The Holy Apostles.
FOR

ANASTASIOS K. ORLANDOS
PREFACE

The investigation and restoration of the Church of the Holy Apostles were undertaken by the American School of Classical Studies on the invitation of the Department of Restoration in the Archaeological Service of the Greek Government, under the Directorship of Anastasios K. Orlandos. Warmest thanks are here expressed on behalf of the School to Professor Orlandos and his associate, Eustathios Stikas, for invaluable assistance through all phases of the undertaking.

The project was made possible by generous grants from the Samuel H. Kress Foundation of New York which met all the expenses of the preliminary work, the restoration, and the preparation of the final publication. In expressing our gratitude to the Foundation it is a pleasure to recall the personal interest shown by the late Rush Kress who, with Mrs. Kress, visited Athens twice while the work was in progress. We are also indebted to Miss Mary Davis, Vice President of the Kress Foundation, for continued interest and help, and to Mrs. Murray Danforth, Mrs. Henry Sharpe, and Mrs. C. Alexander Robinson, all of Providence, Rhode Island, for their assistance in the landscaping of the area.

Many scholars visited the church during the course of the work and gave the benefit of their expert knowledge. I profited especially from discussion on the spot with George H. Forsyth, Richard Krautheimer, A. H. S. Megaw, Richard Stillwell, and the late Paul A. Underwood.

A number of colleagues in the Agora have helped in the publication of the church. Nicholas Restakis produced the prints, sometimes from negatives made under disadvantageous circumstances. Poly Demoulini smoothed the way in endless matters of long-distance collaboration in the final stages. I am indebted to Margaret Crosby for her patience in allowing an intruder to encroach on her own area of excavation, and for crowning her kindness by making possible the color plate for the frontispiece.

The restored drawings of the church (Pls. 29–37, 40) are the ornament of this book. They are the work of William B. Dinsmoor, Jr., to whom I express my gratitude and admiration for his patience and skill. Special thanks and appreciation go to Homer Thompson, classicist par excellence, on whose initiative the study and restoration of this mediaeval monument were undertaken and completed, and who could consider the vagaries of Byzantine builders with the same care that he bestows on the precision of the architects of the 5th century B.C.

To record adequately my debt to John Travlos would require an acknowledgement on every page. He has generously given his counsel and shared his knowledge, and his mastery of both the practical and the theoretical aspects of Byzantine architecture has facilitated the excavation, accomplished the restoration, and enriched the publication.

To Professor Anastasios Orlandos I offer this opusculum in token of affectionate gratitude for many kindesses over a quarter of a century, and in recognition of his incomparable contribution to the study of Byzantine architecture in Greece.

ALISON FRANTZ

Princeton, N.J.

June 20, 1971
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INTRODUCTION

The Byzantine church of the Holy Apostles (Frontispiece) is one of the two buildings in the Athenian Agora to have remained standing from the time of its construction to the present. The Temple of Hephaistos, which looks down over the Agora from Kolonos Agoraios on the west side, suffered some minor vicissitudes between the Herulian invasion of A.D. 267 and its conversion into a Christian church in the 7th century. From that time on its new status ensured the temple protection and maintenance through twelve centuries, after which it was retired from this pre-eminent position to the safe status of a national monument. The Church of the Holy Apostles, although damaged, survived occupation and invasion by Franks, Turks and Venetians largely through the accident of having been built over the solid foundations of a Nymphaeum of the 2nd century after Christ. Thus the two buildings, one pagan, the other Christian, owed their survival to the ironic and unwitting agency of the opposing religion, to which each was implacably opposed.¹

At the time of the construction of our church Athens had only recently emerged from a long period of decline and debility which began in 529 with the closing of the schools by edict of Justinian. Threat of invasion by Slavic tribes on land and Arab pirates by sea further discouraged economic growth as many of the inhabitants retreated to the safer inland areas. By the end of the 9th century, however, the Slavs had been brought under control and the recapture of Crete from the Arabs in 961 reduced the danger from that direction. With the pressures relaxed on both sides Athens gradually recovered and by the beginning of the 11th century had entered on a period of relative prosperity which was to last until the establishment of the Latin Kingdom of Constantinople after the Fourth Crusade of 1204. These two centuries saw the erection of the major Byzantine churches in Athens, of which the Holy Apostles is one of the two earliest,² and in 1018 the city received an imperial visit when Basil II, Bulgaroktonos, passed through after his successful campaign against the Bulgars to give thanks for his victory in the Church of the Virgin, once the Parthenon.³

The Church of the Holy Apostles stands over the southeast corner of the Agora at the side of an important crossroads of both classical and Byzantine times, just west of the Panathenaic Way and the Post-Herulian Wall which had protected the city in times of stress since the end of the 3rd century.


² The katholikon of the Moni Petraki is now shown to be the first; both churches are probably to be dated in the 10th century (below, p. 23).

³ Kedrenos, II, 475 (Bonn); Glykas, IV, 578–579 (Bonn); Zonaras, XVII, 9. Basil was the first emperor to visit the city since Constans II wintered there in 662/3.
INTRODUCTION

The epithet Solaki, which has long been attached to the church, derives from the quarter in which it stands.4

The earliest known description of the church is by the French architect, Albert Lenoir, who visited Greece and Constantinople in 1836 for the purpose of studying the history of Christian architecture.5 Although the major part of the church had remained standing, it had been disfigured by well intentioned efforts to preserve, enlarge, and embellish it. As long as it was surrounded by the houses that made the area a slum until 1931 the inartistic additions of the late 19th century were hardly noticeable. But when the shacks that clustered around the building were gradually cleared away it became an eyesore from all directions except the east, which had remained relatively unmolested. Furthermore, closer examination revealed that the fabric, although apparently sound on a superficial view, was actually in a precarious state due to the crumbling of the mortar. Since substantial measures of conservation were obviously essential, it seemed desirable at the same time to investigate the building thoroughly from the archaeological standpoint in order to recover the original plan, which was concealed by the late additions, to solidify whatever remained of the original building, and to restore it as far as possible to its original appearance by means of whatever new construction might be necessary.

At the beginning of work the area had already been freed of the squalid houses surrounding the church, but the paved courtyard had been left undisturbed at a level approximately one meter above the original ground level (Pl. 1,a-d). At that time the aspect of the building was that of the final remodeling and enlargement carried out in 1876-1882, as recorded in an inscription on the bell tower. The main feature of this remodeling was a large western extension forming a nave which was saddle roofed at a height greater than that of the main vaults of the original building, thus obscuring from the west almost the whole building except the dome.

Through careful demolition of the late walls and excavation inside the building it was discovered that instead of the two visible phases, the first and the last, there were four main building periods in the history of the church: the original construction in the late 10th or early 11th century; a first remodeling necessitated by damage to the west end, probably in the late 17th century; an enlargement soon after the War of Independence, between 1836 and 1854; and the more substantial renovation of 1876-1882.6

The archaeological investigation was begun on February 12, 1954, and the restoration was completed in time for the church to share in the dedication ceremonies of the Stoa of Attalos on September 3, 1956.7

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4 Mommsen, Athenae christianae, pp. 24-25. The origin of the name is uncertain, but Pittakys' conjecture (L'ancienne Athenes, p. 70) that it was derived from Σόλακος οίκον, on the ground that here was the house of the legislator, need not be regarded any more seriously than the even more enticing but equally unsubstantiated notion that the church was erected on the site of the Altar of the Twelve Gods. A more probable explanation is that of Kambouroglou (Ieropía, p. 293) that the epithet came from the name of a "great Athenian family" living in the vicinity.

5 L'architecture monastique, I, p. 252, fig. 163. The account of his trip is found in "Rapport fait par M. Albert Lenoir, architecte, sur son voyage dans le Levant pendant l'année 1836," Annales de la Societe libre des Beaux-Arts, 1837. The results of this trip formed the basis of L'architecture monastique, which was published in 1852. In that same year he issued a pamphlet, Instructions à l'usage des voyageurs en Orient: Monuments de l'ère chrétienne, in which he compared the Holy Apostles with Eusebius' description of Constantine's Golden Octagon in Antioch. For the relevance of Lenoir's description of the Holy Apostles to the history of the church, see below, pp. 32-34.

6 For the later periods see below, pp. 32-39.

7 Accounts of the work as it progressed may be found in Homer A. Thompson, "Activities in the Athenian Agora," Hesperia, XXIV, 1955, pp. 55-57; XXV, 1956, pp. 65-66; XXVI, 1957, pp. 101-103.
THE EARLIER REMAINS

Contrary to a local tradition there is no evidence of a crypt beneath the church nor of any earlier church on the same spot. All structural remains under the church were unrelated to it. The earliest of these was a short stretch of the foundation for the west wall of a building of the 5th century B.C., probably to be identified as the Mint, which was found just inside the western apse (Pls. 2, b, 28). Most of the eastern half of the church rested either on the bottom of the curved wall trench of the Nymphaeum or on the concrete bedding for its floor slabs (Pls. 2, a, 28). Immediately west of the Mint wall were some remains of a metal working establishment of the 4th century after Christ. Any earlier remains beneath the central part of the church had been either removed or concealed by the tombs which occupied that area. East of the iconostasis, however, where there were no tombs, was a stretch of a rough wall foundation made of rubble bedded in clay. It rested on the foundation of the Nymphaeum and ran southward from close to the north wall as far as the southeast column, where it was broken away. Another short bit of the same masonry led off eastward not far from the preserved south end. These foundations presumably belonged to a house of earlier Byzantine times, perhaps demolished to make room for the church (Pls. 2, c, 28).

1 Referred to by A. Xyngopoulos in EMME, p. 79, and also by Kambouroglou (Ieropla, pp. 293–294), who included a sketch of a crypt wrongly attributed to the Holy Apostles. The sketch was originally published by E. Breton, Athènes, 1868, p. 182, and correctly identified as the wellhouse of the Klepsydra, on the north slope of the Acropolis. The wellhouse was consecrated, perhaps as early as the 10th century, as the chapel of the Holy Apostles (cf. A. W. Parsons, Hesperia, XII, 1943, pp. 250–251 and fig. 21, p. 222); hence the confusion. The chapel is mentioned in EMME, p. 103 under the name "Αγιοι Απόστολοι της "στά μάρμαρα." The same sketch appears in Παλαιά Αθήνα, έκδοση Ασύλου Τέχνης, 1931, p. 65, fig. 44 as "the crypt of the church of SS. Theodore, near the Tower of the Winds."


3 Ibid., pp. 57–59.
THE FIRST PERIOD

Before the work of restoration began the church presented the appearance of a triconch, with apses on the north and south sides as well as the east. The west end was completely obscured by the long modern addition. A photograph taken by G. Lambakis ca. 1890 (Pl. 2, d), after the construction of the addition but before it had received its final coat of stucco, showed cloisonné masonry, apparently contemporary with the earliest parts of the building, extending as far west as the door in the north wall. This suggested a triconch with a nave, after the "Hagioritic" plan, so called because of its frequency in the churches of Mt. Athos. ¹ Those who accepted this plan as the original excluded the possibility of a fourth apse.

But according to an old tradition the church had originally been a baptistery² and therefore a tetraconch and, in fact, an apse of a remarkable shape was shown by Lenoir (Fig. 10).³ Choisy, also, described the church as having had four apses, one of which had been destroyed.⁴ In this view the prolongation of the walls westward was regarded as a later addition, even though this would leave unexplained the lack of symmetry between the obtuse angles of the prothesis and diaconicon and the right angled western angle chambers. Our first objective, then, was to confirm or disprove one or the other of these theories by removing all of the modern masonry and by excavation inside the church, and to discover where and how the building had originally terminated at the west.

THE PLAN

The problem of the ground plan was quickly solved by excavation (Pls. 28, 29), which proved both of the opposing schools of thought right in some degree. Not far below the paving were uncovered the foundations of a fourth apse corresponding to the three already visible, but provided with a doorway (Pl. 3, a). At the same time it was clear that the western apse had always been surrounded by a narthex, the extent of which was fixed by the foundation for a crosswall connecting the north and south walls, which came to light 2.65 m. west of the west face of the apse (Pl. 3, b). Two courses of masonry were preserved above the ground level of the apse; they were of cloisonné, but simpler and rougher than that used elsewhere in the building. The foundations were well bonded into the adjacent walls (Pl.3,c).

When the walls of the modern addition were stripped of all later masonry the original construction was found to reach as far as the doorways in the north and south walls (Pl. 4, a). At this point the north wall showed a finished end face, exactly at the line of the newly discovered crosswall (Pl. 4, b). The foundations of all the walls run continuously without any break or change in construction. Piers were built into both ends of each of the walls of the western apse, with responds well integrated into the masonry of the three walls of the narthex, showing that the narthex was vaulted in three bays at the west and two, flanking the

¹ EMME, I, p. 77.
³ L'architecture, I, p. 252, fig. 163, whence our Fig. 10.
⁴ Auguste Choisy, Histoire de l'architecture, II, 1899, p. 33. Choisy had already published the building in some detail in his L'Art de bâtir chez les byzantins, pp. 132-133, which appeared in 1883, just one year after the completion of the final restoration. Given even an average lapse of time between study and publication, he must have seen the church well before its latest phase, when any traces of an apse were concealed by the new marble pavement.
ape, at the east (Pls. 28, 29). The north wall was preserved over its entire length up to the height where the slope of the gable began. The south wall remained for its whole length only in the lower course, descending in a jagged line from its full height at the east end to only four courses at the west (Pl. 4,c).

The plan is thus revealed as basically a cross-in-square with a dome on pendentives carried on arches supported by four free-standing columns. It is, however, elaborated into a tetraconch by the addition of a three-sided apse, similar to that at the east end, on each of the other three sides. The plan is unusual in that the apse penetrated into the narthex, which enclosed its lower part completely, leaving a trapezoidal space on each side of the apse. Thus, only the eastern elements of the building, the three apses to east, north and south, and the prothesis and diaconicon, with their walls forming obtuse angles, stood out on the ground plan. The west apse and the western angle chambers were visible only above the roof of the narthex. The angle chambers at this end were right-angled, to take account of the prolongation of their walls into those of the narthex, and their west walls were pierced by arched doorways to provide circulation between the side bays of the narthex and the main body of the church.

