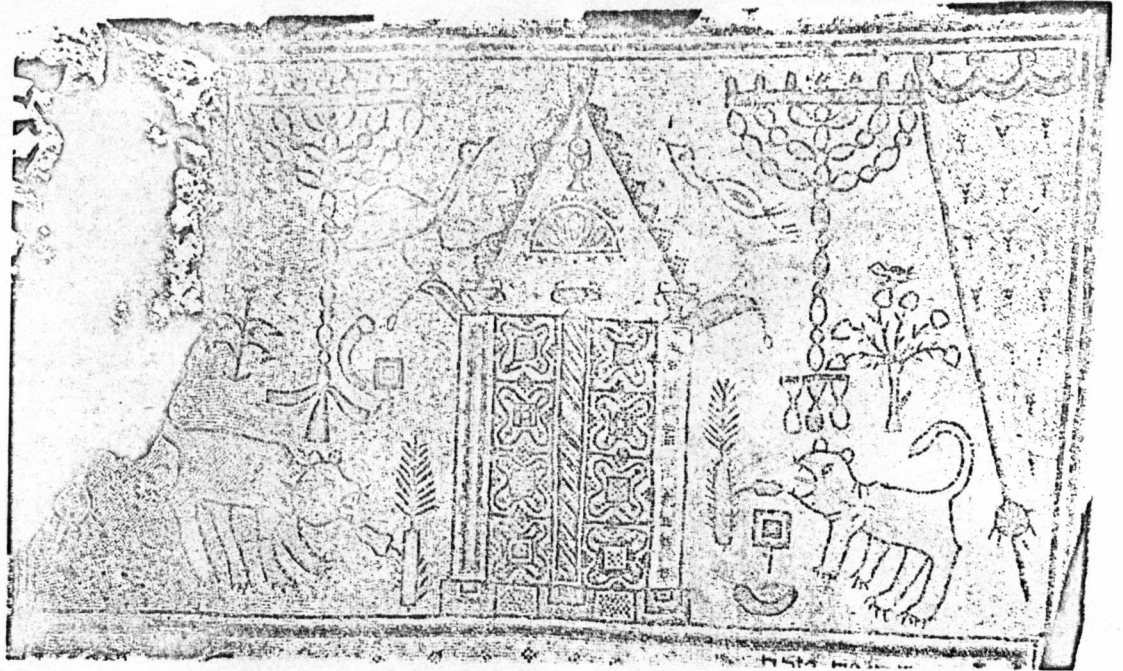
- a) Full map.
- b) Detail of Holy Sepulchre.
- c) Conant's reconstruction of view.



# 18. Coins and Relief.

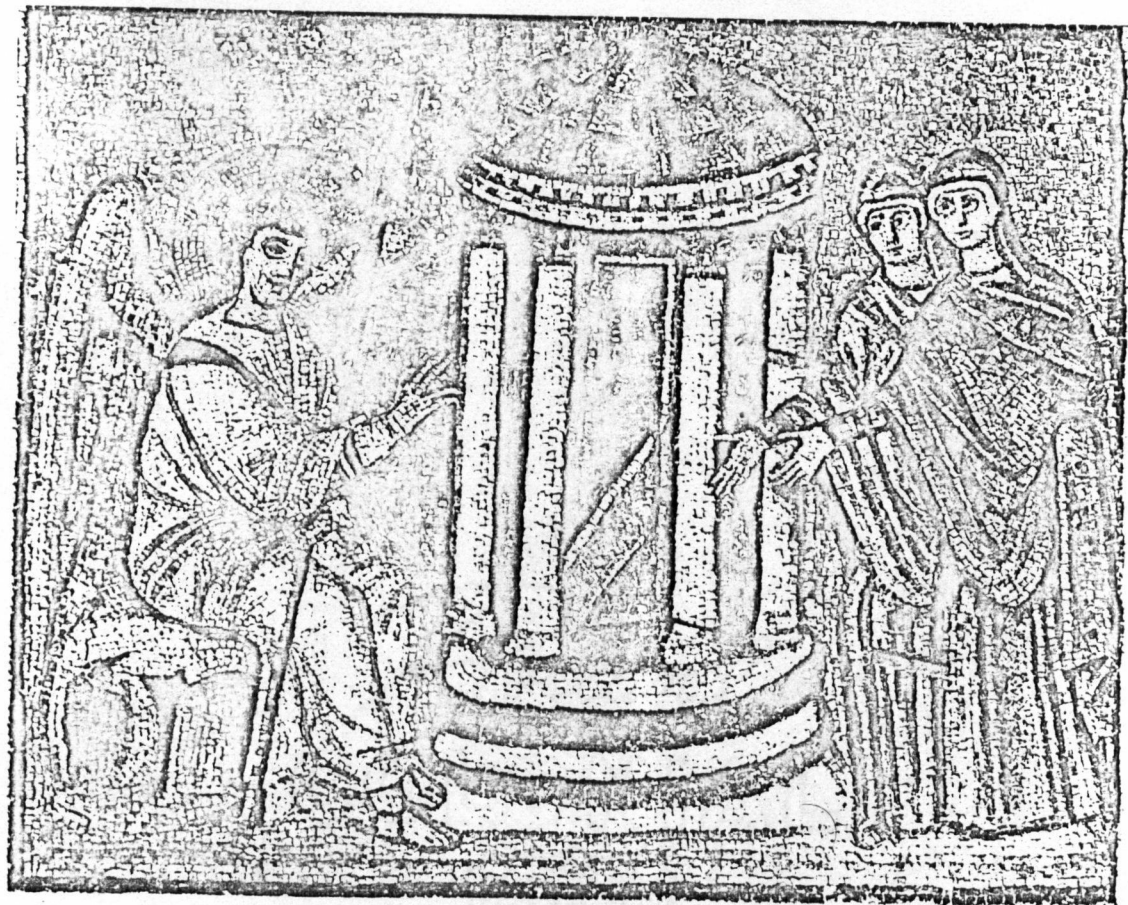
- |                                      |  |
|--------------------------------------|--|
| a) Divus Romulus (309)               | b) Trebonianus Gallus and Valusian         |
| c) Maximianus.                       | d) Maxentius in honor Constantius Chlorus. |
| e) Maxentius - "Tomb" of Maximianus. | f) Roman relief.                           |



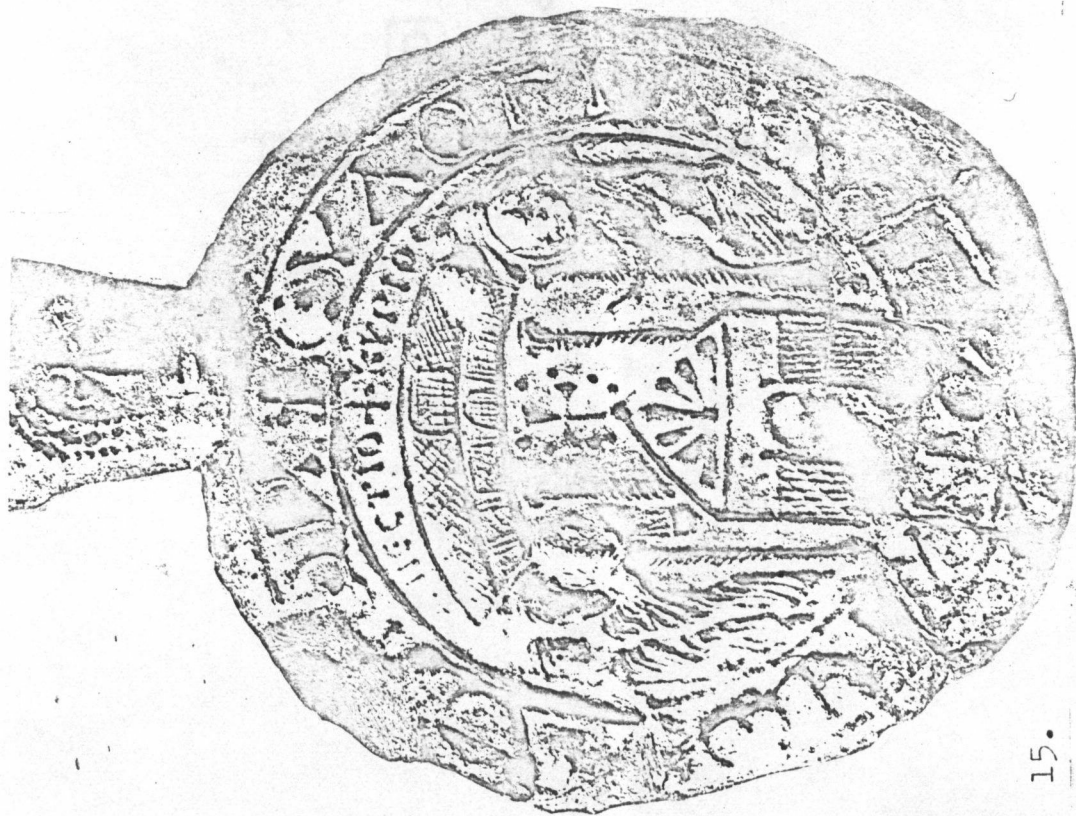


19. Sacred Portal.

- a) Mosaic. Beth Alpha.
- b) Painting. Dura Europus.



17. Mosaic. S. Apollinare Nuovo, Ravenna.



15.

d) Bobbio.

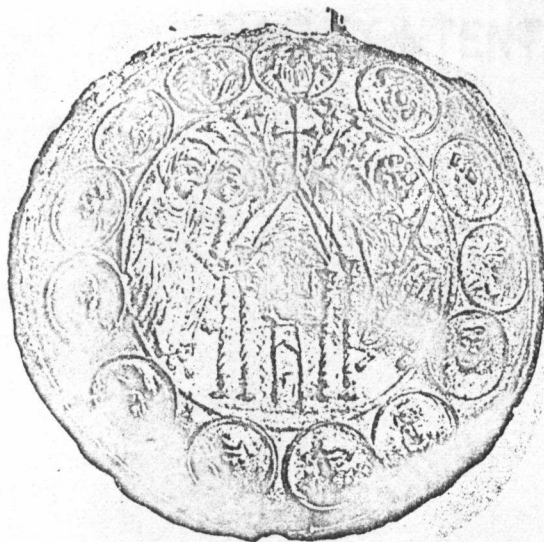


e) Monza.



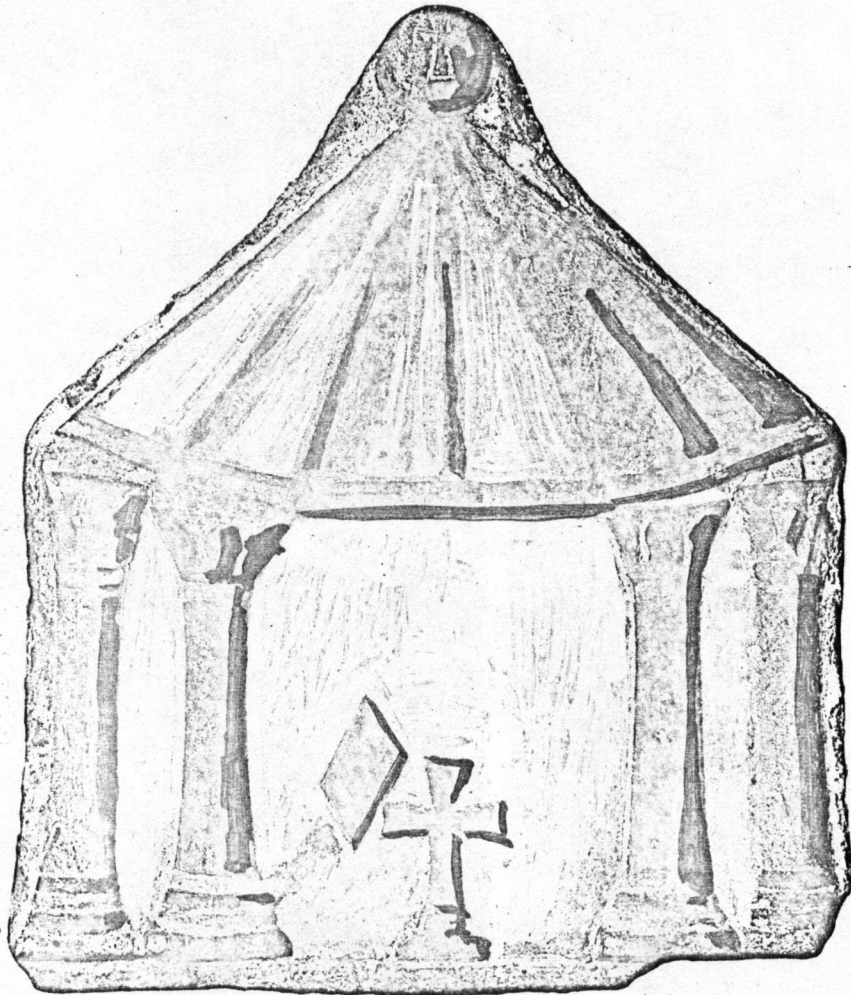


16. Glass. Cup. Bardo Museum, Tunis.



15. Lead. Ampullae.

- a) Monza.
- b) Monza.
- c) Monza.



