



The Chronology of Some Middle-Byzantine Churches

Author(s): H. Megaw

Source: *The Annual of the British School at Athens*, Vol. 32 (1931/1932), pp. 90-130

Published by: [British School at Athens](#)

Stable URL: <http://www.jstor.org/stable/30096639>

Accessed: 04/12/2010 07:20

Your use of the JSTOR archive indicates your acceptance of JSTOR's Terms and Conditions of Use, available at <http://www.jstor.org/page/info/about/policies/terms.jsp>. JSTOR's Terms and Conditions of Use provides, in part, that unless you have obtained prior permission, you may not download an entire issue of a journal or multiple copies of articles, and you may use content in the JSTOR archive only for your personal, non-commercial use.

Please contact the publisher regarding any further use of this work. Publisher contact information may be obtained at <http://www.jstor.org/action/showPublisher?publisherCode=bsa>.

Each copy of any part of a JSTOR transmission must contain the same copyright notice that appears on the screen or printed page of such transmission.

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.



British School at Athens is collaborating with JSTOR to digitize, preserve and extend access to *The Annual of the British School at Athens*.

<http://www.jstor.org>

THE CHRONOLOGY OF SOME MIDDLE-BYZANTINE CHURCHES

(PLATES 27-31)

	PAGE
Introductory	90
External Evidence.	
§ 1. Documentary	92
§ 2. Epigraphic	95
Internal Evidence.	
§ 1. General Considerations: Introductory—Materials	99
§ 2. Brick Patterns: Geometric—Cufic—Greek Characters—Christological	102
§ 3. Vertical Tiles: Single Tiles—Cut Vertical Tiles	112
§ 4. Horizontal Courses: Tile Courses—Dentil Courses—Cufic Friezes—Greek Frets—Cut Brick Friezes	115
§ 5. Window Design: Form—Stone Dressings—Tympanum Filling—Lateral Semi-arches	120
Conclusion	128
Chronological Table and Index	129

INTRODUCTORY.

Millet has established that the Greek church-builders were in a large measure independent of their contemporaries in the imperial capital.¹ The independent Greek School whose limits he sought to trace reached the peak of its achievement in the two centuries prior to the Latin occupation, and most of the Byzantine churches in Central Greece and the Peloponnesus belong to this period. Millet's approach to these Middle-Byzantine churches was retrospective, his starting-point being Mistra, capital of the restored imperial province. He was interested in the Greek tradition less for its own sake than for its contribution to the later architecture of the last Byzantine 'Renaissance.' While he has endeavoured to resolve the problems which the origins of certain of its characteristic features present, and to gauge its legacy to Arta and Mistra, he has treated more summarily the development within the limits of the eleventh and twelfth centuries. This period is one deserving of particular attention, since its closer study may throw new light on buildings later in date and lying outside the then

¹ *L'École grecque dans l'architecture byzantine* (Paris, 1916). My debt to this invaluable study will be apparent throughout the following pages. I should also like to record my gratitude to Mme. Soteriou and her husband the Director of the Byzantine Museum at Athens for advice and assistance in collecting my material, to Mr. Schultz Weir for permission to reproduce figs. 1 and 2 on pl. 31 from his unpublished drawings and to Mr. H. M. Casson for his photograph of Hagia Mone (pl. 28, 4).

boundaries of the Greek School. Moreover, the intrinsic worth of the Middle-Byzantine monuments demands a better understanding.

Any new estimate of Byzantine architecture in Greece or more detailed study of its development must necessarily be based on an exact chronology. This at present is wanting. The chronological criteria which now obtain are too vague and not infrequently based on quite erroneous premises. Datings suggested on scant evidence when the study of the subject was in its infancy have been too readily accepted in later years. The present article within the limits of the eleventh and twelfth centuries and within a restricted sphere attempts to provide an accurate standard for the dating of the Greek churches. I believe that this is a necessary basis for any scientific study of the subject and hope that it may serve as a starting-point for some more comprehensive survey.