In the interior all apses and angle chambers are semicircular, and a semicircular niche, subsequently blocked up, was sunk into the opposing wall of each of the western angle chambers. Entrance to the church was provided by a large central doorway in the west wall of the narthex, flanked by two narrower openings. The original step block was found in place in front of the middle door (Pl. 3,d).

The building is not quite regular. No two walls are exactly parallel and the angles of the outer walls of all the apses differ in some degree. The asymmetry is less pronounced in the interior, where the major apses and also the angle chambers are all a little more than a semicircle (ca. 200°).

The architect of the Holy Apostles was able to use the eastward rising ground line to good effect by introducing a two-step change of level within the church, at the entrance to the western apse, in addition to those dictated by common practice, i.e., from the outside into the narthex and again, via the solea, into the sanctuary. The climactic effect is now very apparent, after restoration, as the visitor walks into the narthex from outdoors, and again as he mounts the two intermediate steps into the church proper. A comparable effect was achieved also on the outside, where the lower level was used to diminish the apparent height of the narthex in relation to the western apse and thus allow the latter to be seen to full advantage.

THE FOUNDATIONS

The foundations consist of rubble masonry set in firm lime mortar (Pl. 5,a) and vary in depth from 0.75 to 1.10 m., the highest point being at the east. This is accounted for by the gradually rising ground level in this direction which prevailed at the time of the construction of the church and was adhered to in the junction of the foundations with the cloisonné masonry, whereas the bottom line was dictated by the level surfaces of the ancient monuments on which the building was bedded (Pls. 32, 33). The foundations were laid exactly on the lines to be followed by the walls, with both inner and outer surfaces already clearly defined, and with no extraneous connecting lines in the interior. The eastern half of the building, as noted above, was built over the foundations of the Nymphaeum, on the underpinning of its massive semicircular wall and on the heavy concrete bedding for its marble floor slabs, which had been plundered in antiquity (Pl. 2,a). This circumstance may account in part for the better ability of this section of the building to withstand the damage which resulted in the destruction of the west end.

THE MASONRY

In the church proper the walls of the original building were substantially intact with only minor repairs and alterations, chiefly on the south side. The masonry throughout the church is a carefully laid cloi-
sonné consisting of poros limestone, chiefly the characteristic Megarian stone which contains a large quantity of sea shells. The courses are separated by a double (very rarely single) layer of bricks set in a firm white mortar made of river sand and lime, with a considerable amount of grog made of ground up tile. The exposed surfaces of the mortar have weathered to a pinkish brown, but it was obvious during the repair work that where it was protected it was a startling white, broken up only by bits of grog. It was obvious that this was used deliberately to give a strong contrast with the stone and brick. The same effect may be seen in churches where some of the masonry has been protected by later construction, e.g. at the southwest corner of the Theotokos at Hosios Loukas, where the Katholikon abutted against the wall and covered its surface.\(^6\)

Above eye level almost all of the vertical joints are filled with bricks set in ornamental patterns (Fig. 1; Pls. 8, 9, d).\(^7\) In the lower courses the simplest cloisonné masonry was used.

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**Fig. 1. Masonry on East Side of East Apse**

Large ancient blocks were set on end at all key points of the building, in the lowest course: at the outer corners of all the apses and the narthex, and flanking the three doorways in the west wall. In addition, two others were placed at irregular intervals in the south wall of the narthex and at least one, and probably two, in the north (Pls. 4, c, 32, 33).\(^8\) Behind the cloisonné facing the thickness of the wall was filled out with a core of rubble masonry, giving the walls a total thickness of 0.70–0.80 m.

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\(^{6}\) Stikas, H.L., p. 146, fig. 63, p. 151, fig. 68.

\(^{7}\) Below, pp. 7, 22.

\(^{8}\) For the significance of these blocks in the dating of the church, see below, p. 25.
THE ORNAMENTAL BRICKWORK, THE COLUMNS

THE ORNAMENTAL BRICKWORK

Dentil Courses

Five horizontal brick sawtooth friezes, enclosed above and below by a single course of bricks, break the monotony of the wall faces (Pls. 1, a, c, d, 8). The uppermost, which also forms a cornice of three successively projecting rows under the eaves of the major apses, is separated from the next below by one course of cloisonné masonry. From there downward a double course intervenes. In addition, another dentil cornice runs under the roof of the highest part of the building, i.e. the four barrel vaults with their gables. The lowest frieze, which is at the level of the springing of the arches of the windows of the east apse, interrupts its course to frame the brick arches of all the windows (Fig. 4). It also apparently continued on the same horizontal line to crown the walls of the narthex at the level of the beginning of the gable.

Brick Patterns

The patterns in the vertical joints of the cloisonné masonry are of varying degrees of complexity (Fig. 2; Pl. 9, d). Only two can be considered to have a Christological significance: No. 22, with alpha and omega, and No. 23, a leaved cross with IC XC in the upper angles. A few are simple geometric designs; the rest are imitation Kufic or Kufesque, all purely decorative. An interesting example of how the architect handed on his ideas to the mason is provided by a half brick with a Kufesque design drawn in black on its uneven surface (Pl. 5, b). It was found in the rubble core of the south wall of the south apse during conservation operations, having apparently been discarded after serving its purpose as a model and picked up on the spot to be used as building material. It cannot be matched exactly on the church but Megaw's No. 6 (Fig. 2) is a close approximation.

The Columns

The dome was supported by arches carried on four free-standing columns, 4.07 m. high, three of which were still standing; all had been taken from ancient buildings. All four shafts were monolithic, of blue-gray Hymettian marble, with ancient capitals. Those at the northwest and southeast were late Corinthian in type (Pl. 5, d); the capital of the southwest column was of the so-called Tower of the Winds type, with lotus leaves springing from behind a single row of acanthus (Pl. 5, c). The northeast column had been replaced in some intermediate period by a makeshift built up of twenty-one drums of poros limestone ranging in height from 0.10 to 0.20 m., threaded on an upright iron rod. The drums were secured by melted lead poured around the rod. Uneven beds of mortar were laid between the drums and some effort was made to even up the surfaces by driving nails into the edges of the joints and even occasionally inserting whole horseshoes. An inverted Ionic base served as a capital (Pl. 5, f). In the final period of the church all the columns were painted black and the capitals were painted in bright colors trimmed with gilt.

The two western columns rested, below floor level, on companion ancient marble bases, ca. 0.75 m. square and ca. 0.50 m. high, with plain mouldings at top and bottom. The top surface of each was chipped

9 The brick patterns of the Holy Apostles form an important part of Megaw’s analytical study of brick patterns in general (Chronology, pp. 102-115). Special thanks are here expressed to Mr. Megaw for permission to reproduce his drawings, which include all the decorative elements found on the church; our Figure 2 was prepared by Helen Besi from Mr. Megaw’s drawings.
10 I have adopted George Miles’ term ‘Kufesque’ for the “meaningless simulation of ornamental Kufic” (D.O.P., XVIII, 1964, p. 20).
11 For the bearing of the ornamental brickwork on the date of the church, see below, pp. 24–26.
12 Inv. A 2523.
13 It is clear that the brick is to be regarded as a convenient piece of scratch paper rather than as the first stage of a design to be completed by the champlevé process (Chronology, pp. 105–106). This latter possibility is ruled out by the uneven surface and coarse consistency of the brick and, even more, by the absence of the champlevé technique elsewhere in the church.
away to a depth of 0.05–0.06 m., except where the column rested, probably to receive the marble floor of the latest period. That they were originally used in the Nymphaeum is suggested by the presence of a roughly cut channel, semicircular in section, ca. 0.04 m. wide and 0.02 m. deep, running vertically down the face of the southwest base. It shows some signs of water wear and might possibly have been made to receive a lead pipe (Pl. 5,e).

Fig. 2. Kufesque Designs in Masonry
The foundations of the northeast column consisted of a large block of marble resting on several smaller blocks of conglomerate, all bonded with strong Theran cement. The southeast column rested on an inverted Ionic base.\textsuperscript{14} The foundations of all four columns were laid directly on the concrete bedding of the Nymphaeum.

\textbf{THE DOME AND VAULTS}

The dome is of the traditional Attic type: octagonal, with an arched cornice pushing well up above the drum into the roof. The cornice is of Aeginetan poros limestone with a broad, shallow, concave moulding. Attached marble shafts at the eight corners are surmounted by plain flaring capitals (Pl. 6, a). The masonry is cloisonné with single bricks in both horizontal and vertical joints. The appearance of the dome had been greatly marred in the course of time by changes made in the windows. Originally eight in number, four had been blocked up in the third or fourth phase of the church, leaving open only those at the cardinal points of the compass. In the second period all eight had been remodeled by reducing their height and topping them with a low, flat arch (Pl. 6, b, c).\textsuperscript{15}

The removal of the stucco which covered all the masonry of the dome revealed the tops of the original window frames still in place. They were in varying states of preservation and in all cases the mortar had crumbled beyond all usefulness, but the scheme could be recovered with certainty (Figs. 3, B, 4, d; Pl. 6, b, c).

\textsuperscript{14} Inv. A 4203. This might also be thought to be a late replacement, since the top of the base as found bore the impression of the column in a bedding of Theran cement, but the contractor who carried out the restoration, Stratos Phergadiotes, reports having seen the same cement under the church of the Katapoliani on Paros.

\textsuperscript{15} For the sequence, see below, pp. 34–35.
THE FIRST PERIOD

This consisted of a two-light window, each light arched separately in brick and the whole enclosed under another arch which was separated from the cornice by a single row of bricks. The arches for the lights sprang from a common point in the middle, where they were supported by a single mullion. Only two mullions were discovered in place, one in the south, the other in the southeast window. Probably only the latter is original; it is a slim stele-like rectangle with its top matching the long narrow resting surface of the capital which it supports (Fig. 3, B; Pl. 6, c). The south window is now divided by an octagonal column which in no way fits its capital. The two surviving capitals are decorated with an incised rosette at each end.

The decorative scheme in the tympanum of the arches (Fig. 4, d; Pl. 8) was composed of a fairly large block of poros limestone, roughly triangular, in the center, its lower edge chiseled to a point to fit in the spandrel between the two small arches. The remaining space was filled with a simple pattern of brickwork laid in a heavy bedding of mortar. Even where the original scheme had completely disappeared on the outside face, as in the south window, the arches were found to be preserved halfway through the thickness of the wall, including even the facing of the soffit, which was a coating of creamy white plaster, 0.01–0.02 m. thick, with much straw (Pl. 6, b, c).

The pendentives and the ring of masonry on which the drum of the dome rested were of bricks laid in mortar up to almost twice their own thickness (Pl. 6, d). The drum, with a height of 1.60 m. and an inner diameter of 3.00 m., and the dome itself were of well cut blocks of soft poros limestone set in regular courses in thin beds of mortar (Pl. 6, e). Barrel vaults on the main axes led to the four apses and were of similar construction to that of the dome (Pl. 7, a). The four angle chambers were covered with semi-domes, the remaining triangular spaces being covered with brick vaults (Pl. 7, c, d). The lower parts of the semi-domes were of rubble; the upper were of bricks set in thick beds of mortar of less regular construction than the adjacent triangles (Pl. 7, b). The trapezoidal spaces flanking the western apse were groin-vaulted but the three bays on the west side of the narthex were probably covered with saucer domes carried on arches which bridged the gaps between the piers in the walls and the corners of the apse.16

THE ROOF

The roofs of all parts of the church except the narthex were well preserved (Pls. 8, 40). Broad pan tiles, 0.51 X 0.38 m., with semicircular cover tiles were laid in a bed of mortar over a packing largely composed of pumice (Pl. 9, a, b). The existing tiles appear to belong to the first period of the church or, if not, to a time when tiles of the same size and shape were in use, as their dimensions exactly match the impressions in the mortar bedding. The tiles projected 0.13 m. beyond the two dentil courses crowning the wall which in turn projected a total of 0.08 m. beyond the wall, and with these make an attractive cornice. Junctions between the different roof levels were achieved by a single course of cloisonné masonry with Kufesque elements (Pl. 9, c). The lowest of the dentil courses surrounding the church, which corresponds to the preserved top of the north wall of the narthex, determines the height of the narthex before the start of the gable. Between this level and the third dentil course original cloisonné masonry was discovered under modern plaster on each side of the arch of the western apse, the lower course marking the point at which the western angle chambers and apse became visible from the outside (Pl. 14, a, b).

THE WINDOWS

The windows in the main body of the church are of the “arcade” type,17 i.e. each light is arched separately in brick and all lights are of equal height. The window of the east apse is triple; those in the north

16 Below, p. 20.
17 This is the name given to the type by Megaw (Chronology, pp. 120ff., q.v. for the most useful discussion of the development of window design in Byzantine architecture).
and south apses and the dome are double (Figs. 3, 4; Pl. 9, c).\(^\text{18}\) The mullions are elongated in section, on flaring bases and with flaring capitals decorated with incised crosses or rosettes.

There is insufficient evidence for an accurate restoration of the windows of the narthex. The north wall had been pulled out at that point for the construction of an arcosolium (Pl. 10, b), leaving only a small bit

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18 See also below, pp. 24–25.
THE FIRST PERIOD

of the crown of a brick arch with a span wide enough to enclose a two-light window. The corresponding part of the south window is missing. Failing more precise evidence the windows have been restored on the analogy of those in the dome (Pl. 9, f).

THE DOORS

The doors were framed by moulded jambs and lintels of Pentelic marble, of which many fragments were found in and about the church. A lintel, found intact, built into the later masonry, corresponded in size to the indications of openings in the foundations and could be assigned to one of the smaller doorways (Pl. 15, f). Several fragments joined to make one complete jamb, chiselled at the upper end to fit the cuttings in the underside of the lintel. It was thus possible to establish the height of the small doorways at 1.875 m. and their width as 0.655 m. (Fig. 5). The width of the central doorway was fixed by the threshold at 1.30 m. In the absence of definite evidence its height was restored by analogy at 2.10 m.