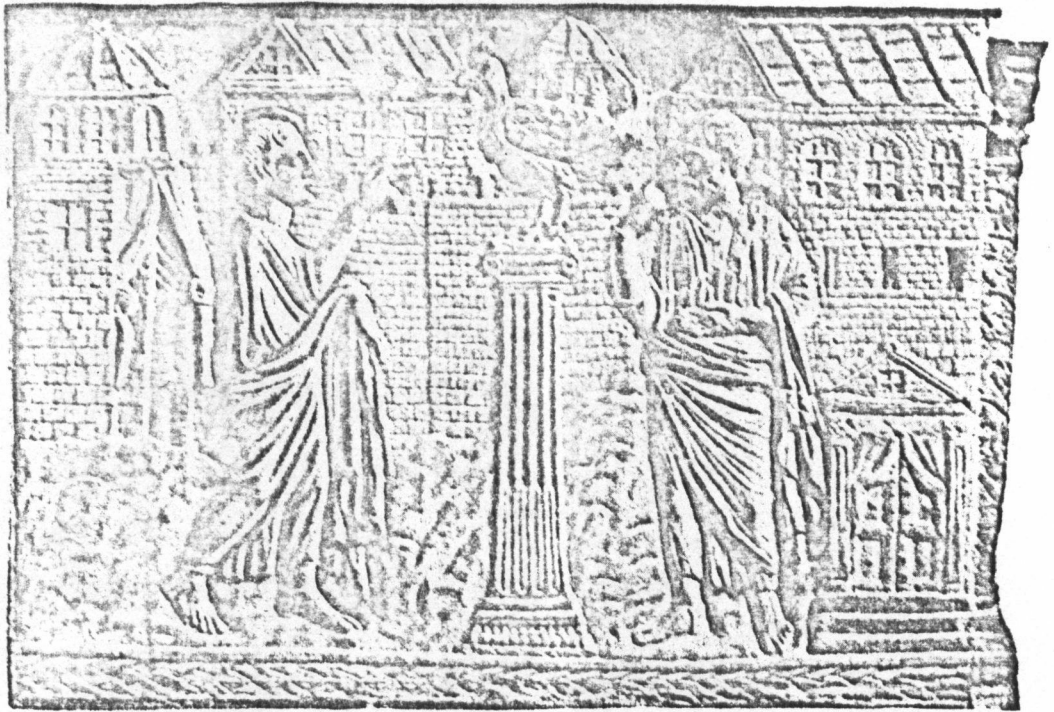
13. Metal. Coptic censor.

14. Stone. Stone Relief. Dumbarton Oaks, Washington.



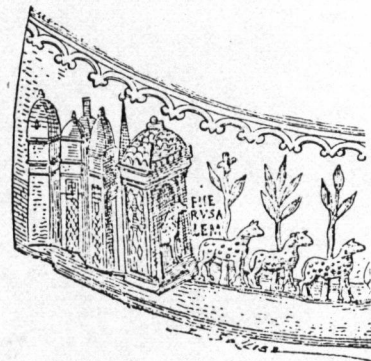
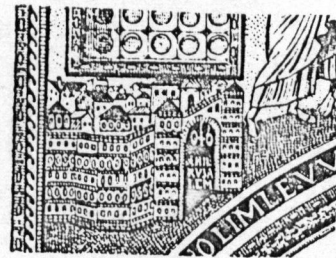
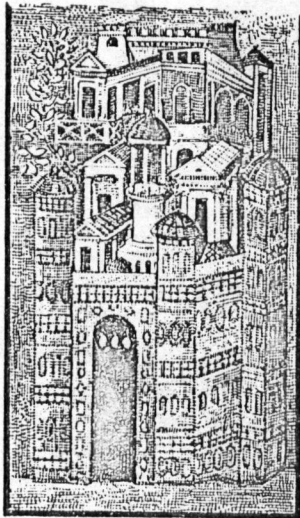
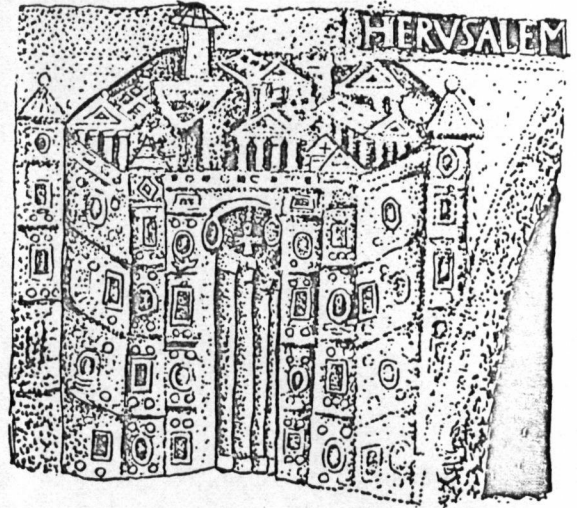
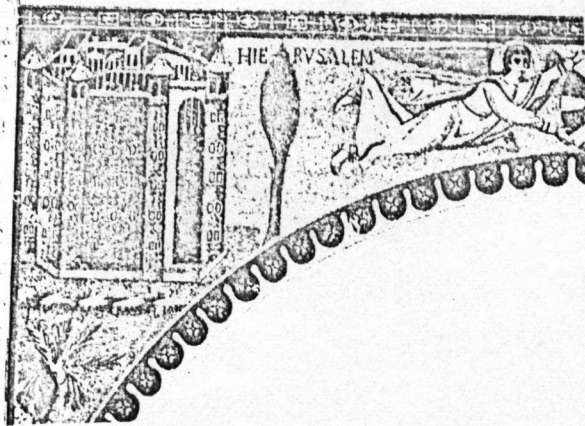


11. Silver. Perm Plate. Hermitage, Leningrad.
12. Medalion. Sacrifice of Isaac. Trier.



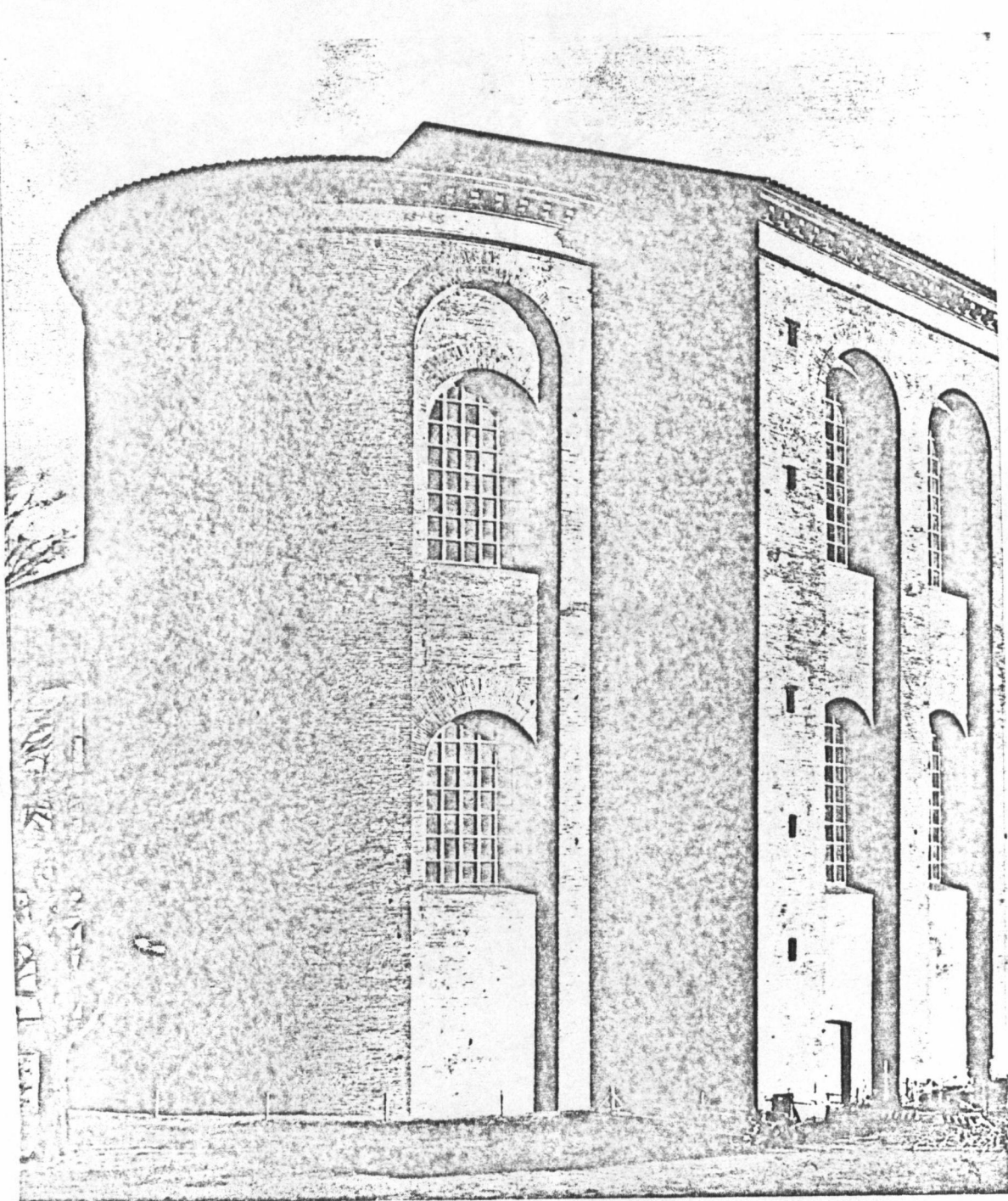
34. Stone. Sarcophagus. Lateran Museum, Rome.



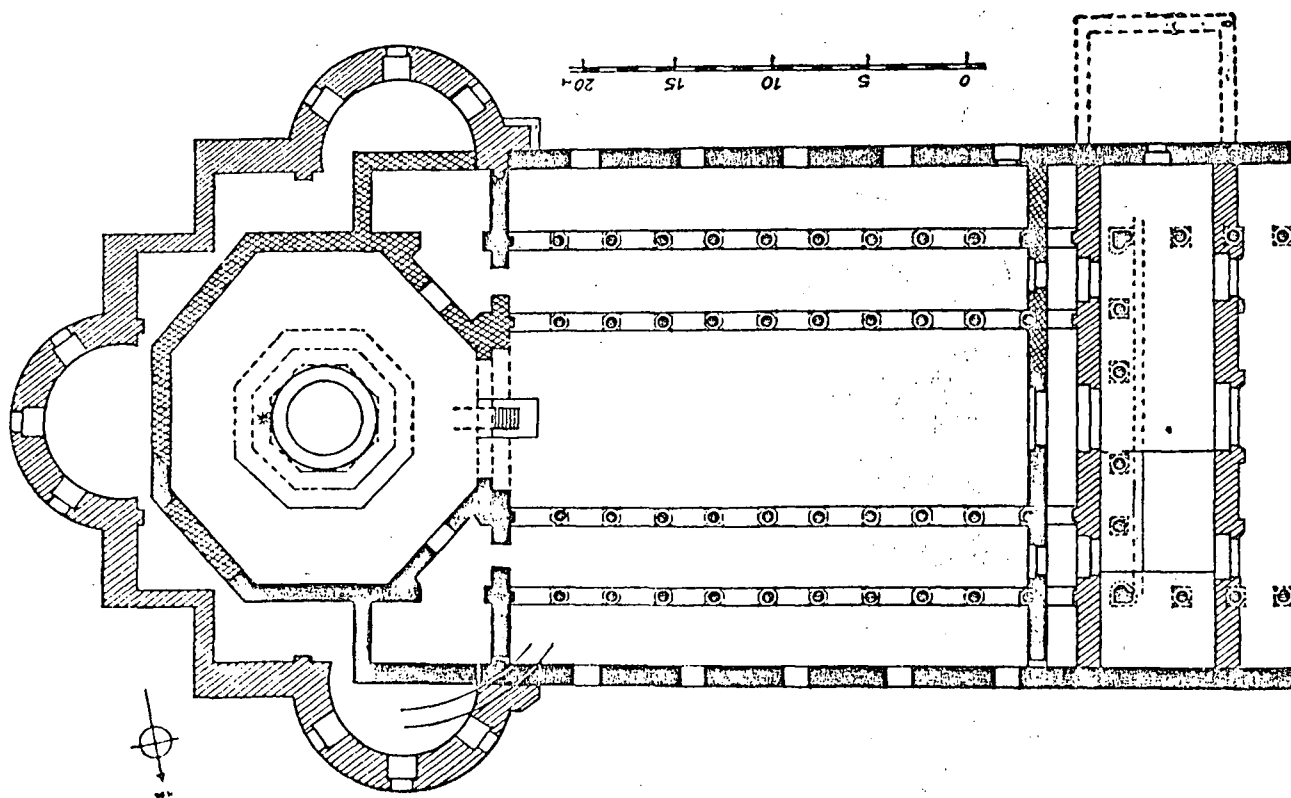
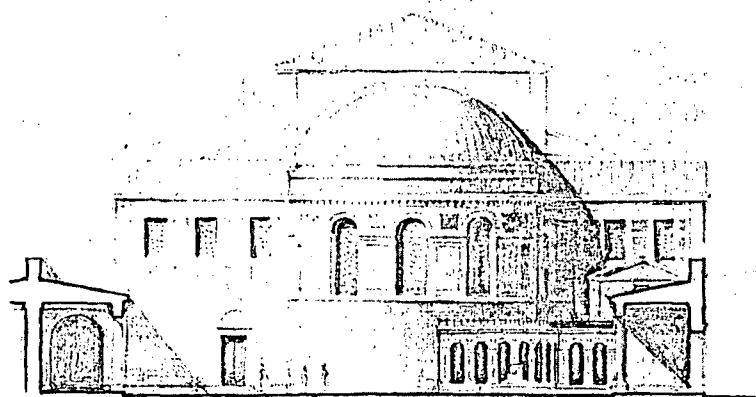


35. Mosaic. Views of Jerusalem.

- a) S. Vitale, Ravenna
- b) S. Maria Maggiore, Rome.
- c) S. Giovanni Lateran, Rome.
- d) S. Lorenzo fuori le Mura
- e) St. Peter's, Rome.