The churches of Athens, Attica and the surrounding country form the nucleus of the group here dealt with, not so much because relatively great importance is claimed for Athens as a centre, but merely because there churches have been preserved in greater numbers than elsewhere in Greece and have, owing to their proximity to the present capital, been most frequently and carefully studied.¹ In order to obtain a series covering the whole period and representing every phase of the architectural development, outstanding churches in Boeotia, Phocis and Argolis have also been included. It has even been found necessary to pass to Elis to find examples of late date to counterbalance the paucity of surviving monuments in or near Athens for the thirty years immediately preceding the Latin Conquest.

Some explanation is due for two notable omissions: Hosios Meletios and Varnakova, with regard to whose foundation we possess historical data, apparently of great value for the chronology of the period.

Hosios Meletios (on the borders of Attica and Boeotia some 7 km. east of the classical Eleutherae). On the advent of Meletios² the monastery was already in existence, but we may reasonably connect some part at least of the present buildings with the alterations and additions which were effected during his lifetime and therefore date from about the year 1100. The church as it exists to-day is a Naos of the usual tetrastyle type with the triple sanctuary projecting to the East, but on the West and South it is

¹ In the ΕΥΡΕΤΗΡΙΟΝ ΤΩΝ ΜΕΣΟΒΥΖΑΝΤΙΝΩΝ ΜΝΗΜΕΙΩΝ, I, 'Αθηνῶν (Athens, 1927 and 1929), the Greek Archaeological Service has published an admirable survey of the Athenian churches which includes full bibliographical notes and a complete series of plans. For elevations and architectural details generally it is unfortunately dependent on previous publications which are incomplete and often inaccurate; consequently, some of the points which I have observed on the churches themselves and which are here recorded for the first time must await confirmation in the first complete publication of the buildings.

² The two *Synaxaria* were published by Vasilievski, *Pravoslavni Palestinski Sbornik*, VI. fasc. 2. Cf. K. Konstantopoulou, 'Η Μονή Ὁσίου Μελετίου (Δελτ. Χριστ. Ἀρχ. Ἐτ., 1924, fasc. 1), 49 ff. and Millet, *Le monastère de Daphni*, 18 ff.

enclosed by an agglomeration of Nartheces, Porches and Chapels differing greatly in style. It has not as yet been systematically examined from the architectural view-point nor is the material so far published sufficient to give a satisfactory impression.¹ This church, apart from architectural considerations, must by virtue of its size and wealth of carved ornament be counted among the most important Middle-Byzantine foundations; but I have omitted it from the present series for fear of confusing the argument with discussions of a building which is still almost unknown.

Varnakova (16 km. north-east of Naupactus). Among the archives of the monastery is a document of the eighteenth century² containing a valuable building record which may be summarised thus:

1077 The Inner Church or Sanctuary of the Theotokos.

1148 The Second Church.

1151 The Eso-narthex.

1229 or 1230 The Exo-narthex.

The first two items are confirmed in a twelfth-century inscription³ over the door between the Narthex and Naos of the present church and there is therefore no reason to doubt the authenticity of the remainder. Unfortunately this precise information is of no assistance to the present study, for the church was blown up by the Turks in 1846 and rebuilt five years later. The only part which survived intact was the Exo-narthex which, dating from the thirteenth century, does not fall within our period. Of the twelfth-century church only a fine mosaic pavement, a few carved fragments of marble and the West wall of the Eso-narthex remain. These are not sufficient to justify inclusion, nor from Orlandos' publication do they seem to present any architectural feature which is not adequately covered by the selected examples.

EXTERNAL EVIDENCE

§ 1. DOCUMENTARY.

1. *HOSIOS LOUKAS, PHOCIS*. Diehl pointed out in his early essay on the monastery that the various traditions referring the building of the churches to the middle of the tenth century fall into two classes.