Fig. 5. Door Frame of Period I

THE PAVING

The original paving was preserved in a number of places along the walls, especially in the east apse, where it was 0.19 m. below the level of the modern floor in the east apse, and in the northwest angle chamber, where it had escaped the later tomb diggers. The floor consisted of flags of irregular size and shape,
THE WALL DECORATION, THE ARCOSOLIUM

Both gray stone and white marble, jointed with gray lime mortar (Pl. 10,a). The actual paving was confined to the church proper, but numerous indications of the floor level of the narthex established the fact that there was a difference of 0.44 m. between the two parts of the church. There was no trace of a mortar bed for the floor. The remaining slabs had probably been relaid at a later time.

In the loose earth directly beneath the dome were found several fragments of opus sectile, forming parts of rosettes such as are used in decorative panels normally found in this position. Considering their finding place, it seems certain that these pieces must have formed part of the original omphalos of the church, and they have, therefore, been incorporated into the restored design (Pl. 10,c).

THE WALL DECORATION

Nothing remained to show the character of the wall decoration of the first period. The possibility of mosaics anywhere in the church is apparently ruled out by the total absence of remains of the iron pins customarily used to secure the backing of a mosaic to the wall itself.

A few scraps of fresco were found in the east apse, in an earlier layer than the remains of the painting of Period II. It is unlikely that these were part of the original decoration of the church although they might still date from within the first period. In all probability the church was covered from the beginning with paintings which would have followed the usual iconographic scheme and which would have been constantly either freshened up or completely renewed as they crumbled away.

THE ARCOSOLIUM

At some time after the construction of the church but still within its first period, the north end of the narthex was extended to include an arcosolium. This was accomplished by removing the lower part of the wall between the two westernmost piers and rebuilding it 1.60 m. beyond its original face (Pl. 10,b). The gap was spanned by a brick arch a few centimeters lower than that of the original window, leaving only the crown of the latter visible (Pl. 32). The masonry was cloisonné similar to, but not identical with, that of the original building. It was accented by large ancient blocks standing on end, similar to those used for the same purpose elsewhere in the church: one at each of the outer corners and one in the middle of the north side. The east and west walls were built against the narthex with no bonding. Moreover, the masonry of the narthex gives no indication of having been laid with an opening in mind; it has the appearance rather of having been carelessly torn out. The opening was blocked only in the final phase, after the destruction of the upper part of the arcosolium, in order to make a window to fit the new scheme of fenestration.

It is clear that the arcosolium is an afterthought, but how much later is an open question. The ground level around it had not risen appreciably and its masonry puts it well within the Byzantine period. Arcosolia in churches were normally used only for founders or important ecclesiastical personages. The fact that the arcosolium of the Holy Apostles was added after, but not long after, the erection of the church

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19 Above, p. 5.
20 E.g. at Hosios Meletios, ABME, V, 1939-40, pp. 67-68 and figs. 19, 20.
21 Below p. 41.
22 It might be argued that any pins might have been removed in later times in the course of applying successive layers of plaster as the paintings were periodically renewed, but the late Paul A. Underwood, whose experience in this field was extensive, examined the walls with care and concluded that their original surfaces were sufficiently well preserved to justify the assumption that no such pins ever existed.

A handful of mosaic tesserae, found wrapped in a bit of paper in the blocking of the doorway in the north apse (below, p. 39) could hardly have been a survival from the earliest period of the Holy Apostles since they were put there two centuries after any mosaics in the church must have been destroyed. They are undoubtedly a relic from a crumbling mosaic from some other church which a pious monk pressed into the hands of a traveler in return for a few lepta.
THE FIRST PERIOD

permits speculation that it was made for the founder, whose name was perhaps Solakis, thus accounting for the persistence of the name as an epithet for the church.

An elaborately worked sarcophagus front of the Middle Byzantine period (Fig. 6; Pl. 10, e) which was found not far from the church has now been placed in the position of the arcosolium. It is well known that the Byzantine marbles of Athens traveled far afield from their places of origin in Turkish and modern times as they were used as building material in fortifications and houses, so that attribution to specific buildings on the basis of their finding place is highly unsafe. But the good state of preservation for so fragile a piece as our sarcophagus front (its overall dimensions are $2.24 \times 0.72$ m., with a thickness of only 0.10 m.) suggests that it had not been moved far from its original position. We are probably therefore justified in attributing it to the Holy Apostles.

THE ICONOSTASIS

Part of the foundation for the iconostasis was found between the two east columns. It consisted of a limestone block on a rubble bedding, on which was a narrower marble block, badly broken. Many fragments of all the members of the iconostasis itself: columns, epistyle blocks, and closure panels, were found built into the masonry of the two latest periods, in the loose fill in and around the church and in the building material taken from the demolition of modern houses in the vicinity. The screen apparently survived up to Period III, when the fragments first appear in the masonry of the church. The largest piece, the greater part of the closure panel (A; Pl. 11, e), was built into the northwest corner of the foundations of Period IV together with a piece of the epistyle (E; Pl. 11, c, d); a piece of the epistyle (D, 1) was built into the later phase of the northwest pier (Period III) and a large joining piece was used as part of the cover of Tomb 2 (D, 3). Another came from debris inside the church (D, 2) and a small fragment of the braided cross (D, 4) was found in the earth just behind the iconostasis where it fell as it splintered off when the rest was dismantled (Pl. 11, a). The largest piece of one of the columns (B) was built into the foundations of the modern iconostasis (Pl. 11, f) while a smaller piece of a column (C) came from the demolition of neighboring houses. Both pieces of the epistyle (Pl. 11, a–d) were made from an Ionic architrave of the Roman period, at least 2.20 m. long. The three fasciae were visible from inside the sanctuary. All of the pieces have been built into the restored iconostasis (Fig. 7; Pl. 26).

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23 Inv. S 511.
24 For other arcosolia, cf. the Monastery of the Αγίων Πάντων (‘Ομολογητών), EMME, pp. 128–129 and figs. 161–163, including sarcophagus front; also the monastery church of Hosios Meletios on Mt. Kithairon, of the last quarter of the 11th or the beginning of the 12th century, ABME, V, 1939–40, p. 59, fig. 12 and p. 62. For the date of the church, ibid., p. 65. The carving on our sarcophagus front bears a fairly close resemblance, although not in all details, to some of the panels from the iconostasis at Hosios Meletios (ibid., p. 105, fig. 52).
FRAGMENTS OF THE ICONOSTASIS

A. Closure Panel.

(A 4201)

PH. 0.67; restored H. 0.835; W. 0.89; T. 0.09–0.10. Built into the northwest corner of the foundations of Period IV.

The bottom (or top?) edge and two opposite corners are missing. Mended from three pieces. The whole surface much worn, as if from use as a paving block.

Within a rectangular panel, a large central rhomboid enclosing a circle, with circles in the corners of the rectangle, all interlaced. In the central circle, a Maltese cross. A broad flat band borders the panel at top and right; a narrow band at left. Back very roughly dressed with a rectangular cutting in the middle. Pentelic marble.

For the general scheme, cf. the iconostasis of the Katholikon at Hosios Loukas (Pl. 12, d); also a panel from near the Bema church at Corinth (Scranton, Corinth, XVI, pl. 19, 10) and another in the Byzantine Museum, No. 104 (Pl. 11, j).
THE FIRST PERIOD

B. Column.
(A 2561) Pl. 11,f.

PH. 0.55; diam. 0.19. Built into the foundations of the modern iconostasis. The piece includes part of the octagonal shaft and parts of two sides of its square capital. Capital decorated on one side with a rosette in a lyre-shaped frame; on the adjacent side with a rosette in a circle with four (?) loops forming corners.

C. Column.
(A 2562) Not illustrated.

PH. 0.27; PW. 0.10; PT. 0.19. From stray marbles in the vicinity of the church. Possibly from the iconostasis. Similar to the preceding but with only one side (as preserved) decorated with a rosette in a looped circle; adjacent side plain with an attachment hole.

D. Epistyle Block.
(A 2492 a) Pl. 11,a,b.

PL. 0.80; H. 0.235; T. 0.295 (bottom); 0.37 (top). Seven joining fragments, built into late masonry of the church, in debris inside or found among stray marbles in the vicinity. Both ends missing. Cut from an ancient Ionic architrave. Front and bottom form an obtuse angle. On front, a central (?) braided cross, projecting slightly beyond the face, flanked by interlacing double rectangles, each containing a rosette in a double circle. A triangular leaf in each corner. On underside, to left, a rectangular resting surface, followed by three interlaced circles enclosing a Maltese cross (center) and two plain rosettes. On the back, the fasciae of the original architrave. For the braided cross relief cf. the cross which originally stood on the dome of the Theotokos at Hosios Loukas (Stikas, H.L., p. 212, fig. 105).

E. Epistyle Block.
(A 2492 b) Pl. 11,c,d.

PL. 1.07; H. 0.235; T.O.295 (bottom); 0.37 (top). Found together with the closure slab A. Both ends and the top of the front face broken away. From the same Ionic architrave as D. On front, between two convex-concave rosette bosses are three interlaced circles, the central enclosing a Maltese cross, the others a palmette within a palmette. To the right of the right hand boss is the start of a palmette-filled cross. On underside, to left, a rectangular resting surface, followed by three interlaced circles enclosing a Maltese cross (center) and two plain rosettes. On the back, the fasciae of the original architrave. The scheme is closely paralleled on two fragments of an epistyle which undoubtedly belong together and probably join, one in the Byzantine Museum, No. 197, the other photographed in the Asklepieion in 1961 (Pl. 11,g,h).

The general scheme of the decoration of the iconostasis is typical of the Middle Byzantine period. Panels with a combination of interlaced rectangle, rhomboid, and circles have been found in many places and of varying degrees of complexity, but these variations are apparently without regional significance and they have not been sufficiently studied to afford precise chronological criteria. In the simpler forms the rhomboid is connected to the enclosing rectangular frame only at its corners, where it meets the frame at mid point in each of the four sides. The circles filling the corners are linked to the rhomboid but not to the frame, and the center of the rhomboid is occupied by an unconnected rosette, as, e.g., in a panel from the Moni Petraki in Athens (Pl. 11,i) and some of the panels in the windows and gallery of the

26 Now in the Byzantine Museum, No. 166. Cf. Sotiriou, Petraki, pl. 49. I am indebted to Mme. Sotiriou and to M. Michaelides for permission to include this and other architectural marbles in the Byzantine Museum.
Katholikon at Hosios Loukas. In the Holy Apostles panel each of the corner circles is linked to two adjacent sides of the frame but not to the rhomboid, which is connected instead with the central circle as well as with the rectangular frame. A still more complex form is represented by another panel in the Byzantine Museum (No. 104) in which all the elements are connected with each other (Pl. 11,j). Rosettes of assorted types are the normal filling ornament for the circles. Pinwheels, as in the panel from the Moni Petraki, seem to be confined to the earlier examples. The Maltese cross in the center of the Holy Apostles panel is rare, but it occurs in a very similar panel in the ambon of the basilica in Kalambaka27 and a related variant in the lunette over the west door of the Little Metropolis in Athens.

Fragments of a number of panels of this type came to light during excavations made prior to rebuilding the refectory at Hosios Loukas,28 which Stikas attributes to an earlier building on the spot, either the Theotokos or the small oratory chapel said to have been built by the followers of the saint soon after his death. So far as can be made out in their fragmentary condition their interlace is relatively simple and they differ from those under discussion in that they are bordered with wide bands of Kufesque ornament in which Stikas sees a close resemblance to the brick friezes surrounding the Theotokos.29

THE FONT

A marble font, now in the Byzantine Museum, was found in the courtyard of the church and can almost certainly be attributed to the first period of the church.30 It is decorated with an interlaced cross (Pl. 10,d).

27 EEBΣ, VI, 1929, p. 303, fig. 7. G. Sotiriou dates the church in the 11th century.
28 Stikas, H.L., pp. 17ff. and figs. 9, 10.
29 Cf. a similar panel with a Kufesque band in the Byzantine Museum, No. 323, reproduced in part in H.L., p. 22, fig. 15.
30 EMME, I, p. 78, fig. 74, and p. 79.
THE ARCHITECTURAL TYPE

The church of the Holy Apostles is the work of some unknown architect who combined the elements of the centralized plan, a tetraconch and a cross-in-square to create a unique building which stands far above all the other extant churches of Athens in imagination and sophistication. His achievement lies not only in combining the cross-in-square with the tetraconch but also in finding a happy solution to the problem of adding a narthex to this type.

A series of churches in Greece demonstrates how architects were grappling with the problem of combining a triconch or, more rarely, a tetraconch with a narthex so that the result would be satisfactory from a practical point of view and at the same time aesthetically pleasing. In none of the known churches except the Holy Apostles was the result entirely successful. The simplest solution is represented by numerous diminutive three-apsed churches found all over Greece, especially in the open country. In these there is usually no narthex in the sense of an articulated part of the building; the west vault is merely prolonged slightly to give a little additional space, e.g. in the small church of St. Nicholas in Methana (Fig. 8,a). A more complex example, but still without any change in the outline of the ground plan, is to be found in the Panagia Koumbelidiki in Kastoria (Fig. 8,c), in which the westward extension is set off by being covered with a transverse barrel vault and is separated from the rest of the church by a wall with a wide doorway.

The extra space achieved by this device was necessarily small, being limited to the width of the vaults of the church; further prolongation would have turned the narthex into a nave, which was liturgically undesirable at this time. The next step, illustrated in the larger church of St. Nicholas at Platani, near Patras, was to attach a much broader narthex, allowing it to project at both ends (Fig. 8,b). That this is apparently the only surviving example of this type may be coincidence or it may have been quite reasonably regarded as a failure, for the ends were virtually dead spaces and the clumsy appearance from the outside would not have encouraged emulation.