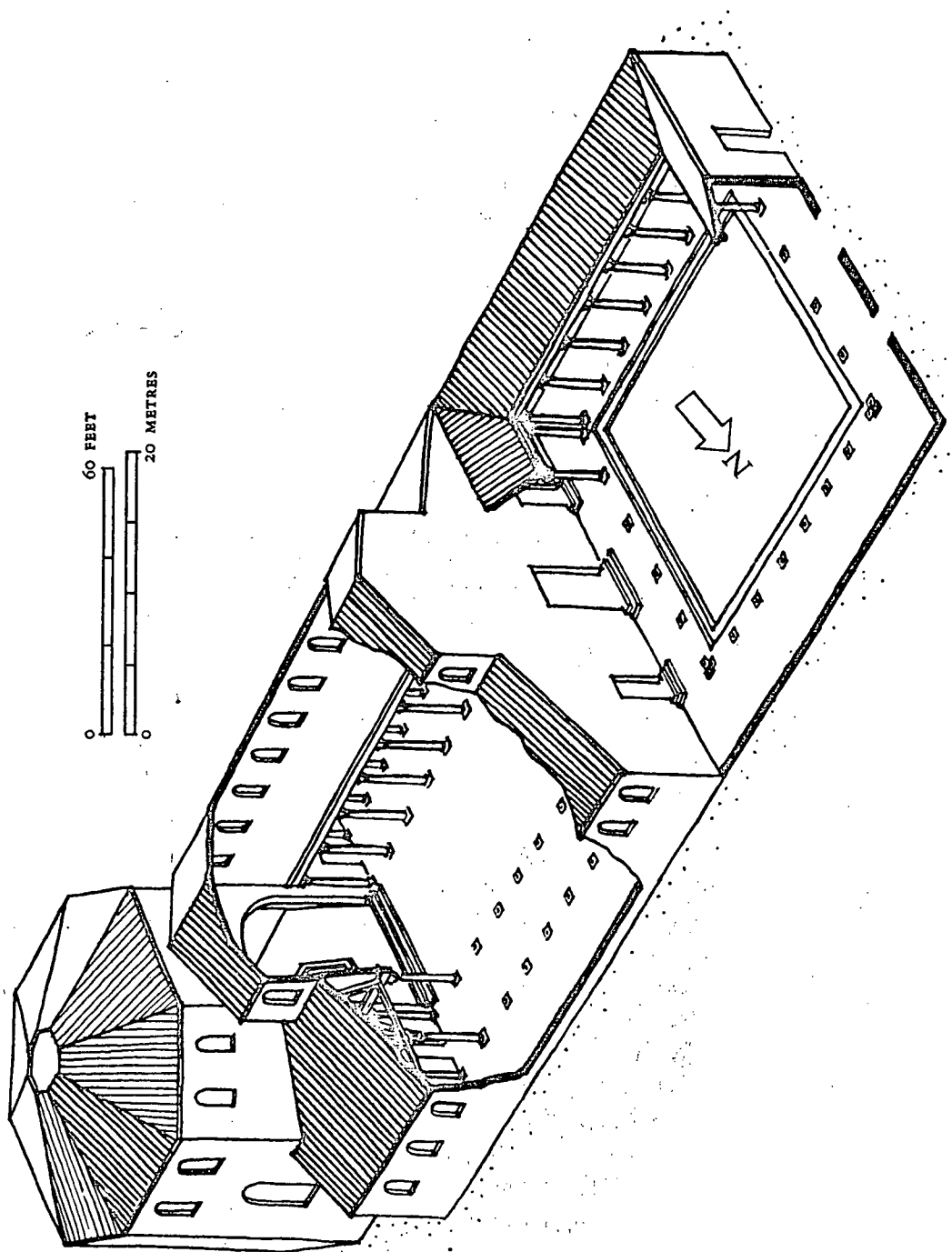
36. Illustration. Exterior view. Basilica, Trier.



37. Reconstruction of the Martyrion Hemisphaerion.

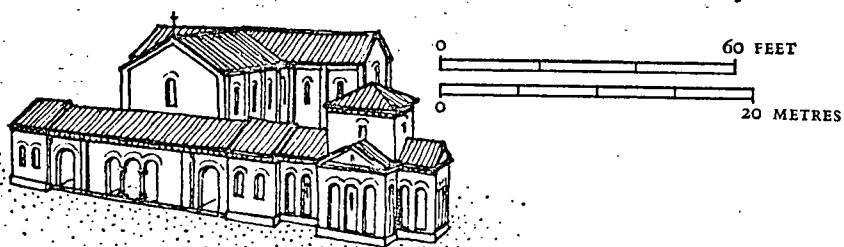
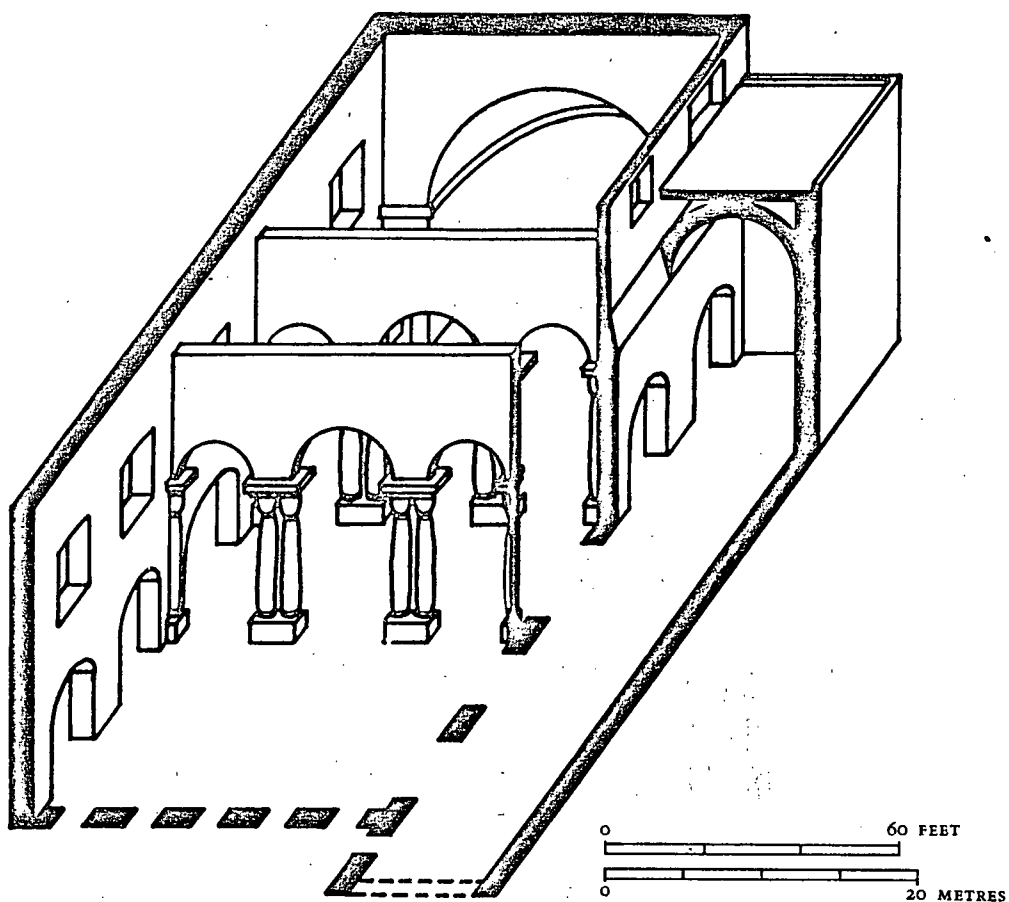
38. Plan. Church of the Nativity. Bethlehem.

a) Plan of 4th C. with  
6th C. additions.



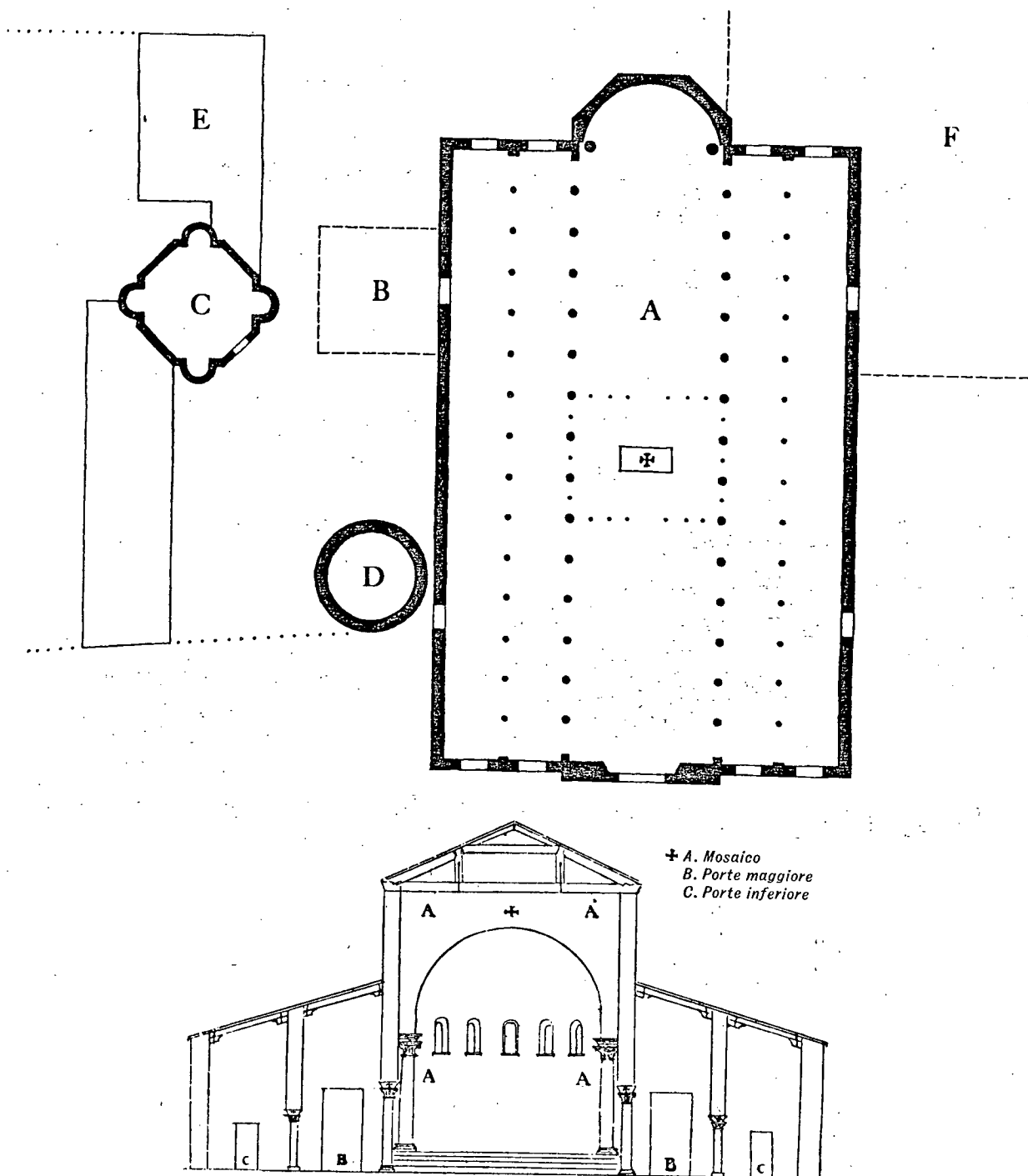
38. Plan. Church of the Nativity. Bethlehem.

b) Elevation



39. Plan. S. Croce in Gerusalemme. Rome.

40. Plan (Isometric). S. Croce and Mausoleum of Galla Placidia, Ravenna.



41. Plan. Basilica Ursiana (Cathedral). Ravenna.

a) Plan.

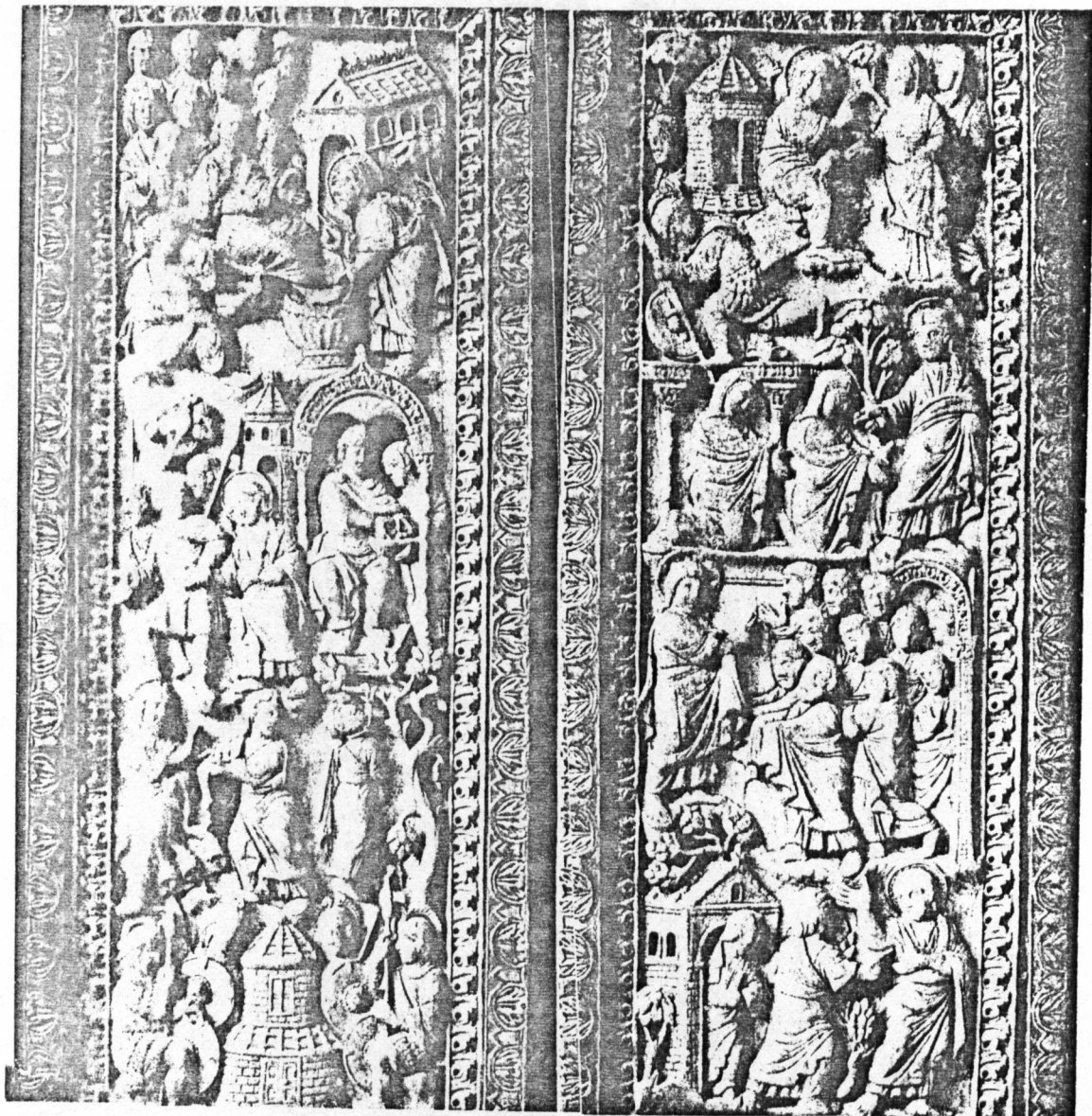
b) Elevation.