¹ Plan in Orlandos, *Μοναστηριακή Ἀρχιτεκτονική* (Athens, 1927), fig. 7; photograph from South-East published by Konstantopoulou, *op. cit.* 58, fig. 2.

² Discussed by Lampros, *Νέος Ἑλληνομνημῶν*, VI, 382 ff.; cf. Orlandos, *Ἡ Μονὴ Βαρνάκοβας* (Athens, 1922), 7 ff. It comprises a series of notes in Greek and Italian relating to the early history of the monastery. The bilingual entries do not exactly correspond and it is evident that both Greek and Italian versions are based on a third, much older.

³ *C.I.G.* 8730; published with corrections by Orlandos, *op. cit.* 7.

Those that derive from an anonymous text written evidently in the second half of that century and those that are mainly hypothetical.¹ The latter by their palpable inconsistencies are unworthy of consideration. From the anonymous text we learn that two years after the saint's death (*i.e.* probably in 951) a church, which had been started by the saint himself and was dedicated to St. Barbara, was completed and that over his own tomb an Oratory was built.² Diehl has shewn conclusively that these buildings cannot be identified with the two churches that remain to-day. The authors of the English monograph on the monastery have established by a careful examination of the junction between the two churches that the Katholikon dedicated to St. Luke with the chapel of St. Barbara in a crypt under it is the older. They suggest that it replaced the original church of St. Barbara and that the later and smaller Theotokos church occupies the site of the Oratory.³

The representation of St. Nikon, who died in 998, in the mosaics of the Katholikon seems to favour a date after 1000 for its erection. On the other hand, it has recently been pointed out that St. Meletios, who was one of the most notable figures of the Greek Church in the eleventh century, and still living about the year 1100, is not figured.⁴ This in conjunction with the representation of St. Nikon suggests a date early in the century for the setting of the mosaics, and there is every reason to believe that this followed directly on the completion of the building.

We may conclude then that the Katholikon was probably built in the early years of the eleventh century, the Theotokos later. Yet not much later, for the monks on the completion of the Great Church, realising the anomaly of having two buildings in the same enclosure dedicated to a single saint, would have hastened to transform the older Oratory into a shrine for the ever-popular Theotokos.⁵

2. *DAPHNI, ATTICA.* M. Millet has dated the building of the church in the last years of the eleventh century chiefly on historical grounds. The

¹ Diehl, *L'Église et les mosaïques du couvent de Saint-Luc* (Paris, 1887), 6-7. ² *Ibid.* 8-9.

³ Schultz and Barnsley, *The Monastery of St. Luke of Stiris in Phocis* (London, 1901; henceforth S. and B.), 22. Their interpretation, in so far as it affects the dating of the churches, has since been generally accepted. Cf. Wulff, *Das Katholikon von Hosios Lukas* (*Die Baukunst*, ser. II, 11, 1903), 3-4; *id.*, *Altchristliche und Byzantinische Kunst* (Berlin-Neubabelsberg, 1914), II, 461; Diehl, *Manuel d'art byzantin*¹ (Paris, 1910), 435; *ibid.*² (1925-6), 463.

⁴ Demus and Diez, *Byzantine Mosaics in Greece* (Harvard, 1931), 108. Meletios granted remission of sins with the permission and authority of the Patriarch Nicholas III (1081-1111); *v. supra* p. 91².

⁵ The two sarcophagi in the crypt which tradition associates with the Emperor Romanus II and his wife do not help to date the church. The Emperor in question is known to have been buried at Constantinople in the church of the Holy Apostles. Again the sarcophagi seem to be of different dates in view of their different decoration and they need not necessarily be connected with the founders. Cf. Demus and Diez, 107.

monastery is mentioned in eleventh-century documents and it is unreasonable to suppose that the sixth-century church survived until that time.¹ Most important is the mention in the Life of Meletios of a monk of Daphni who sought in the company of the Cappadocian hermit a more rigid discipline than was to be found in his own monastery, where life seems to have been comparatively lax.² As Meletios' regime is commonly placed in the last years of the eleventh century this would imply a wealthy community at Daphni before 1100. It is probable *prima facie* that the present church, known to be the second on the site, was erected during this period of prosperity. The mosaics are dated on stylistic grounds about the year 1080.³

3. *IOANNES KYNEGOS AND KAIKARIAKNE, ATTICA.* One may assume from the fact that Michael Akominatos⁴ addressed letters to their Abbots that the monasteries of Ioannes Kynegos⁵ and Kaisariane⁶ in Attica were flourishing in the first decade of the thirteenth century and were in all probability founded earlier.