A more successful approach was taken by the architect of the now ruined church of St. Demetrios at Varasova, on the Gulf of Corinth, a much larger building (ca. 16.50 × 11 m.; Fig. 8,d). As at St. Nicholas at Platani, a narthex was added against the western vault, but here its connection was made less tenuous by continuing the north and south walls eastward to merge with those of the north and south apses, thus avoiding the creation of awkward open spaces such as are found at Platani. The western vault of the church proper was longer than that at Platani and the larger spaces enclosed to either side were made into small rectangular chambers entered from the narthex, each having a small semicircular niche on the east side. The niches looked into the north and south apses through small arched windows.

1 Combinations of diverse plans in a single building are not uncommon. For a variety of examples cf. Ebersolt, Chap. X. Ebersolt cites the Holy Apostles but of course without the then unknown complications of the west end.
2 This series forms part of Orlandos' illuminating study of the triconch in Greece in ABME, I, 1935, pp. 105-120, which includes a section on the problem of the narthex. Professor Orlandos has kindly given permission to include his plans, some of which are reproduced here in Fig. 8. No claims are made for the actual dates of the individual buildings mentioned here, but they represent a logical sequence.
3 ABME, I, 1935, p. 113, fig. 7.
4 ABME, IV, 1938, p. 127, fig. 88, reproduced as our Fig. 8,c but without the later addition.
5 Many of the churches of this type have been so enlarged, but only in the 17th and 18th centuries.
6 ABME, I, 1935, pp. 112, 116 and fig. 12.
7 Ibid., pp. 105ff.
Fig. 8. Churches in Greece.  a. Methana, St. Nicholas.  b. Platani, St. Nicholas.  c. Kastoria, Koumbelidiki.
h. Gavrolimni, Panaxiotissa.  i. Arta, St. Nicholas 'Po∫α∫.  (1:200)
Although the general effect of the church at Varasova was more harmonious than that offered by St. Nicholas, circulation between the narthex and the rest of the church was improved not at all, for there was no communication between the small lateral chambers, which perhaps served as chapels, and the church proper.8

An intermediate stage between Varasova and the Holy Apostles may be recognized in the church of the Dormition of the Virgin, popularly known as the Palaiopanagia, at Manolada, in Elis (Fig. 8,f; Pl. 12, a,b,c).9 The basis of this church is not a triconch or a tetraconch but a free cross, with arms of equal length, the western arm being surrounded by a pi-shaped narthex. The two bays flanking the western arm of the cross communicate with the church proper by doorways, this finally providing free access from the narthex to the main body of the church.10

Although the plan of the Palaiopanagia represents a transition between the types of churches discussed above, the actual building must be regarded as a late provincial example. The large blocks forming crosses in the masonry of the west façade, for example, are characteristic of the second half of the 11th and the 12th century, and the fact that they are outlined in brick makes the later part of this period more likely (Pl. 12,a).11 In fact, Bouras finds so many similarities in building details between Manolada and the Nauplia church, built in 1143, that he believes the two buildings to be closely contemporary.12

For the arrangement of the interior, Manolada offers the closest parallel to the Holy Apostles yet discovered. The general effect, however, is much less pleasing. The parallel walls of the western arm of the cross present an uncompromising interruption of the interior space and create a tunnel-like impression (Pl. 12,c), whereas in the Holy Apostles the diagonal walls of the western apse lead naturally into the angle chambers. The heavy walls supporting the dome at Manolada add to the impression of confinement in contrast to one of lightness and open space given by the free standing columns of the Athenian church, an impression which is heightened by the successive changes in level.13

The narthex of the Palaiopanagia provided the analogy for the restoration of the Holy Apostles, with saucer domes over the three western bays. The irregular shape of the eastern bays in the Athenian building called, however, for a groin vault and, in fact, a very small bit of the start of a groin vault was found in the northeast corner of the northern bay.

The similarity between the two churches is confined to the west end. The heavy proportions of Manolada, with its forthright arrangement of the dome supported by long vaults (Pl. 12,b),14 have little in common with the harmonious “combinations of equilibrium, ingenious almost to the point of subtility” which evoked the admiration of Choisy15 in the Holy Apostles. The obtuse angles of all the apses and of the prothesis and diaconicon soften the articulation, and the dentil courses which run around the building unify all the elements.

8 The breaks in the north and south walls of the western vault shown on the plan apparently leave open the possibility of doorways into this part of the church, but Orlandos specifically excluded this (ibid., p. 115).
9 This interesting building was first noticed by G. Lambakis, who published brief accounts in ΔΧΕ, ser. 1, II, 1894, p. 14, and again in his Mémoire, p. 19. A corrected plan was published by Orlandos in ABME, I, 1935, p. 118, fig. 15, in the article under discussion (here reproduced as Fig. 8,f). Most recently the church has received the full publication it deserves from Ch. Bouras in Επιστημονική Επιστημή Σχετική τού Αρχιτεκτονική της Ακρόπολιος Πανόλαδου, Ιφισωτός, 1969, pp. 233-266, with earlier bibliography.
10 Bouras (p. 235) regards these doorways as “probably” a late modification, but apparently on no other grounds than that the walls are represented as unbroken on Lambakis’ plan and that G. Papandreou, in Η Ἡμέρα δε του μνημονίου των ιδρυμάτων, Athens, 1924, p. 203, stated that they had recently been opened. But Lambakis’ plan is inaccurate in many respects and Bouras regarded Papandreou’s description in general as “unimportant.” To the observer on the spot, the doorways show no sign of not being contemporary with the original building.
11 E.g., the Kapnikarea and Daphni in the 11th century, the Hagia Moni at Nauplia and the churches at Chonika and Amphissa in the 12th century (Megaw, Chronology, pp. 101-102).
12 Bouras, Manolada, p. 258. For the date of the Hagia Moni, cf. Megaw, Chronology, p. 94.
13 Above, p. 5.
14 Bouras notes (Manolada, pp. 236-237) that the architect of the Palaiopanagia was not insensitive to the heavy effect created by intrusion of the massive walls into the interior space and that he alleviated it by cutting away the corners where they met under the dome to give them a concave surface. The same device was used in the church of H. Photini in Thebes (now ruined), a church of related plan which Orlandos dates in the second half of the 10th century (ABME, V, 1939–40, pp. 145–146).
15 Choisy, L’art de bâtir chez les byzantins, pp. 132–133.
THE ARCHITECTURAL TYPE

Varasova and Manolada are essentially hybrids, with the eastern half constructed on the plan of a free cross but the western, because of the enclosing narthex, becoming virtually a cross-in-square. The three projecting apses of the Holy Apostles, with the fourth surrounded by the narthex, bring the Athenian church into this general category, with the difference that the angle chambers and the free-standing columns ease the transition between the two architectural types and open up the interior space. Furthermore, in the Holy Apostles, since the western apse rose high above the narthex, it is only in the ground plan that the cross-in-square is evident, whereas in the two provincial churches the western arm of the cross is completely swallowed up by the narthex and is invisible from the outside.

The essence of the plan of the Holy Apostles is the simple Constantinopolitan cross-in-square in which all arms of the cross are of equal length, the angle chambers consequently square and the dome supported by four free-standing columns. The variation consisted in the addition of apses to all four arms of the cross, thereby opening up space in all directions and emphasizing the centralized character of the plan. The apses were added directly to the main vaults without the intermediate vault which in the composite form makes a transition and provides extra space for the sanctuary. The square angle chambers which are normally covered with either groin vaults or saucer domes are here roofed in the combination of half domes and triangular vaults noted above, a variation dictated by the semicircular interior of these chambers.

The Constantinopolitan cross-in-square is rare in Greece before the end of the 11th century, in contrast with the provincial type in which the angle chambers are barrel-vaulted; the result is that in the provincial churches symmetry is less of a factor since these spaces could be, and often were, elongated at will. The evolution of the Greek type can be traced in actual monuments from its origin in the basilica through Skripou, the first surviving church in Greece to presage the cross-in-square, and the transitional churches of the 10th century, down to the fully developed building of the 11th-12th centuries. Illustrative of the 10th century churches is the Panagia Panaxiotissa at Gavrolimni, on a rugged mountain slope behind Naupaktos (Fig. 8, h; Pl. 13, b). Although a developed cross-in-square, it has some of the archaic features of Skripou, e.g., the semicircular apse and the short stretches of wall which will later become free-standing supports. The Constantinopolitan type, on the other hand, having no roots in Greece, makes its first appearance already fully developed and so appears as an intrusion and a conscious importation. Its sudden appearance can hardly be due to pure chance. It seems more likely that some external circumstance arose to open this new channel in the current of Byzantine architecture in Greece, and it is possible that the answer lies in the Monastery of Hosios Loukas (Pl. 13, c, d).

Without doubt the most important building of the Constantinopolitan style ever built in Greece is the Church of the Theotokos at Hosios Loukas. The recently completed work of conservation and

16 For the relation of the Holy Apostles to the tetraconch, cf. also Orlando in ABME, XI, 1969, pp. 81, 82. An earlier but related example of the type may be seen in the 10th century church of H. Andreas τόν Πεντεστυχόν in Salonica (ABME, VII, 1951, pp. 146-167), a tetraconch in which a prothesis and diaconicon, added for liturgical rather than architectural reasons, are almost completely sealed off from the main body of the church. The four free-standing columns are so close to the inner corners that the building can hardly be classified as a cross-in-square at all, and domes cover all arms of the cross. Orlando describes the church as being a mixture of Early Christian and proto-Byzantine elements.

17 For the relation of the Holy Apostles to the tetraconch, cf. also Orlando in ABME, XI, 1969, pp. 81, 82. An earlier but related example of the type may be seen in the 10th century church of H. Andreas τόν Πεντεστυχόν in Salonica (ABME, VII, 1951, pp. 146-167), a tetraconch in which a prothesis and diaconicon, added for liturgical rather than architectural reasons, are almost completely sealed off from the main body of the church. The four free-standing columns are so close to the inner corners that the building can hardly be classified as a cross-in-square at all, and domes cover all arms of the cross. Orlando describes the church as being a mixture of Early Christian and proto-Byzantine elements.

18 The differentiation of the Constantinopolitan and Greek types of cross-in-square was first enunciated by Millet in his L'ecole grecque dans l'architecture byzantine, 1916. This pioneer work formed the basis for the study of Byzantine architecture in Greece. More detailed examination and in many cases removal of later accretions have made possible greater precision in applying his principles, which by now have become almost axiomatic. At the same time, they have made the distinctions less clear-cut. The subject has been more fully explored and elaborated by Orlando, as summarized in ABME, V, 1939-40, pp. 3-10. For recent discussions cf. Sotiriou, Petraki, pp. 101-129 and Krautheimer, pp. 275-280. The basic differences are seen as going back to the ultimate derivation of the two types: the Greek from the Eastern basilica and the Constantinopolitan from the cruciform church brought to perfection in the capital. Only the elements directly applicable to the present subject are touched on here.


21 The cruciform church of the Katapoliani on Paros is no more native to Greece than are the later churches of Constantinopolitan origin.

22 The churches of Salonica and Mt. Athos are excluded from consideration as being in the sphere of the capital, not of the provinces (cf. Orlando, ABME, V, 1939-40, p. 6, note i).
restoration of the monastery brought to light incontrovertible evidence that the Theotokos, contrary to recently prevailing opinion, was built before the Katholikon and not a quarter of a century after.23 With the relative chronology of the two churches now established, it would be useful to be able to fix their actual dates precisely, but at least the limits have been narrowed considerably. Stikas rejects the more generally accepted dating of the Katholikon in the first quarter of the 11th century, with its implication that it might have been founded by Basil II on his journey through Greece in 1018, on the grounds that any such monumental undertaking would not have escaped the notice of the chroniclers of the event.24 Instead, relying on a statement of Cyriacus of Ancona that the Katholikon was built by Constantine Monomachos (1042–1055), he would put the construction of that church between 1042 and 1044, the lower limit being imposed by the obvious fact that the building was imitated in the Panagia Lykodemou in Athens, whose founder died in 1044.25 This seems an uncomfortably cramped interval into which to squeeze the planning and building of the Katholikon, the spread of its influence enough to inspire imitation, and finally, the actual construction of the Lykodemou. Furthermore, it runs counter to the more generally accepted opinion that the mosaics and many of the frescoes date from the first quarter of the century. Failing new solid evidence it seems best to retain the traditional dating.26

The dating of the Theotokos, on the other hand, must be drastically revised. If the Katholikon is to be dated ca. 1010–1025, the Theotokos can hardly be later than the turn of the century,27 even without the independent evidence of the Joshua fresco. This fresco, discovered under the marble revetment in the north transept of the Katholikon which proved to be also the west wall of the Theotokos, is dated stylistically to the late 10th or beginning of the 11th century.28 Whether or not the Theotokos is the original church of St. Barbara erected on the site soon after the death of St. Luke in 953,29 it seems almost certain that it was built at least as early as the last quarter of the 10th century.30

As a building of the 11th century, when Byzantine architecture in Greece had reached its peak, the effect of the Theotokos would have been limited and negligible except in specific details; as a church of the latter part of the 10th century it can be viewed as the prototype for the other churches of Constantinopolitan derivation in Greece and it thus assumes great importance in its relation to the Holy Apostles, not only for its plan but for details of construction.31 In connection with the churches of the Constantinopolitan type it must be noted that however closely their plans were derived from the capital, their building methods were entirely Greek. The cloisonné system of masonry is found only in Greece, never in Constantinople, where bricks were used as ornamental levelling courses but not in the vertical joints.32 Other brick ornamental devices, such as Kufesque and related brick patterns embedded in the masonry, are likewise confined to Greece; but the dentil cornice, consisting of two or three successively projecting rows of saw-tooth brickwork, is common to both schools.33

The influence of both churches at Hosios Loukas was powerful. Nothing comparable to the Katholikon was built in Greece during the whole Byzantine period although it was imitated in simpler form in
the series of octagonal churches: Panagia Lykodemou, Christianou, Daphni, SS. Theodore at Mistra and S. Sophia at Monemvasia.34 Certainly, contemporary architects must have been keeping a watchful eye on the developments at Hosios Loukas. The Panagia Lykodemou, while borrowing the Kufesque frieze of the Theotokos, owes still more, because of its plan and general appearance, to the Katholikon.35

One of the earliest, perhaps the earliest, church of the Constantinopolitan type in Greece is the Katholikon of the Moni Petraki in Athens (Fig. 8,e; Pl. 13,a). Until recently the whole building was covered with painted plaster which concealed the distinction between the original building and later repairs and additions and gave a false impression of a late date. For that reason it had been generally overlooked by students of Byzantine architecture in Greece.36 The removal of the plaster revealed much of the real character of the building and gave an opportunity for Mme. Sotiriou to study it in detail and to distinguish the original church from all later modifications, major and minor. As a result of her investigation it must now be considered to head the list of the still existing churches built in Athens in the Byzantine period and is almost certainly to be dated in the 10th century.37

The church is drawn more firmly into the orbit of Constantinople by the projecting arches of the transepts, also present in the Theotokos (Pl. 13,c), and it seems not impossible that this church provided the inspiration for the Moni Petraki.38

The Holy Apostles represents not a further stage in the orderly development of the cross-in-square, but the independent by-product of an architect of genius. In plan, the Moni Petraki is closer, but in the total effect it comes out rather as a poor relation. The Holy Apostles borrowed, so far as its meager resources permitted, the best features of the exterior of the Theotokos.39 In the interior, the two churches have in common the four free-standing columns but in other respects the Holy Apostles is superior to the Theotokos in the interplay of space.