42. Stone. Sarchopagi.

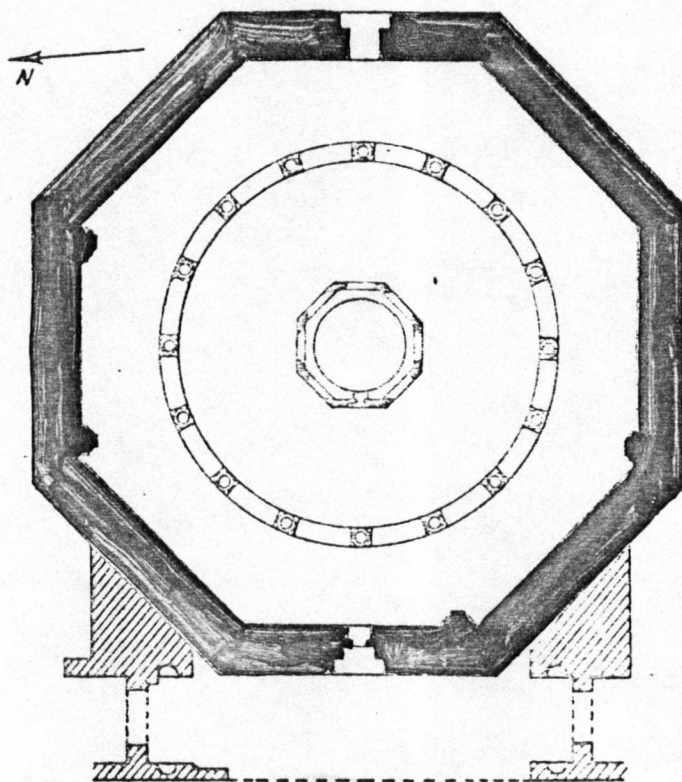
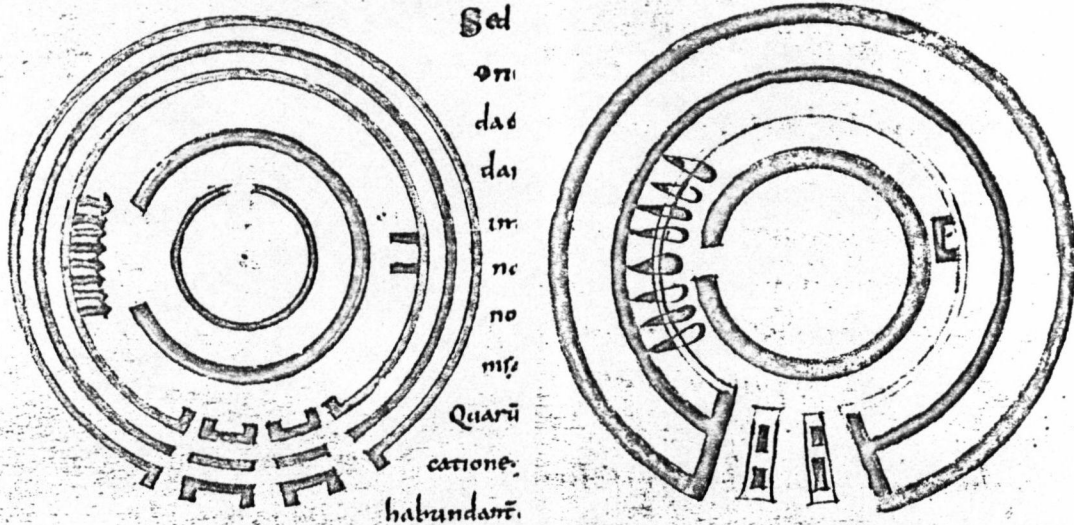
- a) Vatican Basilica, Rome.
- b) Southern Gaul, Arles
- c) Sarcophagus of S. Celso. Milan.



43. Ivory. Basilewsky Situla. Victoria and Albert Museum, London.



tae rotae formula: haec descripta uncula di-subiecta

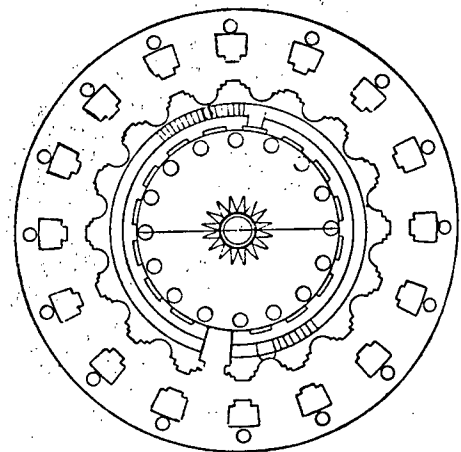
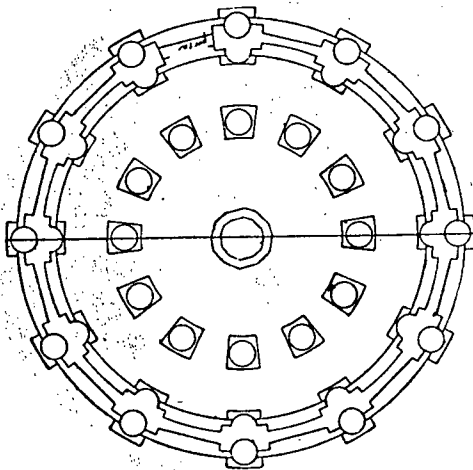
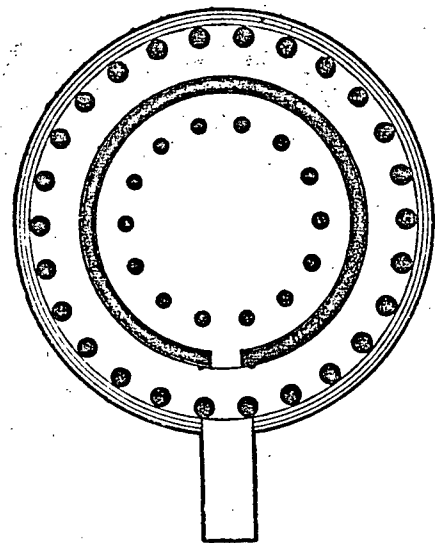
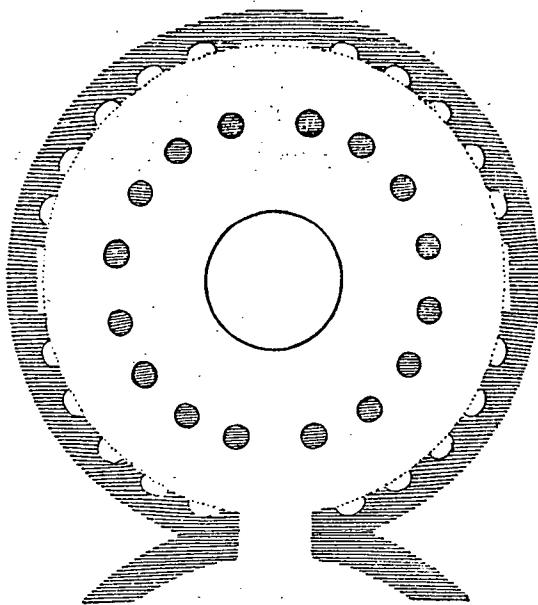


44. Plan. Arculf's plan of the Church of the Ascension.

a) Vienna Codex (Cod. 458, fo IIv).

b) Paris Manuscript (B.N. Lat. 13.048, fo 14r).

45. Plan. Church of the Ascension. Mount of Olives.



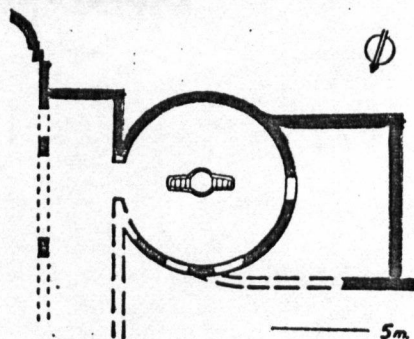
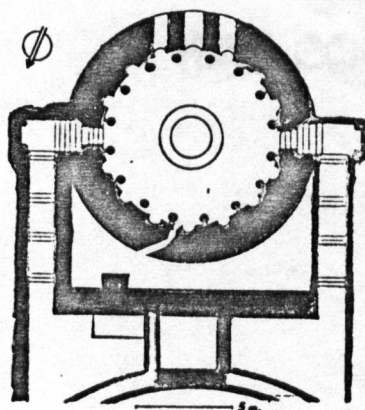
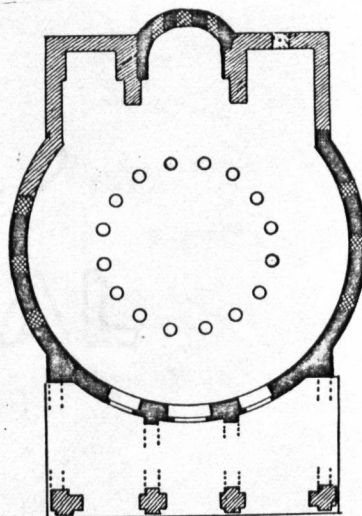
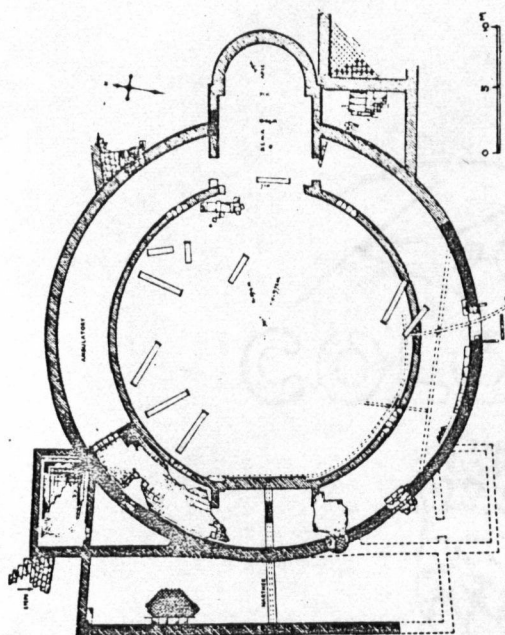
46. Plan. Circular Roman buildings.

a) Roman.

b) Tholos. Epidaurus.

c) Roman

d) Roman.

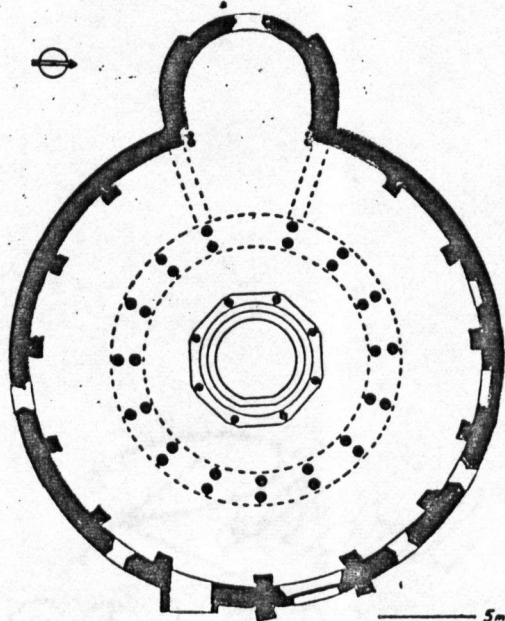
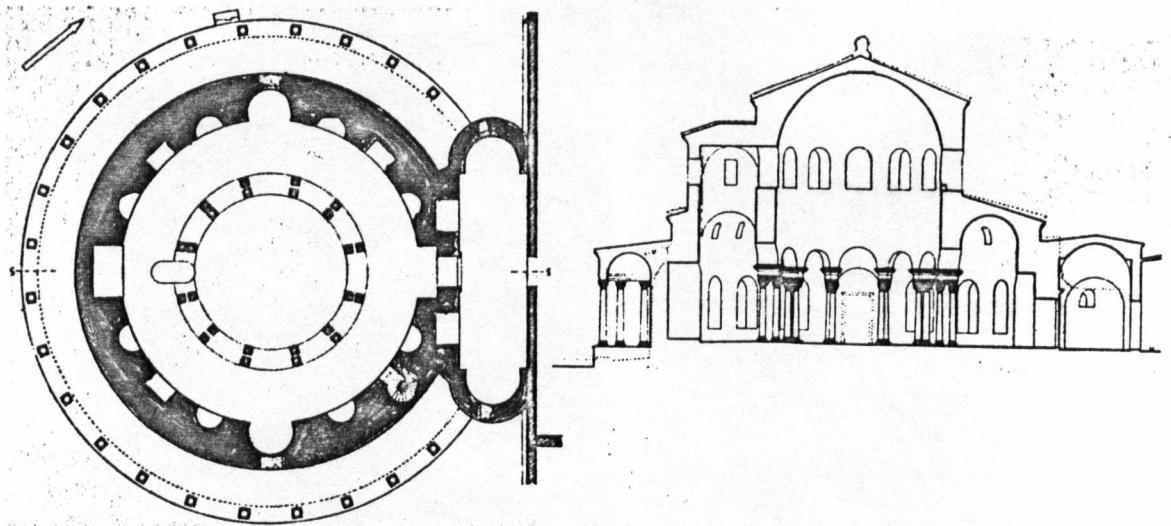