4. *HAGIA MONE, AREIA, ARGOLIS.* An entry in the list of the bishops of Nauplia and Argos mentions one of their number, Leon, as builder of the μοναστήριον τῆς Νέας Μονῆς in 1143-4.⁷ In a *hymnema* preserved in Turin signed by the Bishop and dated 1143 there is further mention of this foundation.⁸ It is described as ἐν τῇ τοποθεσίᾳ τῆς Ἀρείας, which leaves no doubt of its identity with the monastery now known simply as Ἀγία Μονή. The salient points of the text are these: the monastery was previously inhabited by nuns; owing to the proximity of the sea their property and their persons were continually at the mercy of pirates; the Bishop built them a new convent at a place called Βούζη, further from the sea, repaired the monastery at Areia, and in it established a community of monks—τὴν δὲ γε προτέραν τούτων Μονὴν ἀνδρῶν μετεσκευάσαμεν. The entry in the list of bishops together with this passage in a text which bears the same date provide good grounds for dating the church in 1143. Further light is thrown on its erection by an inscription on the church itself (*v. infra* p. 97).

5. *MERBAKA, ARGOLIS.* The one clue in the Turin codex to the position of the convent which Leon founded is its location πόρρω διακείμενον

¹ Millet, *Le monastère de Daphni*, 17. ² *Ibid.* 18 ff. ³ Demus and Diez, 110.

⁴ Metropolitan of Athens 1182-1204. Subsequently exiled in Keos (*d.* 1220).

⁵ Lampros, *Μιχαὴλ Ἀκομινάτου τὰ σωζόμενα* (Athens, 1880), II, 247 and 628 ff.

⁶ *Ibid.* II, 311. Both letters were written from Keos, that to Ioannes Kynegos in 1207, the other two years later.

⁷ Struck, *Vier Byzantinische Kirchen der Argolis* (*A.M.* 1909, 230).

⁸ Miklosich u. Müller, *Acta. Dipl.*, V, 178. The relevant passages are discussed at length by Struck (*op. cit.* 230 ff.).

τῆς θαλάσσης περὶ τὴν τοποθεσίαν τοῦ Βούζη. Struck¹ identified the fine church at the village of Merbaka with the new foundation and dated it in accordance with the historical details a few years before Hagia Mone (*i.e.* circa 1140). In confirmation he points out that Merbaka lies further from the sea than Areia and that the church is dedicated to the Panagia, which corresponds with the words τῆς πανάγνου δεσποίνης ἡμῶν καὶ θεομήτορος of the *hypomnema*.

I do not think he has produced sufficient evidence to prove his hypothesis; I would contest this identification on the following grounds:

1. Merbaka is a parish church and the total absence of remains of dependent buildings makes it extremely unlikely that it was originally a monastic foundation.
2. Though Merbaka is unquestionably further from the sea than Hagia Mone it cannot be said to be any more secure. The monastery is situated in a fold of the hills behind Nauplia, whereas Merbaka lies in the middle of the Argive plain whose pillage would be the first object of any piratical incursions.
3. The situation does not offer the seclusion which is properly associated with the monastic life. Though it cannot be shewn that the village on whose outskirts the church lies was there at the time of its erection, the plain on account of its fertility must always have been thickly populated.
4. Even if Struck's derivation of the present name from William of Meerbeke,² Latin archbishop of Corinth from 1277, is accepted, this is no proof that Merbaka was formerly called Vouzi.
5. The historical facts shew that the Vouzi church was somewhat anterior to the new church at Hagia Mone; all the architectural evidence, as will be shewn below, points to the Merbaka church being considerably later.