34 Millet, L'école grecque, pp. 117–118.
36 It was published briefly by Orlandos in EMME, pp. 125–129, where it was dated to the 13th or 14th century. It does not appear in Megaw's sequence, presumably because it was thought to be too late.
37 Sotiriou, Petraki, pp. 101–129. Warmest thanks are here expressed to Mme. Sotiriou for the photograph in Plate 13,a and for permission to reproduce the plan in Figure 8,e.
38 The relative dates of the two buildings remain to be determined. The more primitive character of the Athenian church, with its round apses, irregular masonry, and somewhat crude sculpture in contrast to the semi-hexagonal apses and sophisticated cloisonné masonry of the Theotokos, may perhaps be explained by the fact that Athens was just beginning to emerge from a long period of depression rather than by a prior date.
39 For the similarities of detail, cf. below, p. 25.
DATE

There is no external evidence for the date of the Holy Apostles. No convenient founder's inscription was discovered built into its walls, nor can any mention of the church be found in contemporary literary sources. Ceramic and numismatic evidence was also lacking from the excavation. On stylistic grounds, however, it had been consistently dated in the 11th century by Millet, Xyngopoulos and others, and these broad limits were narrowed down to the first quarter of the century by Megaw, who made the first detailed analysis of the building. Megaw's dating has been generally followed and whatever new evidence was uncovered during recent operations tends to strengthen rather than question it. It has been seen that plan alone cannot be used as a criterion for dating the churches in Greece, since some types, e.g. Manolada, survived long after they were, theoretically, superseded. Details of construction are often a more reliable guide to absolute chronology and it was on this basis, supported by some external evidence, that Megaw established his sequence of twenty-two churches, beginning in the early years of the 11th century and ending in the last quarter of the 12th. The Holy Apostles is assigned second place in the series, between the two churches at Hosios Loukas.

The key elements in determining the date of the Holy Apostles are the design of the windows and the character of the brick ornament and of the masonry in general. As noted above, the windows are of the "arcade" type, the earliest in Megaw's sequence of window design, which he derives from the window arcades of Early Christian basilicas and follows into the west façade of Skripou (A.D. 873/4). The gap can be further bridged by the Panaxiotissa at Gavroliimi (Pl. 13, b) and by the Moni Petraki at Athens (Pl. 13, a). Both churches have broad, triple arcaded windows in semicircular apses. Arcaded windows survived beyond the first half of the 11th century but they are found less and less frequently, and only in small churches. The broad triple window in the apse disappears entirely about the middle of the century, the latest known example being in the Kapnikarea in Athens, which in Megaw's series dates shortly after the middle of the century, or about 1050.

A date in the late 10th or early 11th century for the Holy Apostles is supported by the masonry, both in general and in detail, and most conspicuously by the brick ornament, chiefly Kufesque, in the joints of the cloisonné masonry. The use of Kufesque designs in Byzantine masonry was a phenomenon which burst upon the scene in Greece, and only in Greece, in churches of the 11th or even the 10th century and flourished for something over half a century, and then disappeared entirely. Obviously derived from Islamic

1 L'ecole grecque, p. 94, etc.
2 EMME, I, p. 79.
3 Chronology, p. 104, and passim.
4 E.g., Krautheimer, p. 276; Travlos, Πελαγδομική, pp. 151, 155; Frantz, Byzantion, XXIV, 1954, p. 520.
5 Chronology, p. 129. The Katholikon was placed first, following the opinion prevailing at the time of Megaw's publication. Although the relative positions of the two buildings have now been reversed, the place of the Holy Apostles remains unchanged, and it will be seen that the new order makes for a somewhat easier progression.
6 Above, p. 21.
7 Chronology, pp. 107, 121, 129.
8 Megaw, Chronology, pp. 104 ff.; Millet, L'ecole grecque, pp. 254-256. Cf. also A. Grabar, “La décoration architecturale de l'église de la Vierge à Saint-Luc en Phocide, et les débuts des influences islamiques sur l'art byzantin de Grèce,” Comptes rendus de l'académie des inscriptions et de belles-lettres, 1971, pp. 15–37. This important article came to my attention after the present work was in page proof.
textiles, pottery, etc., its sudden appearance has been attributed to the actual presence of Arab technicians, but in what capacity these artisans found themselves, whether as colonizers, prisoners of war, or traders, has never been satisfactorily explained.\(^9\)

The datable churches exhibit an unusual sequence in that they begin with the most elaborate and fully developed style (e.g., the Theotokos at Hosios Loukas) and gradually become more austere.\(^10\) Considering the complexity of the technique this reversal of the natural progression would be inexplicable except by assuming the presence and participation of the inventors of the system (or those to whom it was native), who turned it over to local workmen as their own colony gradually diminished. The revised dating of the two churches at Hosios Loukas seems more logical in this light, and one may easily suppose that the Theotokos was the example from which the later churches drew their inspiration.

The masonry of the Holy Apostles, although much less elaborate than that of the Theotokos, is still among the richest in Kufesque ornament of all the churches in Greece\(^11\) and uses some of the same patterns as the Theotokos. Other elements, too, strengthen the link between the two churches. They have in common the arcaded windows, triple for the main apse and double elsewhere, with the added feature of two-light grouped windows in the dome.\(^12\) The Holy Apostles, however, with obviously more limited means could not emulate the rich carving that adorned the dome of the Theotokos. Both churches exhibit the same free use of dentil courses to relieve the monotony of the wall surfaces and to counteract the strong verticals provided, in the case of the Holy Apostles, by the corners of the apses and angle chambers and in the Theotokos by the apses and projecting arches of the transepts. In addition, both churches make the same use of large blocks in the lowest course, not to form a pattern of crosses, but for accent and stability.

The church of SS. Jason and Sosipatros in Corfou, although different in plan, is closely related in masonry. Its generally accepted date in the 12th century has been revised, on convincing grounds, to ca. A.D. 1000 by P. L. Vokotopoulos.\(^12a\) In plan it is unrelated to either the Holy Apostles or the Theotokos, being a cross-in-square of the 2-columned Greek type, but the Kufesque brickwork in the joints of the masonry is very close to that of the Holy Apostles, although with a little less variety. This, however, is compensated for by two Kufesque friezes on the east end similar to those on the Theotokos. Vokotopoulos notes the close relation to both the Holy Apostles and the Theotokos and concludes that master masons had been brought from Athens or Thebes to build the Corfiote church. One is tempted to go even further and suggest that the same masons worked on the Holy Apostles and SS. Jason and Sosipatros, even though the two buildings were surely designed by different architects.

Megaw’s arguments for a date in the first quarter of the 11th century have been summarized above. Some further corroboration seemed to be furnished when the recovery of the original form of the dome added to the similarities between the two churches. But now that the Theotokos can with certainty be attributed to the 10th century, the Holy Apostles should probably be put back a quarter of a century, into


\(^11\) The Panagia Lykodemou in Athens, with its elaborate Kufesque frieze on the north façade, also deserves a place in this category, but its frieze is made by the champlevé process, in which the design is drawn on a flat tile and the background then cut away, instead of by the conventional method of using the thin edge of several pieces of brick to compose the design, the rest being embedded in the mortar of the joint. The champlevé technique must be regarded as a later development (Megaw, Chronology, pp. 105–106).

\(^12\) Megaw, writing long before the recent work on the Holy Apostles, noted that whereas the dome of the Theotokos had grouped windows, the Holy Apostles did not. His obvious reservation on this point was justified by the later discovery of the original scheme. In comparing the two domes it is important to bear in mind that the present horizontal cornice of the Theotokos dates from a late repair. Originally the arches pushed up into the dome as do those on the Holy Apostles (Stikas, H.L., p. 117, fig. 47).

\(^12a\) ΔΧΑΕ, Per. 4, V, 1969, pp. 149-174.
the last quarter of the 10th. It should probably be regarded as inspired by the Theotokos rather than exactly contemporary. The closure panel of the iconostasis of the Athenian church is close enough to one in the central section of the screen of the Katholikon of Hosios Loukas to indicate a fairly close chronological relationship (Pl. 12, d), but the epistyle of the Holy Apostles is primitive beside the elaborate ornamentation of the epistyle of the screen at Hosios Loukas. On the other hand, the closure panel of the Holy Apostles is considerably more developed than the slab from the Moni Petraki (Pl. 11, i). The relative dates of the Moni Petraki and the Theotokos are still open to question, but in any case the combination of architectural and sculptural evidence justifies assigning the Holy Apostles to the interval between these two churches and the Katholikon.

The above revision of dating makes improbable an earlier suggestion that the Holy Apostles might have been built to commemorate the visit of Basil II to Athens in 1018. More likely, it was built to fill the needs of the growing parish in an already expanding city. The visit of Basil, however, may well have been a major factor in the general improvement in the economic situation of Athens which lasted until the Frankish occupation. The Panagia Lykodemou, which follows the Holy Apostles in the sequence of Athenian churches, is the most monumental of all the middle Byzantine churches in Athens and is also the last to show any appreciable influence of Constantinople. From this point on the provincial school takes over with barrel vaults replacing groin vaults and saucer domes in the angle chambers and the sanctuary merging with the cross of the central part of the church (Fig. 8, i). At the same time the cloisonné masonry becomes simpler as the Kufesque elements decrease in number and complexity and the number of bricks in the joints is gradually reduced to one. The Kapnikarea will suffice to show the direction Byzantine architecture was taking in Athens. The arcaded windows are now confined to the east end; the Kufesque patterns are greatly reduced, and the single brick in the masonry joints is the rule.

14 Megaw, Chronology, p. 129. The mass destruction of churches in the mid-19th century must be borne in mind. Cf. Didron’s account: “après toutes les guerres . . . il restait encore, en 1839, quatre-vingt-huit églises, ou en entier ou en partie. On en démolit tous les jours; car le plan d’alignement et les constructions nouvelles ont forcé de mettre la pioche dans ces monuments, qu’on respecte beaucoup moins qu’une pierre où le paganisme aurait laissé une empreinte douteuse et même entièrement effacée. Pendant notre séjour, sous nos yeux, un de ces monuments a été rasé du sol et a complètement disparu avec ses peintures” (Annales archéologiques, I, 1844, p. 42). Even allowing for some exaggeration and granting that by no means all of these churches were of the Byzantine period we must allow the possibility of some gaps in the series.
15 Millet notes that titled persons and members of rich families are among those whose epitaphs are inscribed on the south wall of the church (L’école grecque, p. 7, note 1).
16 St. Nicholas ‘Poish, Arta (after Sotiriou, Petraki, fig. 10). As the influence of the capital recedes in Athens it makes itself felt in the provinces, which had been previously impervious. Cf., e.g., Hosios Meletios (ABME, V, 1939–40, pp. 34–106, with plan, p. 59, fig. 12); H. Sotir, Amphissa, with its projecting arches (ABME, I, 1935, pp. 181–196); the Argolid group of Chonika, H. Moni at Nauplia, and Merbaka (A. Struck, Ath. Mitt., XXXIV, 1909, pp. 189 ff; Megaw, Chronology, passim; Krautheimer, pp. 279–280).
THE TOMBS

A considerable part of the interior of the church was occupied by tombs and burials, i.e. the central part of the church proper and the western bays of the narthex (Fig. 9; Pls. 15, 16, 28). In addition, two vaulted osteothekai were constructed immediately to the west of the narthex, in the space later enclosed by the exonarthex, and another to the north, just outside the later addition. With one possible exception, all of the tombs were built after the erection of the church but before the end of Period I. The tombs were repeatedly cleaned out and re-used, leaving the remains of only the most recent occupants, which therefore offer no clue to their original date.

1. (Pl. 15,a). A shallow grave fitted into the space between the arc of the northern apse and the vaulted tomb, No. 2. Inner dimensions: L. 2.00; W. (center) 0.43; depth 0.37 m.

The walls were carefully constructed of brick, the bricks on the north side being trimmed to fit the curve of the wall. The stones forming the cover were also carefully arranged to conform to the wall. There were no contents other than the bones.
2. (Pl. 15,a). A vaulted tomb adjacent to No. 1, its crown lying immediately under the level of the flagged floor. Inner dimensions: L. (without entrance) 2.00; (with entrance) 2.65; W. 1.26; H. (to top of vault) 1.30 m.