47. Plan. Rotunda. Beisan.

48. Plan. Rotunda. Fa'lul.

49. Plan. Damous el-Karita.  
Cartage.

50. Plan. Rotunda.  
Aljezares.



51. Plan. S. Costanza. Rome.

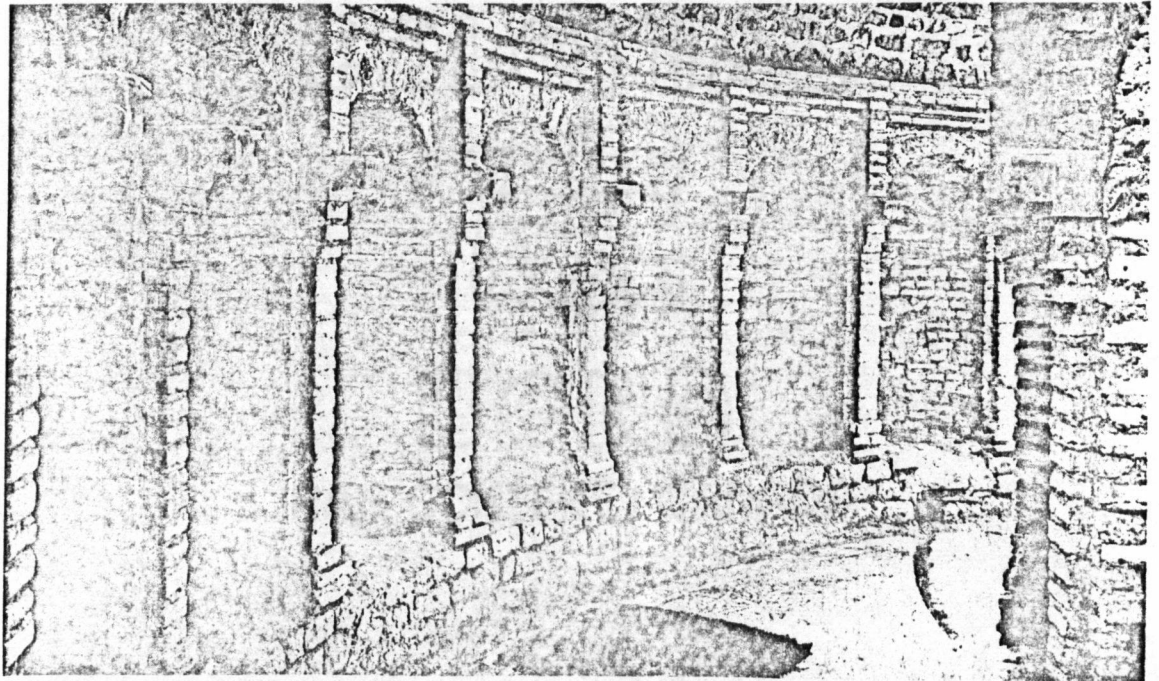
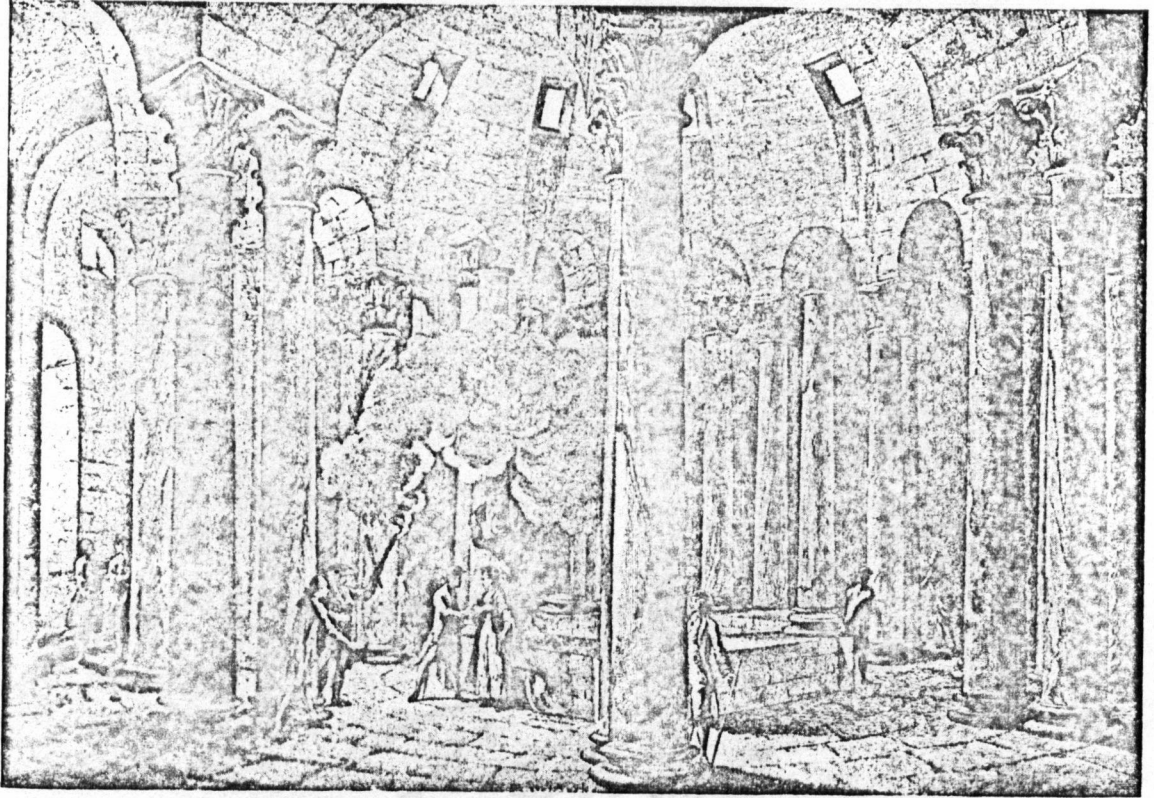
a) Plan

b) Elevation.

52. Plan and Illustration. Baptistry of S. Maria Maggiore.  
Nocera Inferiore.

a) Plan



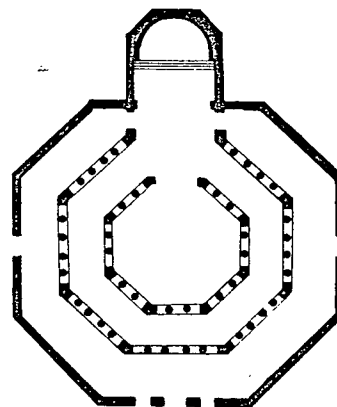
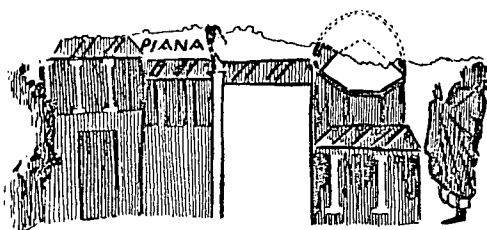
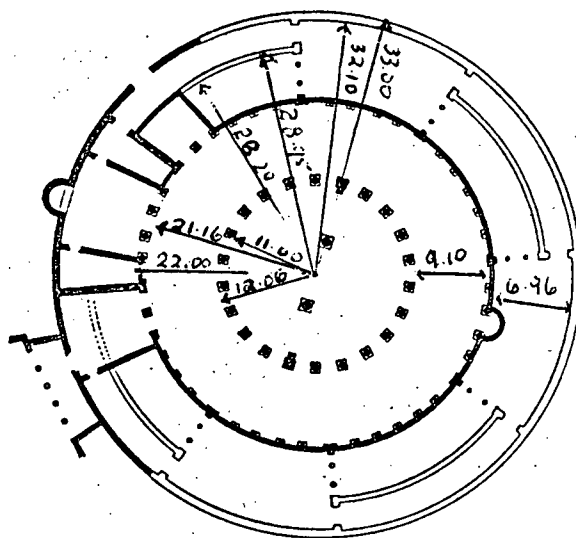
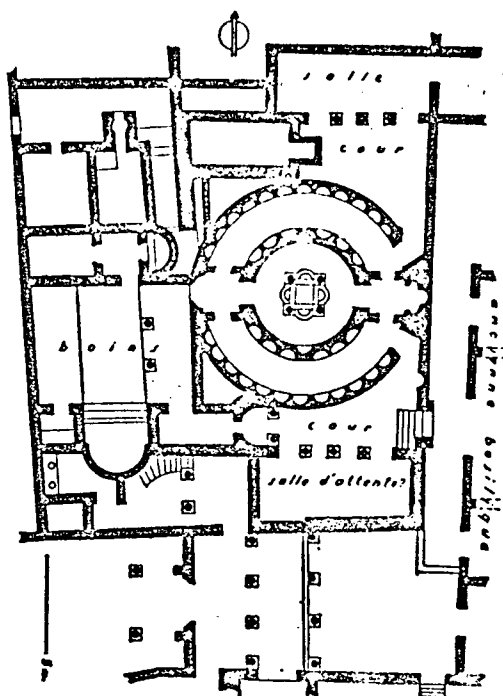


52. Plan and Illustration. Baptistry of S. Maria Maggiore. Nocera Inferiore.

b) Engraving from ca.1770.

53. Illustration and Plan. Baptistry. Djemila (Cuicul).

a) Corridor view.



53. Baptistry. Djemila  
b) Plan. Rotunda.

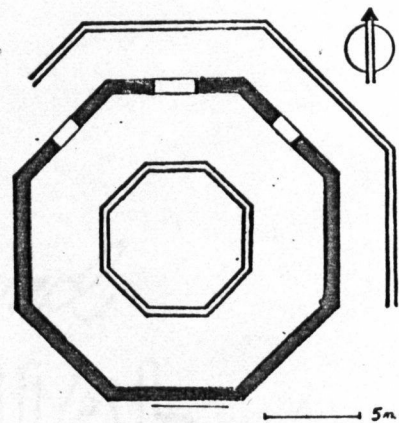
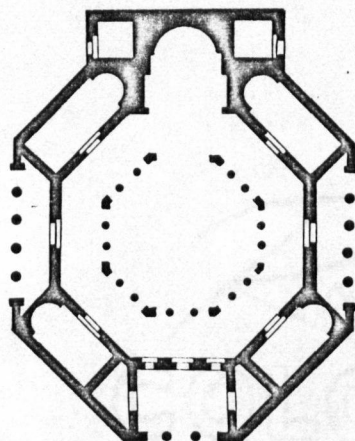
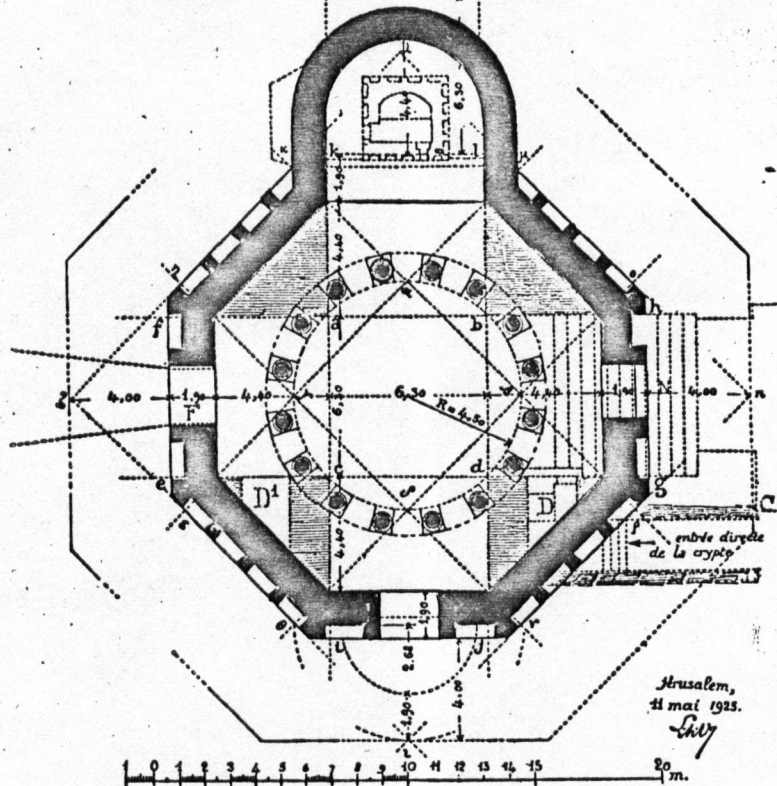
54. Plan. S. Stefano Rotondo.  
Rome.

55. Plan. Domus aurea. Antioch.

a) Mosaic of Domus aurea. Yakto.

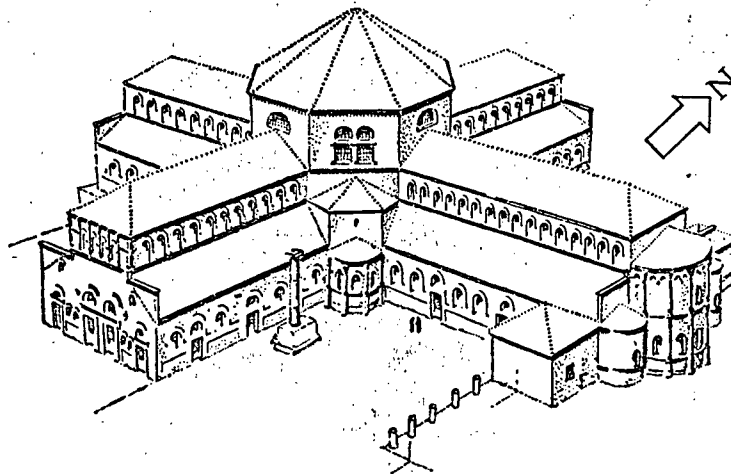
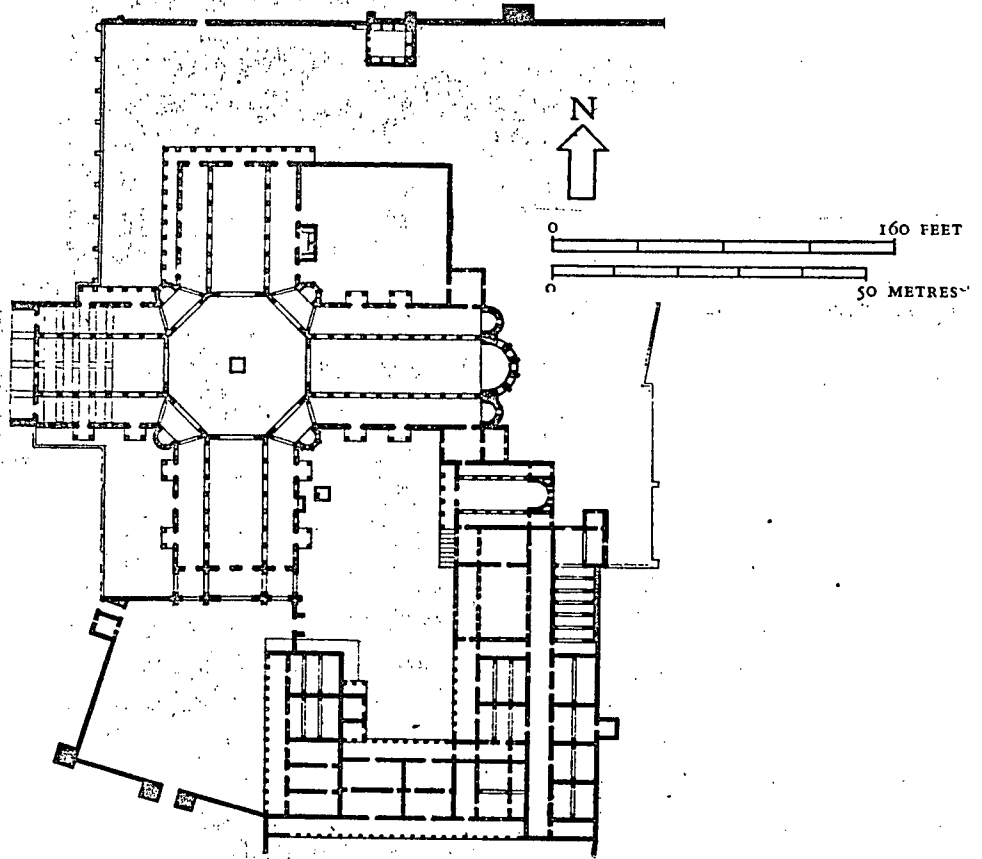
b) Plan.