Moderately well constructed of field stones and soft limestone blocks; entered at the east by two steps. There is no trace of mortar in the walls nor of any plaster lining. The vault is of stone except around the opening, where it is of large bricks. The square opening was partially covered by a slab of gray marble 0.90 × 0.40-0.50 m. The remaining space was filled with a piece of the epistyle of the original iconostasis. A jagged hole, ca. 0.70 × 0.70 m., was cut in the west end of the south wall for later use. A pile of bones was found at this end, together with three jugs of the Turkish period, probably the 16th century (Pl.15, b, c, d).1

3. A shallow burial between the vault of No. 2 and No. 4. The head (missing) at the west, the lower leg bones cut off by the modern iconostasis. In the angle of the right arm was a glass bottle (Pl. 15,e) and a piece of a curved tile of yellowish green clay, inscribed IC XC NI KA. The presence also of some small scraps of material, perhaps the edging of a priest’s vestment, indicates the recentness of the burial.

4. (Pl. 15,a). Next to No. 2. An ancient sarcophagus cut in one piece out of gray limestone. Inner dimensions: L. 1.94; W. 0.84; H.0.80 m. It was fitted for re-use with two steps at the east end.

The area all around was churned up at a very late period and the fill both inside the sarcophagus and around it was the same loose earth with many small stones, paving slabs and bones. The stones undoubtedly came from the packing around the sarcophagus, and perhaps also from a vault. Tombs 2 and 4 rest on the concrete bedding of the Nymphaeum; Nos. 1 and 3 are ca. 0.80–0.90 m. above it.

Apparently there were no tombs in the square formed by the columns under the dome. The south apse remained unexcavated.

All the tombs in the narthex were in the western half (Pl. 15,g). There were none in the irregular bays flanking the apse except for the steps leading down into No. 11. Only No. 11 was vaulted when discovered.

5. (Pl. 15,g, extreme left). The north edge of this tomb was concealed under the later masonry which thickened the wall of the narthex at this point and the inside was covered with a mass of rubble, probably from a late bench, between the pilasters. It was not practicable to investigate it further.

6. (Pl. 15,g). The lower part of the tomb consisted of a late sarcophagus, hewn out of a single block of poros. Inner dimensions: L. 2.03; W. 0.67; H. 0.57 m. Additional masonry consisting of a course of poros blocks and another of mixed poros blocks and brick brought the total preserved height up to ca. 1.10 m.

The two upper courses were stepped back at the east end to form two irregular steps. Some mortar adhered to the bricks and a mass of rubble from the packing surrounded the tomb. There was no trace of a cover. One skeleton was laid out, head to the west, but with considerable space between it and the end of the tomb. Two late jugs were found at the west end, and a Turkish coin of 1810 close to the spine. Two other skulls and a swept-up heap of bones indicated earlier burials.

7. (Pl. 15,g). Adjacent to No. 6. Inner dimensions: L. (without step) 1.98; (with step) 2.24; W. 0.62; H. 1.25 m.

Built entirely of brick and rubble. The south half of the east end is formed by the foundation of the north pilaster of the apse, and the corresponding part of the west end by the respond in the west wall.

1 Inv. b. P 24720; c. P 24718; d. P 24719.
2 Inv. G 16.
Room was made for a step by undercutting the foundation of the apse. The south side was broken away to 0.66 m. above the floor by the orthostate from the northwest corner of the apse, which fell diagonally across Tombs 7 and 8. The floor of the tomb is bedrock. One cover slab, originally part of an iconostasis panel, remained in place at the west end. A carved design on the underside was so worn as to be unintelligible. The bones of one person were found in a heap. There were no coins or pottery.

8. (Pl. 15, g). Contiguous to No. 7. L. 2.13; W. 0.54 m.
This tomb is of similar construction to No. 7. A single skeleton had been laid out, head to the west, but only the legs remained in place, protected by the orthostate which overlay Tombs 7 and 8. West of the orthostate was loose fill to the bottom of the tomb containing five skulls, a few other bones and three coins, of which two were broken or illegible, the other dated 1827. In the same loose fill, which continued under the orthostate and over the skeleton, was an accumulation of potsherds of the Turkish period and iron nails. Under the orthostate, also in loose fill, was an iron cannon ball.

9. (Pl. 15, g). Contiguous to No. 8. Like Nos. 4 and 6, this tomb consisted essentially of an ancient sarcophagus. Inner dimensions: L. 1.96; W. 0.67; H. 0.65 m. There was no step at the east end.

The sides were raised by a single course of bricks and limestone blocks, 0.16–0.19 m. high. Two irregular cover slabs, pieced out with smaller stones, were found in place at the east end; the western half was uncovered. The tomb contained the bones of two people, along with a fragment of a Turkish pipe and a Greek coin of the 19th century.

10. Under Tomb 9 and superseded by it was a vaulted tomb, probably the earliest in the church. Inner dimensions: L. 2.15; W. 1.02 m.

No step blocks were found but the narrow east end (0.65 m.) suggests that this was a stepped entrance. None of the vault was preserved but its outline remained in the shape of the west wall, giving an inside height to the crown of 1.25 m. A thick coat of pinkish plaster lined the interior and a large cross was impressed on the west wall while the plaster was still wet. The floor was composed of square terracotta tiles. No bones or other objects remained. The late brick wall across the west apse ran over the rim of the tomb, so that the vault must have been destroyed by the time the wall was built.

11. (Pl. 16, c). At the south end of the narthex. L. 2.48; W. 1.33 m.

This was a large vaulted osteotheke, well constructed of cut stone and rubble. At the east end was a square opening into which a stone cover was fitted, probably serving the first and second periods of the church. During the third period a smaller opening was made over the west end, surrounded by a collar of rubble masonry high enough to give easy access from the later floor. A number of bones were found inside, all apparently from the most recent burials.

12. (Pl. 16, a). Along the south wall of the exonarthex. L. 2.00; W. 0.77 m.
This was a single grave with walls constructed of somewhat irregular stone slabs placed on edge. It was occupied by a single undisturbed skeleton, head to west. The grave contained no pottery, coins or other objects. No cover slabs were found but one of the large ancient blocks from the west wall of the church overlay it in later times.

13. (Pls. 15, g, 16, a, b). Adjacent to Tomb 12. Inner dimensions ca. 1.20 × 2 m. (without entrance), 2.82 m. (with entrance). Height to crown of vault, 1.68 m.

Although this tomb is enclosed within the exonarthex, it antedates it. It was well constructed, with a high proportion of soft poros blocks, also a little brick and some field stones. Little lime mortar was used below the vault but in the vault itself was firm whitish mortar. The eastern half of the vault was overlaid by a roughly circular mass of flagging on a rubble bed laid to make the surface flat. A square hole in the

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3 Below, p. 33.
4 Inv. IL 1371; below, pp. 32–33.
THE TOMBS

middle gave access to the tomb. A large irregular stone covered the opening, which was at approximately the level of the original church floor, but this must be regarded as a secondary entrance since the tomb was also provided with a three-stepped entrance at the east end.

14. (Pl. 15, g, 16, b). In the western half of the exonarthex, between the central doorway and the north wall, with which it is not exactly aligned. Inner dimensions: L. (without steps) ca. 2.20, (with steps) ca. 2.85; W. 0.90; H. (to crown of vault) 1.35 m.

Another vaulted osteotheke, but much less well constructed than Tomb 13. The walls were built of field stone and brick set in mud, but a fairly firm gray lime mortar was used for the vault, which was made of brick. The eastern third of the tomb, over the two-stepped entrance, was covered with two stone slabs. As in No. 12 many bones were found inside.

The wall of the exonarthex overrode the west end.

15. (Pl. 15, g). A vaulted tomb or osteotheke under the north wall of the narthex, its south wall was destroyed to a level of 0.57 m. above the floor by the builders of the latest addition to the church. Inner dimensions: L. 2.05; W. 1.20, with an entrance 0.66 m. long and 0.60 m. wide.

The west wall was missing. The north wall was preserved to the spring of the vault, 1.20 m. above the floor. This was the most poorly built of all the tombs. Except for the vault, which was of brick, the masonry was rubble packed with earth; the inside was smeared with mud, not plaster. A coin of Nikephoros III (1078–1081) was found in the tomb, but the fill had been completely churned up by later activities.

HUMAN SKELETAL MATERIAL FROM THE CHURCH

Between August 20 and 27, 1954, J. Lawrence Angel studied and photographed the skeletons from Tombs 6, 8, 9 and 13, and from a bone pit in front of the altar before the bones were reburied during the restoration of the church. Panos Yannoulatos assisted him. The following notes are contributed by Dr. Angel.

The skeleton (182 AA) from Tomb 6, accompanied by a coin of 1810, is that of a woman just under 50 years old, medium in body size, and suffering from bilateral congenital hip dislocations with subsequent slipping of hip epiphyses and formation of new joints for the deformed femoral necks above the original acetabula; the shoulder joints are arthritic (bicipital grooves especially) and arms and forearms are hypertrophied as if from use of crutches or staffs for support in walking. This crippled condition in a person of apparently special social or religious status is interesting.

There are seven other skeletons from the other tombs but the rest of the bones are isolated from one another, presumably from secondary burial, and seem to represent 150 to 250 adults (allowing for many broken bones not profitable for study) and very few children. In the total sample are about 100 male and 60 female femora, almost all unpaired, smaller numbers of other long bones, and 66 male plus 23 female skulls rarely accompanied by mandibles.

The health status of this population of 19th century or Romantic period date is interesting and is not bad. Average age at death is 44 years for 66 males and 39 years for 24 females, slightly older than the total Romantic period sample (males 40 [N=208] and females 37 [N=29]), very much older than the Baroque period sample (34 and 28 years for males and females) and on the way toward the average Greek longevity in 1928 of 56 for males and 54 for females according to age at death data published by Valaoras; the relatively shorter female than male life span is important in relation to fairly large families and presumably high infant mortality. The average statures, 170 cm. (143) for males and 158 cm. (87) for females, are about the same as in Classical and in modern Greece (though 5 cm. less than in modern U.S.A.). Lines of arrested growth (hypoplasia) on enamel of permanent teeth mark the effects of some insult to the enamel organs as they form tooth crowns between birth and about 10 years of age; the hypoplastic lines occur-
ring all at a single time or succession of times, like tree rings, indicate childhood disease(s) or occasionally malnutrition, obviously depending on the child’s physiological resilience. In slight degree these occur in 29% and medium degree 17% (N=24) in the Romantic sample as compared with 51% and 8% in modern U.S. white skulls (N=111) of moderate to poor economic background. Anemia as indicated by porotic hyperostosis occurs in trace degree in 25% and slight and moderate degrees in 7% as compared with about 8% and 0% in modern whites (N=163); this probably reflects occurrence of abnormal hemoglobins in the population as a response to falciparum malaria present in Greece until after World War II. Dental lesions (loss in life, carious and abscessed teeth) average 10.9 per mouth, in comparison with about 13 in living Greeks and 15 in U.S.A. (though only 4.5 lesions in Classic Greeks).

The robusticity index (relative thickness) of the femur is fairly high, 13.6 (33) in males and 12.8 (29) in females.

One femur and several tibiae show severe periostitis and thickening, plausibly syphilitic in origin. The femur pilastic index, or back to front as related to transverse shaft thickness, at 107.0 (96) and 105.4 (57) for males and females, also indicates strong muscles. But the platymeric index at the upper end of the femur shaft is 83.9 for 98 males and 80.0 for 56 females, or about in the range of semi-urban rather than rural or early populations. And the cnemic index of the shin, at 68.8 for 42 males and 72.4 for 24 females, also shows less flattening than in prehistoric times though below the average for really urban groups. Likewise the knee and ankle joints show a little less rough-country specialization than earlier. The total body build of the few more or less full skeletons seems to fit the stocky and robust form typical at almost any period in Greece, and the quite varied skull form matches that of the modern population in general, fitting the microevolutionary trend which really starts to move in the time of the Roman Empire away from the Classic norm.
THE LATER PERIODS

PERIOD II

The church apparently remained in use for more than six centuries with little change except for the addition of the arcosolium and occasional digging up of the floor to add more tombs or remove the bones from those already existing to make room for new burials. There is no way of knowing whether or not the building suffered in 1204, when Leon Sgouros sacked the lower city. Excavations in the Agora have produced evidence of extensive destruction of private houses at that time, but the fact that a number of pieces of the original iconostasis were found built into the masonry of Periods III and IV, and none into that of Period II, suggests that the screen survived through Period II, an unlikely event if there had been much damage to the fabric of the building.

The next phase can be reconstructed from internal evidence, aided by the plan published by Lenoir (Fig. 10). A cannon ball found in a tomb in front of the western apse indicated gunfire as the probable cause of destruction. The church was then rebuilt with a large number of pieces of the original iconostasis, and the church may have been expanded to accommodate a larger congregation.

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1 Nicetas Choniates, pp. 804 ff. (Bonn). It seems likely that most of the architectural sculpture built into the walls of the Little Metropolis represents the debris from churches destroyed by Sgouros, since the latest pieces can hardly be earlier than the 12th century, or much later.

2 L'Architecture, p. 252, No. 163. For Lenoir's visit to Greece, cf. above, p. 2. Although his plan was not published until 1852, his only visit was apparently in 1836, giving a terminus ante quem for the beginning of Period II.

3 Tomb 8, above, p. 29.
cause of the damage to the church, which included the destruction of the roof and vaults of the west
apse and the narthex, and of the upper part of the west and south walls of the latter. The dome also was
damaged, as well as some of the masonry of the church, especially on the south side. Two historical
events would fit the circumstances: the fighting in Athens between the Turks and Venetians which
resulted in the destruction of the Parthenon in 1687, and the siege of the Acropolis by the Turks in
1826. Of these, the earlier is preferable. The pottery in the debris which accumulated in the loose earth
over the cannon ball was all earlier than the 19th century and the wall paintings, which must post-date
the remodeling of the dome, are attributable to the 18th century.4

Rebuilding of the narthex must have followed soon after the destruction. A great quantity of building
material used in the reconstruction was taken from the destruction debris, including many blocks of shell
conglomerate. These blocks were of a convenient and easily portable size and such a quarry would not
have been ignored for long. A number of architectural marbles from the original structure were also re-
used. One of these was the lintel for the south doorway of the narthex, which was found, intact and un-
weathered, built into the new masonry of the south wall (Fig. 5; Pl. 15,f). We are probably safe in assuming,
therefore, that the first major remodeling of the church took place in the late 17th or early 18th century.