TOMBEAU DE LA VIERGE : ÉGLISE SUPÉRIEURE.  
VI<sup>e</sup> SIÈCLE. PLAN RESTAURÉ.



56. Plan. Tomb of the Virgin. Valley of Josphat, Jerusalem.

57. Plan. Church of Theodokos. Garizim. 58. Plan. Octagon. Tell Hum.

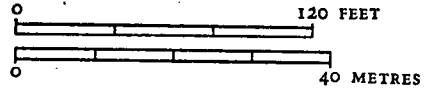
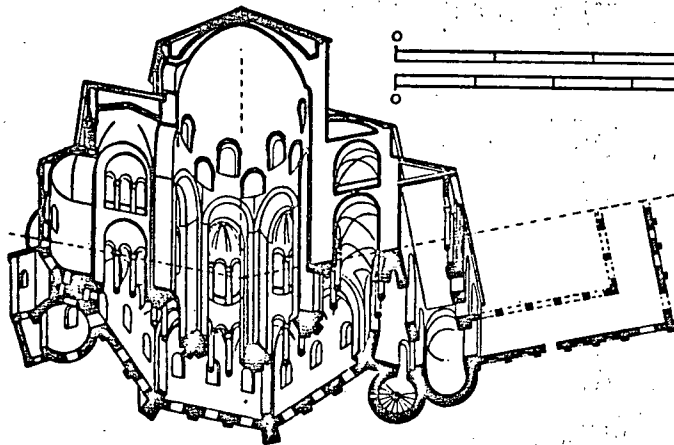
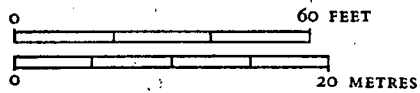
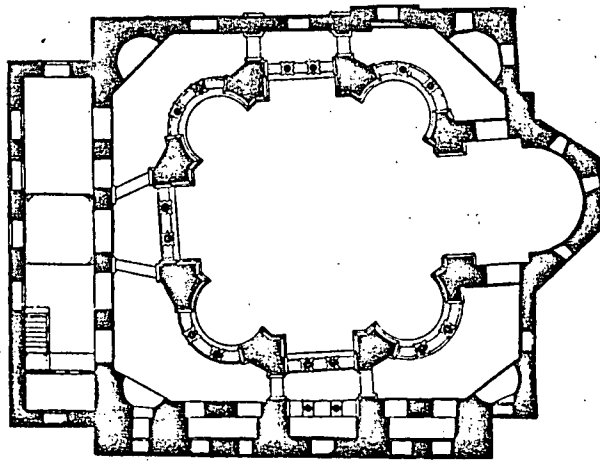


59. Plan. S. Simeon Stylites. Kal'at Sem'an.

a) Plan ca. 470.

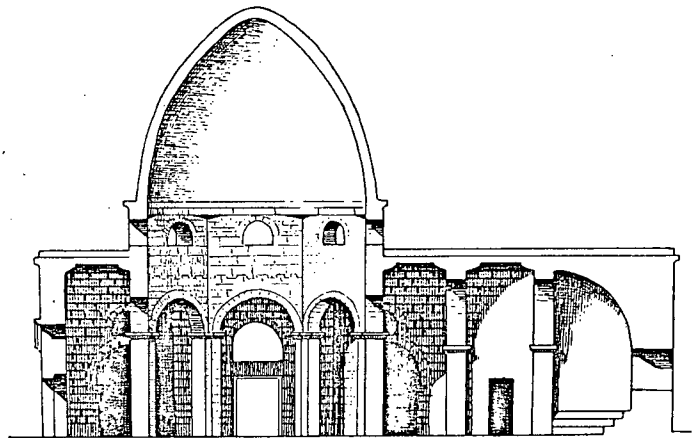
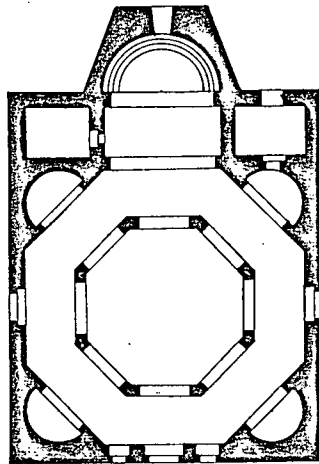
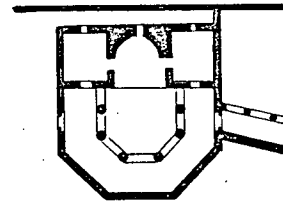
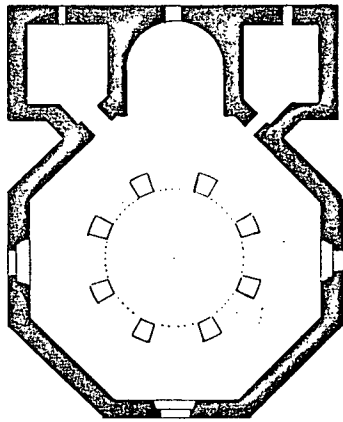
b) Reconstruction (Isometric).





60. Plan. SS. Sergius and Bacchus. Constantinople.

61. Plan (Isometric). S. Vitale. Ravenna.



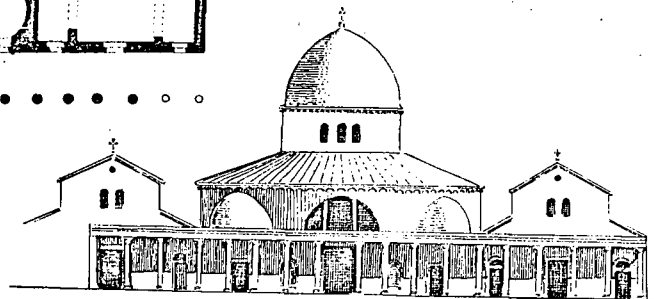
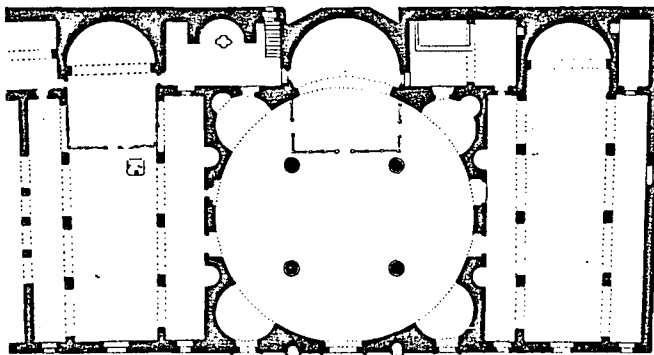
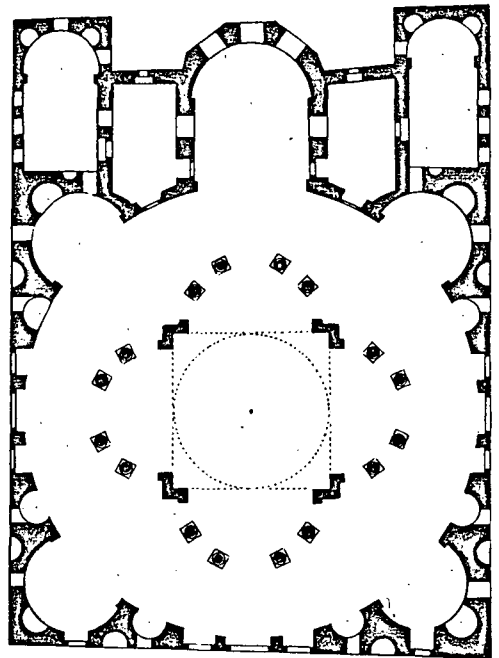
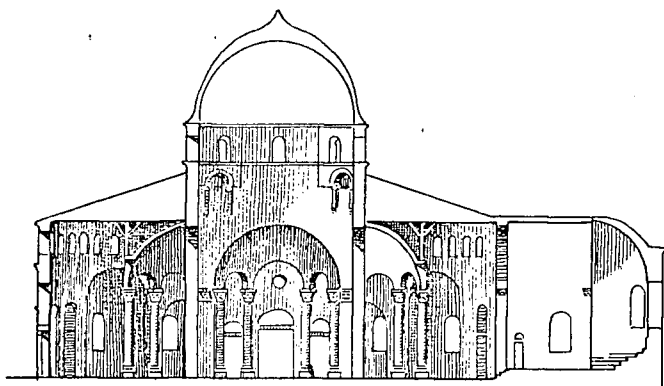
62. Plan. Mir'ayeh.

63. Plan. Midjleyya.

64. Plan. S. George. Ezra.

a) Plan.

b) Elevation.



65. Plan. Cathedral. Boara.

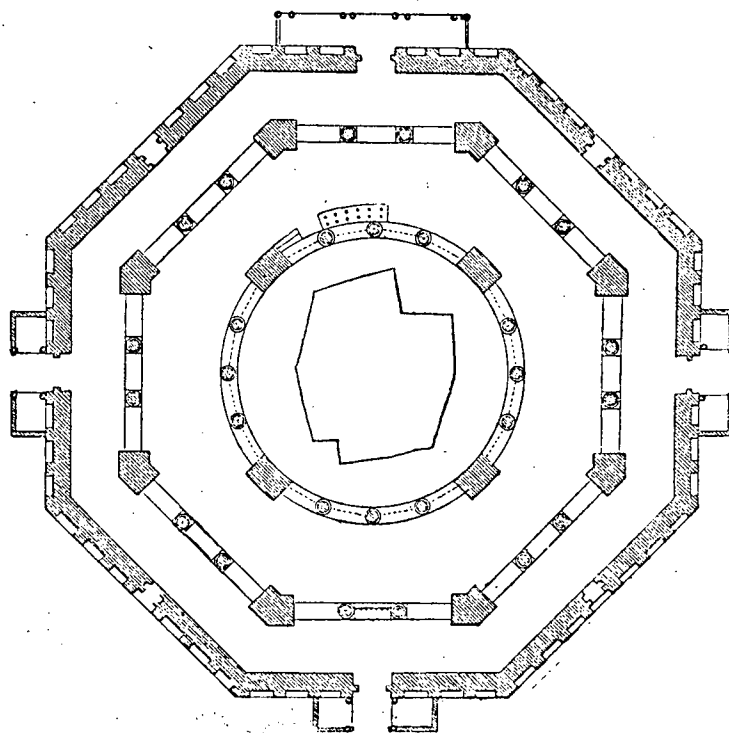
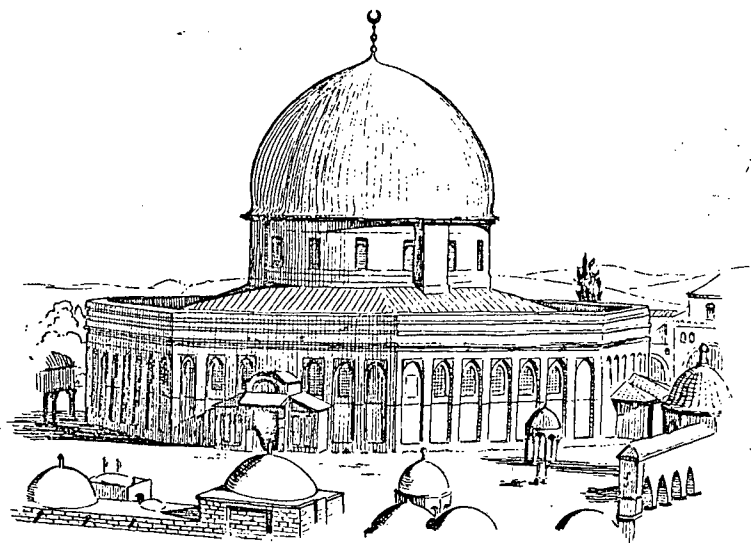
a) Elevation

b) Plan.

66. Plan. St. John the Baptist. Gerasa.

a) Plan.