In this phase the perimeter of the church remained the same. The main body of the building had suf-
fered only superficial damage and although the narthex had to be almost completely rebuilt enough re-
mained of its walls to serve as a basis for the reconstruction.5 The major change was the addition of a
second storey, dictated by the need to cover the archway that had been left exposed by the destruction of
the vault of the western apse. The upper storey might have been used as a women’s gallery (gynaikonitis)
or, perhaps, as a library.6

In earlier restorations7 it had been assumed that the west apse had been completely eliminated in the
first rebuilding (Period II). Closer examination, however, shows that this was probably not the case. A
large ancient block, similar to those used in the west wall and elsewhere at key points, was found lying
diagonally across Tombs 7 and 88 (Pls. 15, g, 28). This must have stood originally at the north side of the
entrance whence it fell or, more likely, was pulled down to make way for the square pier of Period III
when all the remaining parts of the apse were demolished.8 The ruthless tearing away of the walls at that
time created two free-standing piers at the east end, and the precarious state of these as they were found
makes it doubtful that they could have survived the vicissitudes of so long a period as that covered by
Periods II through IV.10

This conclusion is sustained by Lenoir’s plan (Fig. 10), which shows a square-sided apse whose inner
semicircle coincides exactly with that of the newly discovered foundation. The inaccuracies of Lenoir’s
plan are obvious: the exterior side walls of the main apses are represented so that if they were projected
they would meet at a right instead of an obtuse angle; the outer walls of the prothesis and diaconicon are
shown as semicircular, and both they and the western chambers are made slightly larger than the main
apses instead of half their size. These errors are easily explained if one considers that Lenoir would have
had few facilities for drawing when he was in Athens in 1836 and that he probably drew his plan for the
much later publication from brief notes made on the spot.

The square exterior of the west apse as shown by Lenoir may be dismissed along with his other errors
(it may be noted in passing that the massive piers at the entrance would easily give the impression of
squareness), but the actual existence of the apse on his plan must be taken more seriously because there
would have been no need to invent such a structure. The upper part (i.e., the vault) had certainly been

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4 Below, p. 35.
5 Above, pp. 4–5.
6 For the latter use, cf. the church of Blachernai in Elis (A. K. Orlandos, ‘Αρχ. ‘Εφ., 1923, pp. 18-19 and fig. 29); also Daphni
(G. Millet, Le monastère de Daphni, 1899, p. 59).
7 Byzantion, XXIV, 1954, p. 515, fig. 1, and Agora Picture Book, No. 7, fig. 47.
8 Above p. 29.
9 Below, p. 37.
destroyed before Lenoir saw the church because only after its destruction and the addition of the second storey was there any reason for the stairway on the south side as shown on his plan. But something must have remained to be recorded so accurately as far as the inner semicircle is concerned.

The level of the floor of the second storey is determined by a series of beam-holes in the south wall (Pl. 16, e). It is not certain how much of the original vaulting of the narthex survived to support the floor, whether any of it was rebuilt or whether it was replaced entirely by horizontal supports. In all probability the three western bays collapsed but the north-south arches of the eastern bays remained or were rebuilt.

One small section of vaulting, consisting of three yellowish bricks set in hard gray mortar, was found reused as building material in the north wall of the latest addition. The curved surface was covered with plaster bearing traces of green and white floral ornament on a black ground. The only other evidence for painting was found in the north half of the narthex in two patches of destruction debris covered with ca. 0.25 m. of soft earth between the floor levels of Periods II and III. Here, in addition to much broken marble, was a large quantity of fallen plaster with traces of painting but none with the solid blue or yellow which was found in the upper layers. The use of yellow brick, which is not found elsewhere in the church, and the fact that all the surviving vaults of the original church are of cut stone seem to preclude a date in Period I proper, but it is not impossible that all of these remains are attributable to the arcosolium.

The reconstructed narthex was covered with a timber roof of which the ridge was ca. 0.35 m. higher than the peak of the adjacent western vault of the Byzantine period, but 0.55–0.60 m. lower than that of the latest addition (Pl. 18, a). Access to the upper storey, as shown on Lenoir's plan, was by means of a stairway along the outer face of the south wall, beginning at the west wall of the south apse and ending at the junction between the church proper and the narthex. No trace of a foundation for a stair was found here or elsewhere, but a doorway measuring 1.10 × 2.00 m., subsequently blocked up, was found to have existed at exactly the point where Lenoir's stairway ends, using the cloisonné masonry of the southwest angle chamber as its eastern face (Pl. 16, e,f). Four timbers laid side by side composed the lintel, and the whole doorway, including the Byzantine masonry, was lined with a coating of whitish plaster. Two windows, also blocked up, were found directly opposite each other in the north and south walls, two meters from the east end. The north window was preserved to its full height of 1.27 m. but its west side had been cut away by the window of the latest period (Pl. 18, b). Of the opposite window only part of the sill and west face remained, but a long marble block underlying the sill made it possible to restore the width at ca. 0.90 m. Assuming that the two windows were symmetrical, the windows measured ca. 1.28 × 0.90 m.

The arcosolium remained in use in some form until just before the final restoration of 1876–1882, but it is doubtful that the tomb itself could have survived the destruction of the narthex and apse. It was probably at this time that it was turned to a more prosaic use, that is, to house the χωνευτηρίον, or disposal place for the baptismal water. That this was its final purpose is clear from the presence in the northeast corner of a deep hole, round and wide at the bottom but narrowing toward the top, where it was fitted with a square curbing of tile around an opening 0.26 m. square (Pl. 16, d). The contents were chiefly glass bottles; one, intact and still full of water, was tightly sealed by its glass stopper and bore the impressed inscription LUBIN PARFUMERIE PARIS.11

The Dome

During Period II the shape of the windows was changed, probably on account of damage by gunfire. This involved no great structural operations since, as noted above,12 the brickwork of the heads of the arches was in place in most of the windows, although in a parlous condition. That all the windows were left open at this time is demonstrated by the wall paintings which not only took account of the spacing by

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11 The firm of Lubin has kindly furnished the date of 1798 for its founding, thus corroborating the archaeological evidence that the χωνευτηρίον was in use during the 19th century.
12 P. 10.
PERIOD III

putting a standing figure in each of the intervening wall surfaces, but also continued with simple floral ornament into the embrasures and the newly created soffits. In addition, the division between drum and dome was marked off by a narrow band just above the present top of the windows.

THE WALL PAINTINGS

Probably the whole of the interior was covered with paintings during Period II. All those in the narthex disappeared when the inner faces of the wall were reinforced in Period IV, or even earlier, but in the eastern end of the church and in the dome some remains were found under the latest paintings. All are of mediocritie work of the 18th century, extensively repainted and disfigured by the pick-holes made to provide a toothed surface for later plaster. They deserve only the briefest attention here.

In the summit of the dome is the Pantokrator (Pl. 18,d), surrounded by a band of floral ornament, and underneath, a zone, 0.88 m. high, ending at the top of the windows in their present form, with St. John the Baptist, six-winged cherubim and six archangels. In the spaces between the windows were Solomon, Aaron (Pl. 17,b), Habbakuk and Elisha; of the remaining four figures only the lower parts were preserved. Traces of the Evangelists remain in the pendentives.

The soffits of the main arches were decorated with busts of saints in medallions; those of the lesser arches with half figures. The Virgin occupied her usual place in the apse, with the Communion of the Apostles beneath. Both scenes are almost completely defaced. In the half domes of the prothesis and diaconicon are two of the figures of the Old Testament Trinity, inscribed Ὁ ΜΕΓΑΛΗΣ ΒΟΥΛΗΣ ΑΓΓΕΛΟΣ and Ὁ ΠΑΛΑΙΟΣ Τῷ Ν ΗΜΕΡΩΝ, respectively, and on the wall of the prothesis is the Sacrifice of Isaac of which only the uppermost part is preserved (Pl. 17,a).

In the niche of the northwest angle chamber is St. Romanus (Pl. 17,c) standing, with a band of floral ornament underneath. An unidentified saint occupies the corresponding niche in the southwest chamber (Pl. 17,d). Both of these niches were later blocked up.

Traces of still earlier paintings survive in the east end of the church, underneath the later layer, but only enough to show that one or possibly two series had preceded the present. No figures are preserved, and the few traces of ornament indicate merely that they belonged to an earlier, less naturalistic phase.

PERIOD III

This is a brief and somewhat shadowy period in the history of the church. The evidence for its existence as an entirely separate period lies mainly in a plan published in 1854 (Fig. 11), together with the corroborative testimony of a foundation discovered on the line of the west wall of the church as shown on this same plan (Pl. 16,a). But elsewhere the evidence of the excavation is at variance with the plan and we must suppose either a transitional period or else some inaccuracy in the plan.

There can be little doubt that the destruction that necessitated the rebuilding in Period III was caused by the furious fighting between Greeks and Turks in 1826. It has been shown that the damage to the east pediment of the Hephaisteion was inflicted in that year by Greek soldiers on the Acropolis firing on the Turks who gathered in the building, and that the Turks were continuously bombarding the Acropolis (and no doubt often falling short) from the Pnyx, the north and the east. And Lenoir, in 1836, referred to “le dernier siège qui, en 1827, réduisit en cendres toutes les habitations et presque toutes les églises d’Athènes.”

The plan of 1854 gives no indication of the continued presence of the original west wall but represents an elongated nave, with the piers at the entrance to the western apse and the pilasters flanking the cen-

15 Rapport, p. 6.
termal doorway in the west wall transformed into four free-standing piers. The transformation of the piers of the west apse is confirmed by the evidence of the excavation which also, however, establishes beyond doubt the fact that between Periods II and IV the central doorway was still in use, its threshold raised to conform to the new ground level and the doorway widened (Pl. 19, a). The piers, therefore, could not have been free-standing at this time (Pl. 38).

Fig. 11. The Holy Apostles. Plan of 1854.

To learn what happened to the original west wall during the successive periods of rebuilding it will be most convenient to begin with the state in which it was uncovered and track its history backward. As discovered, almost immediately under the tiled floor of the latest period, the top course consisted of two large ancient blocks (Nos. 7 and 3) which had stood as orthostates in the wall\(^{16}\) and had been carefully tipped over from their positions at the north sides of the north and south doorways respectively (Fig. 12). Their

Fig. 12. Position of Orthostates in West Wall.

\(^{16}\) For the use of these in the original masonry, cf. above, p. 6.
original positions were made certain by the fact that when the blocks were pulled upright their lower ends fitted exactly into the cavities which they had left. Even the surfaces, which were already chipped and weathered when they were first built into the wall, fitted the impressions which they had left in the mortar of the pilasters on the inner side of the wall, as into a mould. In the position of the central doorway was the original threshold of the church. But to take account of the new ground level it had been lifted from its original position (or, more likely, from an intermediate position for use in Period II) and relaid in a bed of gray mortar on top of another orthostate (No. 5), which had stood at the north side of the doorway and, like its neighbors, had been pulled down and laid in the line of the wall, but at a lower level.

Orthostate No. 4, on the south side of the central doorway, had disappeared by this time, its cavity now being occupied by a southward extension of the threshold consisting of part of an ancient stele with a pivot hole cut close to the edge (Pl. 15,g), thus widening the whole threshold from 1.61 m. to 2.33 m. The only reason for this change, as a result of which the doorway was no longer centered on the axis of the building, must have been the necessity of using the reconstituted pier next it as the south jamb after the disappearance of the orthostate (Pl. 19,a). Orthostate No. 5, on the north side of the door, was no longer in place, having been used as a base for the threshold, but this was partly compensated for by shifting the threshold block slightly northward. The remaining space was filled with rubble masonry which may have been continued upward to form the north door jamb. No. 6 was missing, and No. 2 had been pulled down just outside the line of the wall because there was no space for its length in the wall.

To sum up: of the eight orthostates which originally constituted the lower part of the west wall, those at the corners (Nos. 1 and 8) have remained in place through the whole history of the church up to the present. During Period III Nos. 2, 3, 5, and 7 also remained in place, a fact that is established by the plaster still adhering to some of their surfaces; e.g., of No. 3, as it stood in its original position, only the south half of the east face was plastered, first with blue, then with yellow, to a vertical line corresponding exactly with the south side of the pilaster (also yellow) against it. That these adjustments took place not long before the final remodeling of 1876-1882 is demonstrated by the level at which the threshold was placed, with its surface just below the floor of Period IV and 0.06 m. above the floor of the narthex in Period III. Furthermore, on two orthostates (Nos. 2 and 7) both the blue and the yellow coats of plaster begin only ca. 0.65 m. from the bottom, i.e. at the level of the floor of Period III (Pl. 19,b).

On the basis of the above, the wall foundation of large blocks and rubble masonry found on the same line as the west wall on the plan of 1854 may be taken at its face value; we must suppose a transitional period between our Periods II and III, in which the west wall was once more rebuilt with its threshold ca. 0.20 m. higher than previously and the narthex replastered.

It was probably at the time of the raising of the threshold that the last remnants of the apse were destroyed, because some of the same blue and yellow coats of plaster were found on the surface that had been left exposed when the apse wall was torn away at its junction with the main arch.

The eastern pair of the free-standing supports of Period III was built on the piers flanking the entrance to the western apse (Pls. 19,a, 28, 38). Each one was 0.63 m. square, of shell conglomerate, and occupied the outer half of the pier. The western pair was recognized only in a change of earth neatly outlined by a line of plaster, having been completely uprooted when the west wall was finally demolished.

The floor of the second storey must have collapsed along with the destruction of the apse at the end of Period II and it is uncertain whether it was replaced in Period III. The doorway at the top of the stairway was found blocked up, as were the two windows of Period II, but whether this was done in Period III or IV cannot be determined.

A small χωνεομπρων, crudely constructed of field stones with no mortar of any kind, was built against the wall in the southeast corner of the narthex. A clay pipe of a type still in use today, ca. 0.15 m. in diameter, drained into it from above. Two coins, one of 1844, the other of 1869, were found inside.