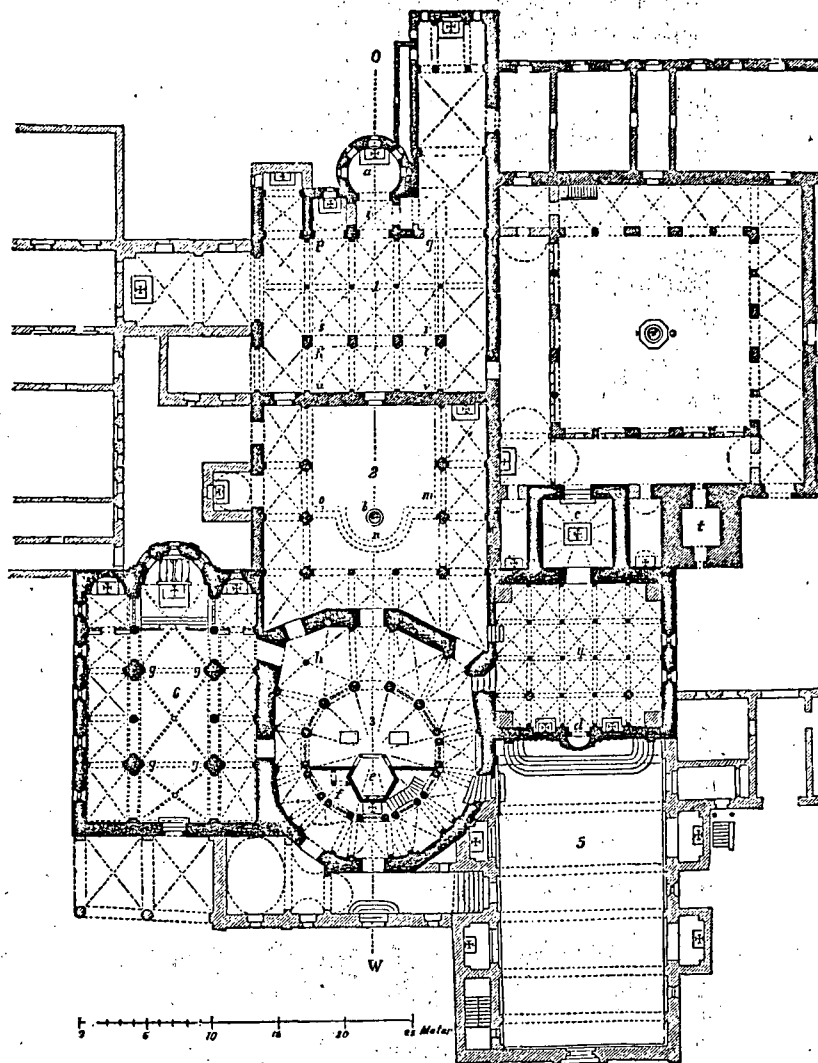
b) Elevation.



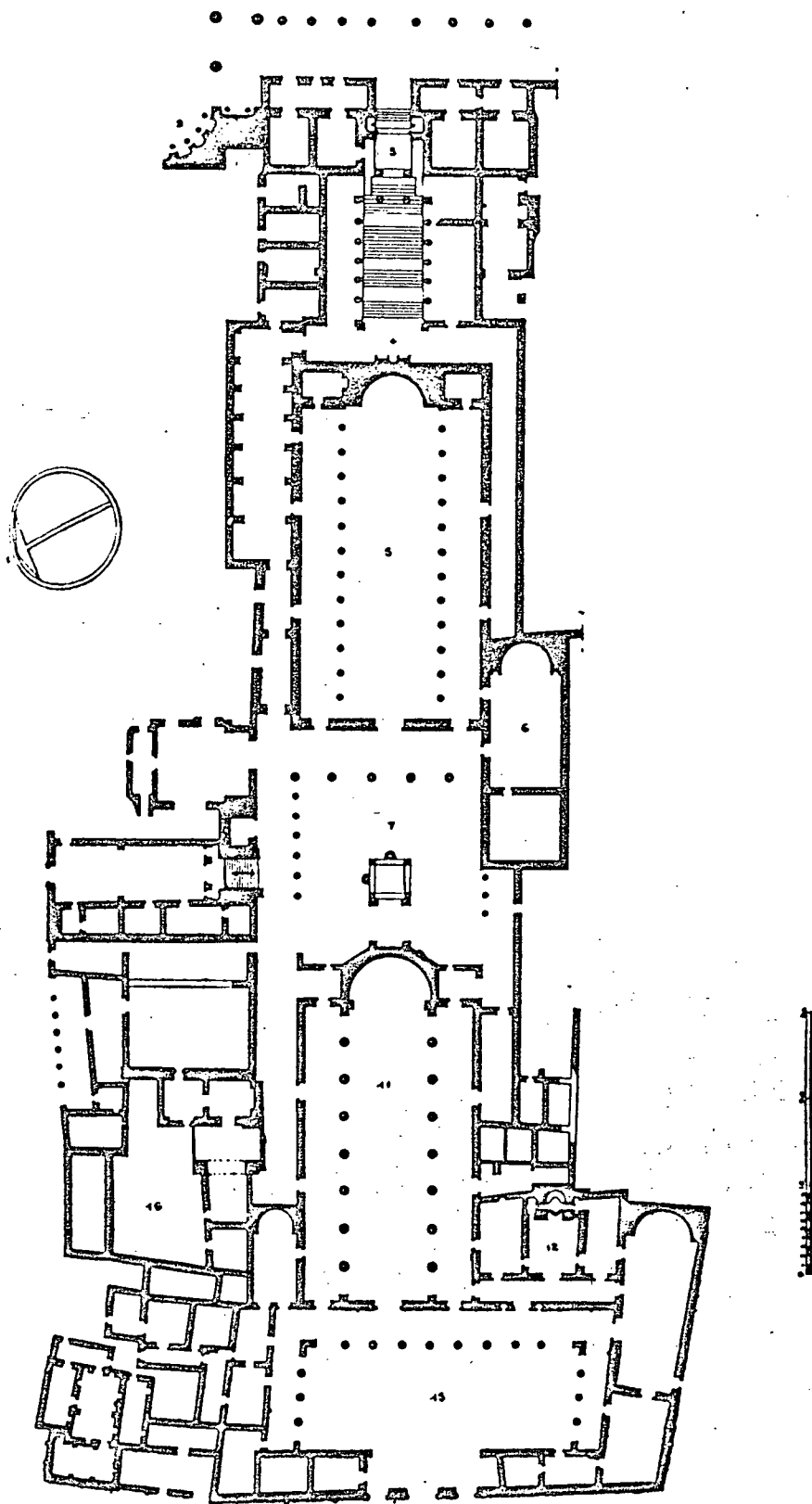
67. Illustration and Plan. Dome of the Rock. Jerusalem.

a) Exterior view

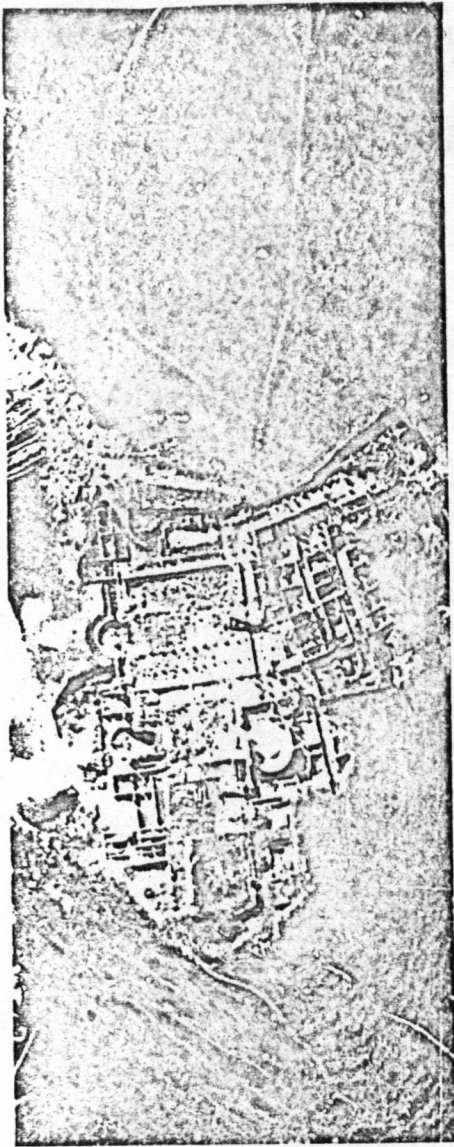
b) Plan.



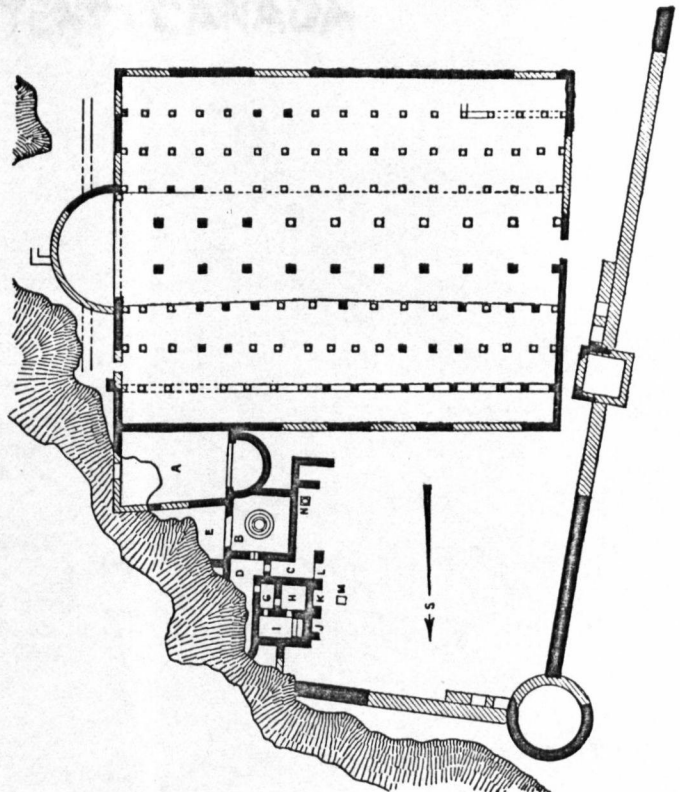
68. Plan. S. Stefano (S. Sepolcro). Bologna.



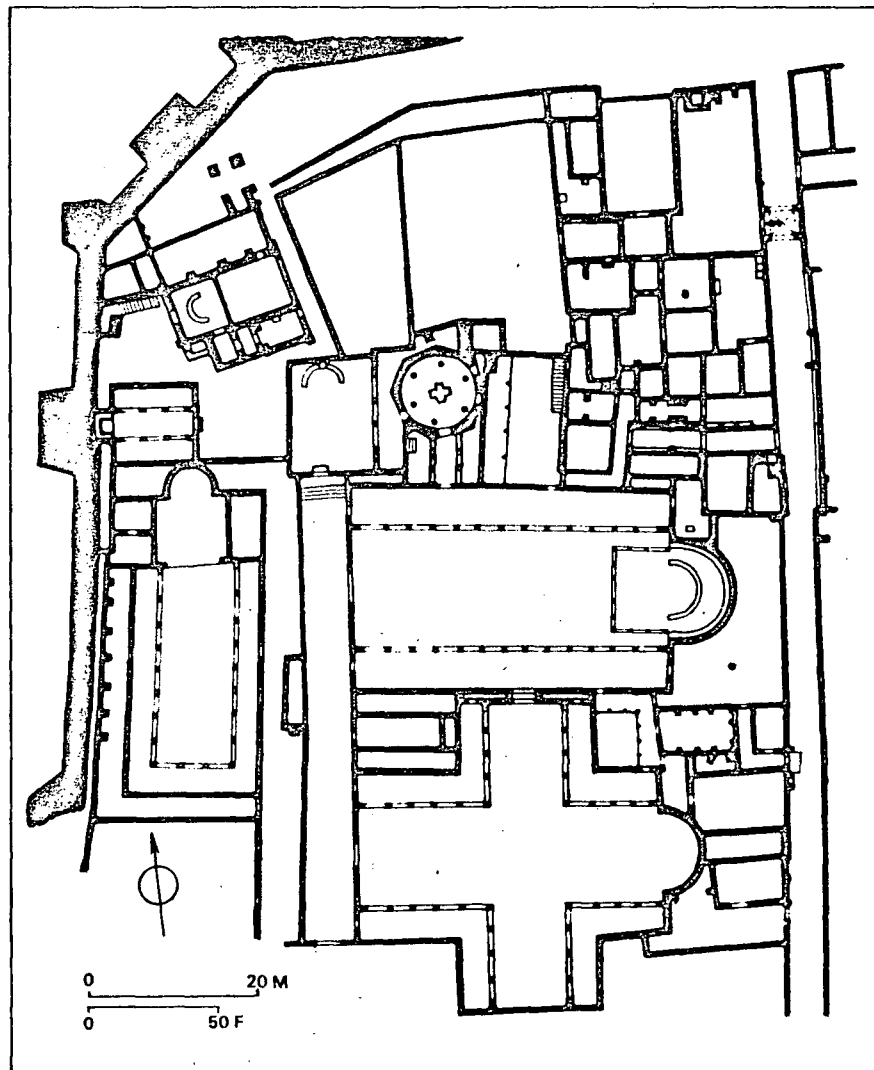
69. Plan. Church Complex. Gerasa.



70. Illustration.  
View from the air.  
Djemila.

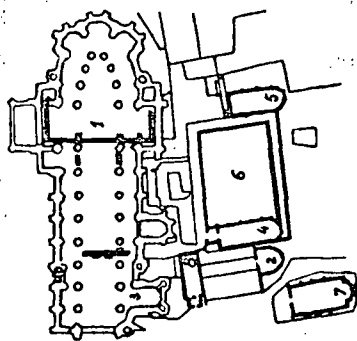


71. Plan.  
Basilica and complex.  
Tipasa.



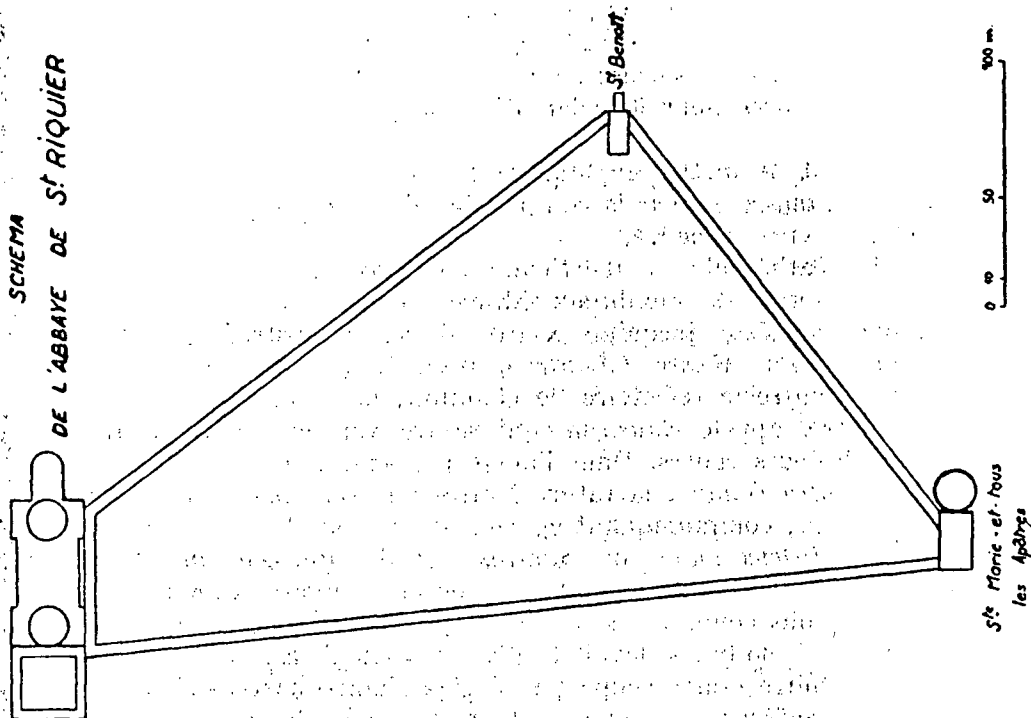
72. Plan. Cathedral complex. Salona, Dalmatia.



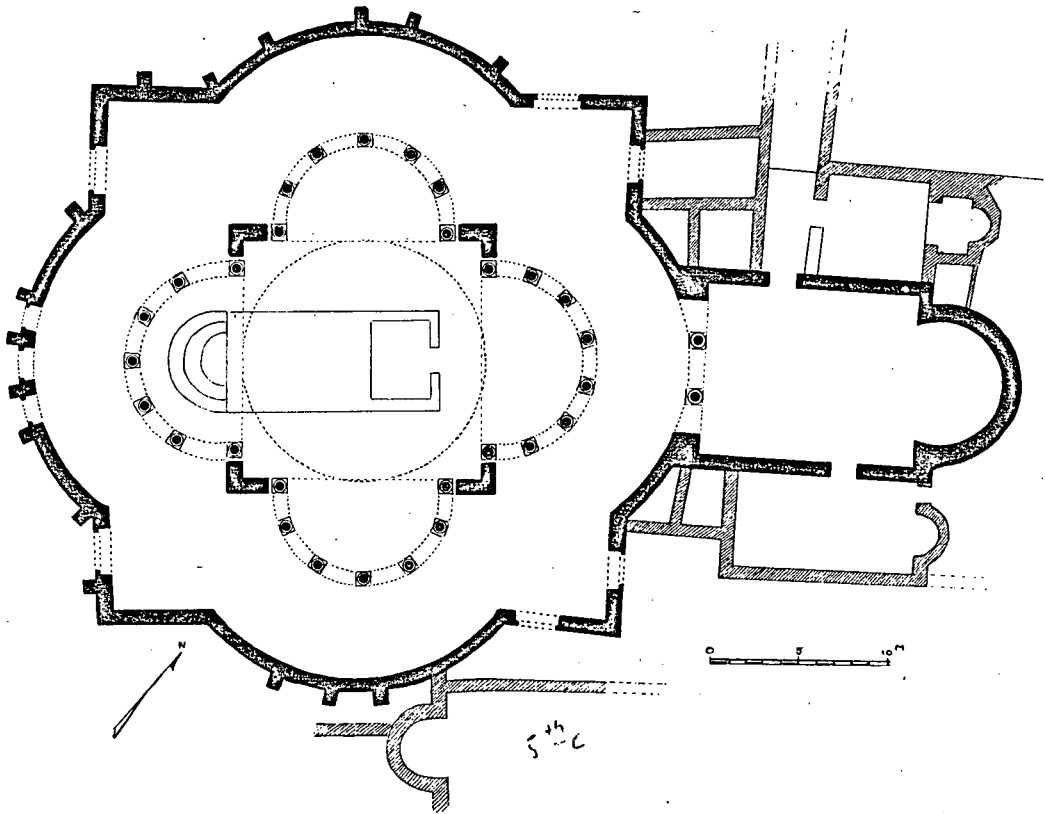
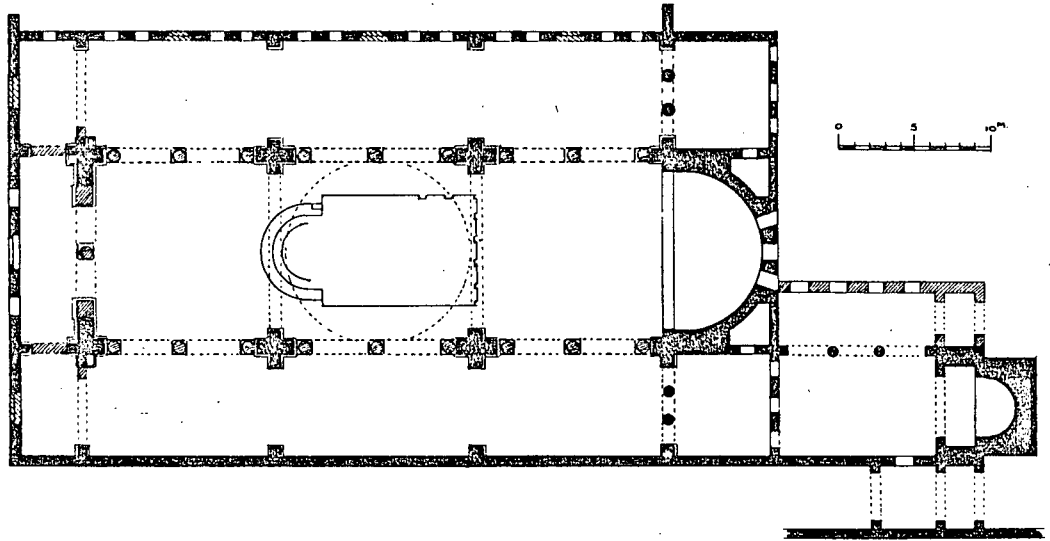


PLAN DE LA CATHEDRALE DE METZ  
DU CLOITRE ET DE SES EGLISES VOISINES  
AVANT 1754 D'APRES L'HISTOIRE DE  
METZ PAR DES RELIGIEUX BENEDICTINS  
(T. I, 1769, PL XXV).

1. Saint-Etienne.
2. Saint-Pierre-le-Majeur.
3. Sainte-Marie (Notre-Dame-la-Ronde).
4. Saint-Paul.
5. Saint-Pierre-le-Vieux.
6. Cloître.
7. Saint-Gorgon.
8. Chapelle des Lorrains (1495).

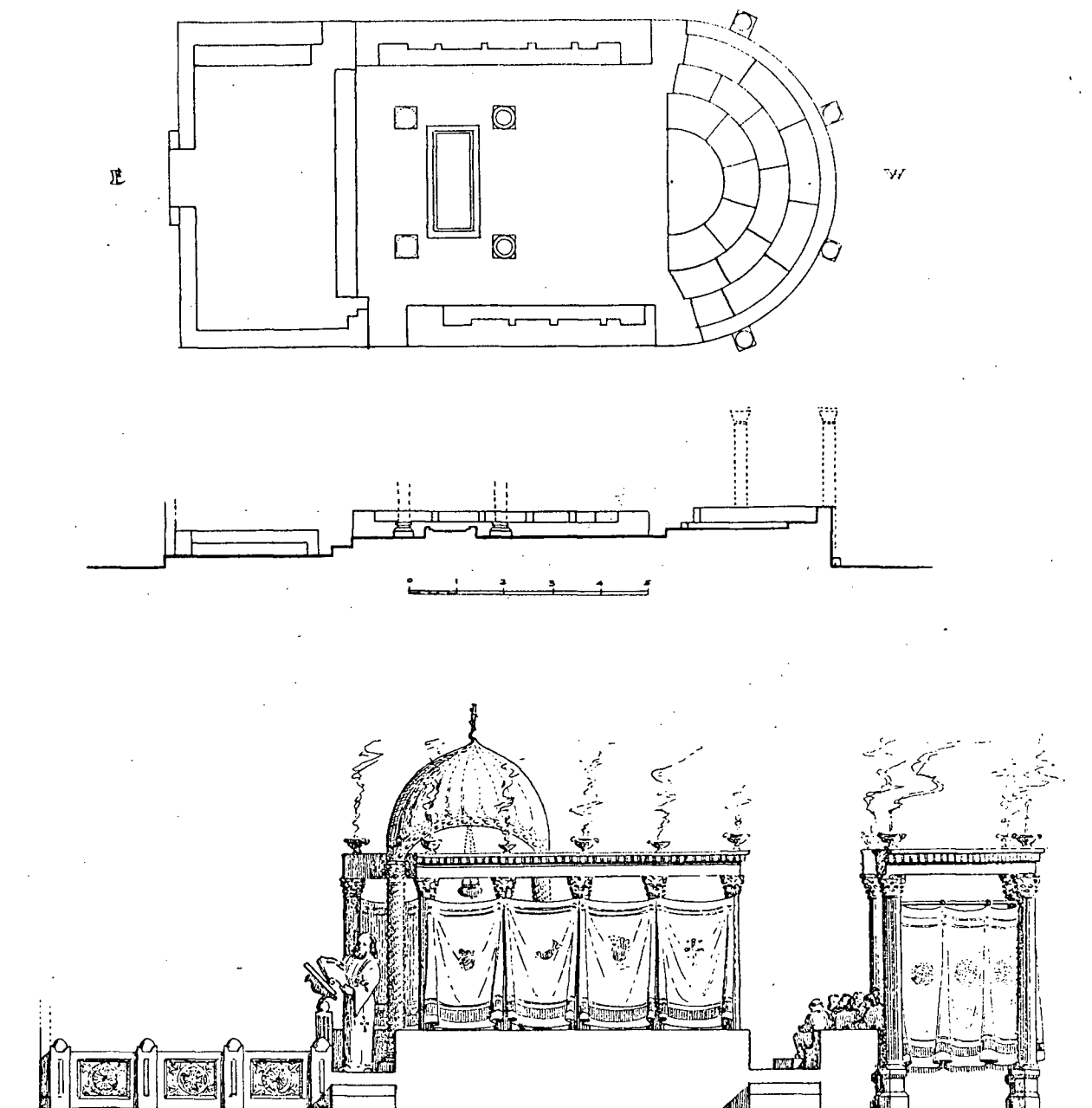


SCHEMA  
DE L'ABBAYE DE ST RIQUIER



74. Plan. S. Sergius. Rasafa.

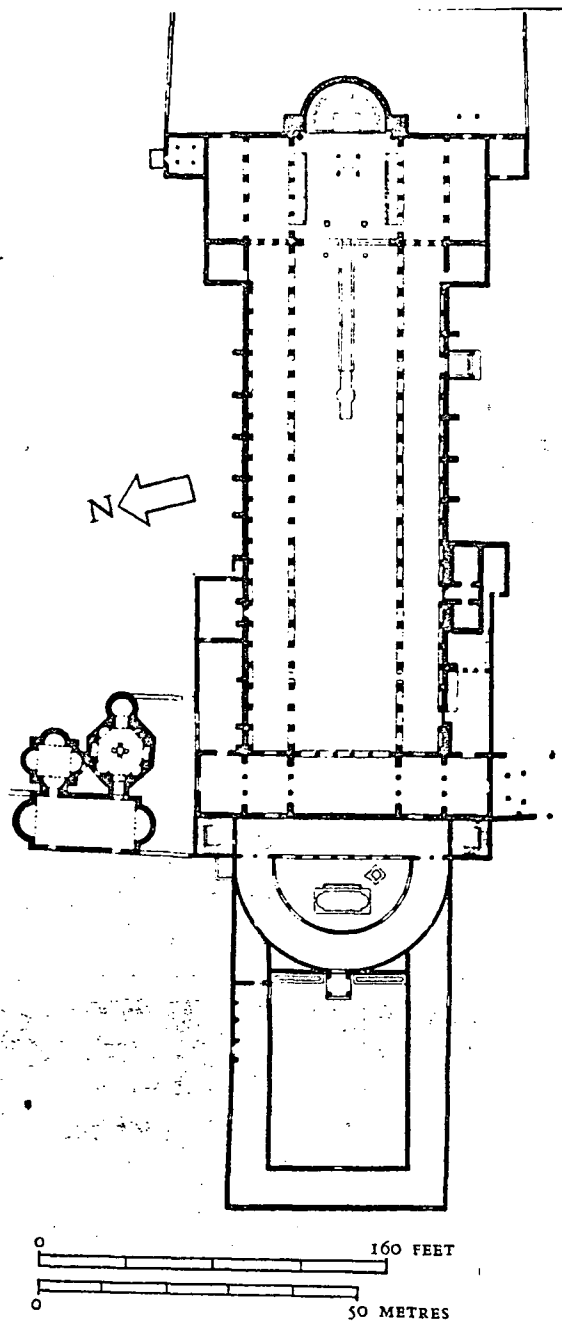
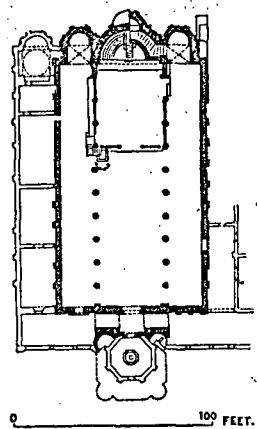
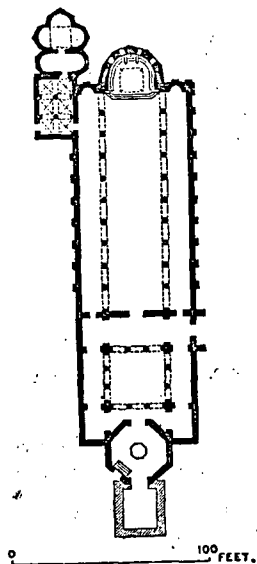
75. Plan. Martyrium. Seleucia Pieria.



76. Plan. "Place of Commemoration", S. Sergius. Rasafa.

a) Plan and elevation.

b) Reconstruction by Smith.



77. Plan. Cathedral. Parenzo (Porec).

78. Plan. Cathedral. Torcello.

79. Plan. St. Leonidas.  
Corinth-Lechaion.