A stone bench occupied the space between the pilasters of the south wall of the narthex. Nothing could be determined about its date except that it post-dated the construction of the vaulted tomb (No. 11) and
that it, like the χωνευτήριον, went out of use before Period IV. A similar bench on the north side is perhaps represented by the rubble masonry overlying Tomb 5.17

A brief description of the church by Petit de Julleville in 1868 shows that the church was not entirely without charm in Period III, when he refers to it as “assez gracieuse.” It is perhaps worth quoting the entire passage, which gives some idea of the setting of the church at this time: “À l’emplacement où Curtius et Bursian ont placé l’autel des douze dieux (au centre de leur Agora) s’élève une importante église byzantine dédiée aux Douze Apôtres (οἱ δώδεκα Ἀπόστολοι Σολάκοι. Solakoi [sic] est le nom du quartier).

“L’église, très-ancienne, a été rebâtie dans un style assez gracieuse; mais mes murs rajeunis offrent de nombreux débris byzantins ou même antiques. D’autres fragments, trouvés sans doute pendant les travaux de restauration, sont déposés dans une cour attenante à l’édifice.”18

PERIOD IV

The remodeling of 1876–1882 was apparently undertaken more from the prevailing desire for enlargement and embellishment than from necessity (Pls. 1, 19,c,d, 39). Much of the work is recorded in the parish register in the form of accounts of payments to masons, carpenters, etc., culminating in the proud announcement of the purchase of the bell on July 27, 1883: “Paid to the Papaeliopoulos brothers of Athens, for a bell weighing 307 okes (860 lbs.), at five drachmas the oke, the sum of 1535 drachmas, paid in new francs.” The city of Athens paid for the bell; the rest of the expenses of the renovation of the church were borne by the parish.

In preparation for this final remodeling whatever orthostates had remained standing in the wall of the narthex through Period III, other than those at the corners, were laid down in the line of the foundations of the wall where space allowed or else were removed, and a new floor of marble tiles was laid ca. 0.15 m. above the old, giving a single continuous level from the west end of the church up to the solea (Pl. 39). The north and south walls of Periods II and III were allowed to remain but were raised still higher by 0.55 m.19 The main entrance was now through the north wall, under a high arch which formed the lower storey of the bell tower. A less imposing doorway opposite gave access from the south. These entrances coincided with the ends of the original walls of the 11th century.

The new addition was roofed with a low pseudo-vault, the skeleton of which was formed of iron girders and wooden transverse supports. Light and air were admitted through arched windows opposite each other in the lower part of the north and south walls east of the doors and two others in the west wall. The balcony, which ran around the west end, was lighted by a pair of narrow arched windows in the lunette over the main doorway and a corresponding pair in the south wall, as well as by two rectangular windows in the upper part of the west wall (Pls. 1, b–d, 19, d).

On the exterior the arched windows in the west wall were surrounded by ornamental brick borders which were later covered up when the whole addition was plastered over (after 1890, when Lambakis photographed the church as shown on Pl. 2, d). The interior also was plastered and in the course of time most of its surfaces were covered with paintings, many of them surrounded by frames. Some of the paintings were signed and dated, the latest in 1910. The quality of the paintings speaks for itself (Pls. 18, e, 19,c).

In the latest period the side doorways from the narthex into the church proper had been almost doubled from their original width of 0.90 m. The change not only detracted greatly from their appearance but also

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17 Above, p. 28.


19 The exonarthex of Period III must have been destroyed in toto; no breaks could be seen in the masonry of the new walls west of the limits of Periods I and II, and whatever ancient marbles were recovered from them were quite inconspicuous and would not have aroused the comment of de Julleville.
endangered the solidity of the building by cutting into the piers supporting the main west vault, already weakened by the removal of the apse. The crowning arch of the north doorway was still in place, together with a very small bit of the original groin vaulting of the northwestern corner of the narthex.\textsuperscript{20} On the south side short lengths of wooden beams had been placed transversely over the top of the arch to prevent its collapse.

A small doorway was opened in the south wall of the diaconicon, its threshold, which is at the outside ground level of the latest period of the church, being a clear indication of its date (Pl. 1, d). This door, which was still in use when the restoration of the church began, may have been in compensation for a door in the east wall of the north apse created in Period III, and blocked up during the remodeling of Period IV or shortly before (Pl. 18, f). The blocking was a shoddy piece of construction, particularly on the inside, where it consisted of loose rubble. In among the rubble were placed, as relics, 99 mosaic tesserae wrapped in a piece of paper,\textsuperscript{21} several hand bills, dated 1862 and 1863, announcing celebrations of various churches, and parts of at least three sheets engraved in Tenos in 1823 showing the architect's vision of the new church on the island. Part of a human skeleton was also found among the relics.

\textbf{CHURCH FURNITURE}

The original altar table probably went out of use at the same time as the iconostasis. It was replaced in Period III or Period IV by a fine Doric capital\textsuperscript{22} supported on a stack of other re-used marbles (Pl. 18, c).

\textsuperscript{20} Above, p. 10.
\textsuperscript{21} Above, p. 13, note 22.
\textsuperscript{22} Inv. A 4202.
CONSERVATION AND RESTORATION

The need for immediate measures of conservation, both temporary and permanent, became increasingly apparent as demolition of the late walls revealed more and more weaknesses in the original fabric, whether caused by time or by misguided efforts toward improvement. Almost immediately the church was buttressed from without by large timbers, and as work progressed in the interior all of the arches were braced until the restoration was completed (Pls. 14,a, 20,a,b).

The most precarious part was the western apse. Its destruction and the creation of the free-standing piers of Period III from the stubs of its walls had removed all support of the main arch from the west, and the situation was made still worse by the widening of the lateral doorways in Period IV (Pl. 39). The state of the piers could be appreciated only after the removal of the late plaster, which revealed that no attempt had been made to reinforce them; the jagged surfaces had merely been covered with a rubbishy facing, ca. 0.10 m. thick, of loose brick, tile, and stone barely held together by a soft mortar. Where the original blocks were preserved they were in very poor condition and flaked easily (Pl. 20,c,d).

In general, the exterior masonry was in good condition and needed only some repointing, which was done with mortar carefully composed to correspond to that used in the original building. Some patching that had been done during the later periods of the church, particularly on the south side, was much less solid than it looked, owing to the inferior quality of the mortar used in the repairs. These places were tidied up and strengthened, but not rebuilt in cloisonné in order to preserve the indications of the history of the building. The rubble masonry lining the interior faces of the cloisonné was found in numerous spots to be in poor condition on account of the crumbling mortar. Reinforcement was done piecemeal, taking the weakest spots first and moving to another area while the concrete was setting (Pl. 20,e).

Although damage to the outer faces of the dome had necessitated alterations to the windows in Period II,1 the vault itself was intact (Pl. 6,e). The mortar, however, was crumbling and had to be replaced in toto. In order not to destroy the appearance of the roof or remove the tiles which, if not original were still very old, this whole operation was conducted from the inside, after the temporary removal of the painting of the Pantokrator.2 The mortar was squirted by means of a gun into the joints without disturbing the arrangements of the blocks comprising the dome.

In restoring the tympana of the dome all original bricks were left in place where they had survived.3 Necessary replacements were drawn as far as possible from old bricks salvaged from the demolition of the later walls. New triangular limestone blocks were cut to preserve the original decorative scheme and all loose joints were filled with new mortar (Pl. 8). The cloisonné masonry below the arches was also repointed.

Of the four columns, only the southwestern was pronounced sufficiently sound to be allowed to remain and it was reinforced by four bronze bands (Pls. 26,a,b, 27,a). Of the other three, that at the northeast had

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1 Above, p. 34.
2 The painting was transferred to canvas supported on a light wooden frame and later put back in place. This delicate operation was the work of the highly skilled technician Photis Zachariou, whose services were kindly made available to us for the occasion by the Greek Government.
3 Above, p. 35.
already been replaced (Pl. 5,f). The southeastern column had been shattered by vertical cracks caused when the modern iconostasis was anchored to it, so that it had to be wrapped in ropes to prevent it from falling apart in the process of removal (Pl. 21,a). At the northwest corner the column appeared at first sight to be in good condition but after the covering of paint and plaster was removed the lower part was seen to have been so hacked away, possibly when the modern floor was laid, that little more than half its diameter was left, the circle having then been filled out with plaster containing much straw.

Substitutes for the three unsound columns were cast in concrete. Each was bedded on a slab, 1.20 m. square (Pl. 21, c), over which was laid a grid of iron rods (Pl. 21, b). A base in the form of a truncated pyramid was cast in a wooden mould over the bedding and the concrete shaft was poured into a wooden mould erected around a skeleton of vertical iron rods surrounded by rings (Pl. 21,b,d,f). After the column had set a simple flaring capital was cast in the same way (Pl. 21,e), but small enough to allow for a facing, in fine white cement, made from a cast of the best preserved of the two surviving Corinthian capitals. The shafts were also faced with grayish white cement, lightly veined (Pls. 26,a, b, 27,a).

On the advice of the engineers, the groin vaults and saucer domes of the narthex were reconstructed in reinforced concrete (P1. 22, a-c). The supporting piers and the newly constructed wall of the apse were built of simple cloisonné with a single brick in the joints. These and all other interior surfaces except where the wall paintings were preserved were subsequently plastered (Pls. 26–27).

The west wall, of course, and much of the south had to be rebuilt. The orthostates lying in the line of the wall and near by were raised and returned to their original positions, as was also the threshold, and the step in front of the door was solidified. Of the two missing orthostates, one was replaced by the similar one which lay in front of the western apse, the other by a new block. The masonry above and around the relieving arches over the three arches was built in cloisonné masonry with Kufesque elements copied from elsewhere in the church and crowned with a Kufesque frieze (Pls. 22,d, 23,a).

A low bench was built around the foundations as they were exposed by the excavations up to the original ground line, with the dual purpose of protecting the foundations and restoring the proportions of the building (Pl. 24).

The wall paintings were cleaned and the pick-holes which had been made to provide a tooth for new plaster were filled in and tinted lightly. The aseptic character of the new walls of the narthex was relieved by installing here some of the wall paintings which had been removed from the little chapel of St. Spyridon before it was demolished in 1939. The chapel, which stood above the foundations of the Library of Pantainos, south of the Stoa of Attalos, was built in the early 17th century against the ruinous east wall of an earlier church. The paintings dated from both periods. A few very fragmentary bits of paintings from the Hephaisteion in its latest Christian phase were also inserted in the walls, and the narthex was further embellished by installing in the position of the arcosolium the sarcophagus front found in the vicinity.

New frames were constructed for the three doors of the narthex out of pieces of the original frames supplemented by new marble. The lintel of the south door, which had been rebuilt intact into the wall of Period III, was restored to its original position and a companion piece was carved for the north door. All the doorways were furnished with new oak doors carved with an ornamental peacock design.

A new marble iconostasis was carved, using the original fragments as a model and incorporating them in the new screen (Fig. 7; Pl. 26,a,b). No foundations were found for the altar table; its supports were

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4 Above, p. 7.
5 This frieze is one of the few elements in the whole church for which there is no evidence, but in view of other similarities with the Theotokos at Hosios Loukas (above, p. 25) and, even more significant, the close similarity between the masonry of the Holy Apostles and that of SS. Jason and Sosipatros in Corfu with its Kufesque frieze (above, p. 25), its inclusion was felt to be justifiable.
8 All the new marble carving was the work of Aristeides Rombos, who was also responsible for the new omphalos, composed of eight different kinds of marble (Pl. 10,c). The doors were carved by Theophanes Nomikos.
based on a colonette found during the excavations inside the church. The window grilles and the lunette over the main door, of which no remains were found, were patterned after those of Hosios Loukas.9

Three hanging lamps were purchased from antique dealers and hung in the narthex; for the church proper two large polyelaioi were commissioned from a bronze worker on Hephaistos Street. The antique dealers in the neighborhood, who claim the Holy Apostles as their patron saints, presented a handsome brass lamp for the main icon.10

The Holy Apostles had absorbed the parishes of other churches in the Agora, including the Hypapanti, during the course of the excavations. When our church became a public monument its parish, by now much diminished, was incorporated with that of St. Philip just north of the present (1971) limit of the excavations.

LANDSCAPING

The church, which had become progressively more isolated as digging to the north reached ancient levels, has now been brought within easy reach of the Agora by the construction of an informal stairway leading down to the East Building; the intermediate levels have been terraced and planted with low shrubs. Another stairway in two descending flights gives access to the church from the road on the south side, via a flagged walk flanked by oleanders. The area west of the building is kept as a lawn as far as the foundations of the latest phase which, together with the line of the west wall of Period III, have been preserved at ground level as a visible but unobtrusive reminder of the later history of the church. An olive and some small bushes on all sides blend in with the landscaping in other parts of the Agora (Frontispiece, Pl. 25).

The Byzantine marbles from all parts of the Agora have now been brought to the area around the church to make an outdoor museum. Many of them are stored on shelves built along the retaining wall between the east-west road and the Southeast Fountain House, immediately south of the church. Some line the two stairways of the approaches and others have been placed along the low parapet at the western limit of the precinct which guards the drop in level to South Stoa I.

A carved marble fountain dated 1872 has been relocated near the southeast corner of the fountain house and connected with the water supply, and the bronze bell of Period IV has been hung near by.

Although the parish has been dispersed, the Feast of the Holy Apostles is still celebrated every year on June 30th, when a procession of former parishioners, clergy, and a military band escorts the icon around the parish and returns to the church by the traditional route of religious processions, the Panathenaic Way.

9 We are indebted to the Fertilizer Company of Athens for donating the glass for the windows, and particularly to Mr. Buell Maben for his help in selecting and obtaining the proper quality of glass.

10 The icon lamp, the hanging lamps of the narthex and some icons that had been hung on the walls of the church were later stolen. Others, including the large main icon, are now in the church of St. Philip. The marble iconostasis of Period IV was donated to the church of the Metamorphosis in New Smyrna.
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