6. *SAGMATA, BOEOTIA*. The chrysobullon of the Emperor Alexius Comnenus dated 1106 and preserved in the monastery³ recording a gift of a piece of the true cross naturally leads one to suppose that the monastery, and perhaps the present church, were in existence in that year. Lampros has, however, shewn that the document is a forgery.⁴ For the dating of the church one is therefore entirely dependent on the architectural evidence.

§ 2. EPIGRAPHIC.

1. *PANAGIA LYKODEMOU, ATHENS*. A series of obituary inscriptions is incised on the inside of the south wall of the church near the

¹ *Op. cit.* 233.

² *Ibid.* 236.

³ Miklosich u. Müller, V, 253.

⁴ Νέος Ἑλληνομνήμων, XIII (1916), 363.

west end. Of these the earliest records the death of the founder in 1044.¹

2. *H. THEODOROI, ATHENS.* Built into the west wall of the church are two inscriptions, one of which is dated and reads as follows:

+ Μη(νι) Σεπτεμβρίῳ ἰνδ(ικτιῶνος) γ' ἔτους ,σφνη'

The date (6558) reduces to A.D. 1049 according to the Constantinopolitan era, but this corresponds not to the third indiction but to the second. In the Alexandrian chronology it reduces to 1065, which date, as it answers exactly to the third indiction, must be considered as the correct reading.²

From its position above the main door of the church one would naturally suppose that this inscription commemorates its erection. However, more than one scholar has questioned this assumption, yet without bringing forward sufficient evidence to warrant its rejection. Millet, though he accepted 1049 as the building date for the purposes of his study, suggested that the inscription was not in its original place.³ Certain features of the church doubtless seemed to him precocious for that date, but had the correct reading (1065) been established at the time he wrote they might not have seemed so. There is, however, further ground for suspicion in the adjacent inscription,⁴ the substance of which is that the former church being old and dilapidated a certain Kalomalos re-erected it. Xyngopoulos accepts this second inscription as referring to the building which survives. With regard to the dated inscription he is quite definite that it has no connection with the other, nor with the erection of the church, but was built into it much later and came probably from its predecessor.⁵ This is only a statement of opinion, for he brings forward no arguments to support his claim. The facts are these:

1. *The two inscriptions were built into the church contemporaneously and at the time of its erection.* They are embedded together in a panel disposed symmetrically about the west window. Considered alone the Kalomalos inscription lacks this symmetry. The panel constitutes a feature to which the design of the west gable has been adjusted. The course of which it forms a part lies between the top of the terracotta frieze and the cill of the window and continues from end to end of the gable between brick dentils.⁶ There is no corresponding course on the south gable where the top of the frieze is at the same time the cill of the window.⁷

¹ Ἐφημ. 1853, 937, no. 1589; *C.I.G.* IV, 9336; Antonin, *O Drevnikh Kristianskikh Nadpis'ach u. Afinakh* (St. Petersburg, 1874), 4, no. 4, facsimile pl. iii, no. 4; cf. Millet, *L'École grecque.*, 7¹.

² Ἐφημ. 1854, 1214, no. 2448; Εὐρετήριον, I, fig. 66.

³ *Op. cit.* 7².

⁴ *C.I.G.* 8803; Εὐρετήριον, I, fig. 65.

⁵ Εὐρετήριον, I, 68, 73.

⁶ Couchaud, *Choix d'églises byz. en Grèce* (Paris, 1842), pl. 9. 1.

⁷ *Ibid.* pl. 10, 2; Castellazzi, *Ricordi di Architettura Orientale* (Venice, 1871), pl. 5.

2. *The present building must on grounds of style be dated if not in the eleventh century then early in the twelfth.*¹

3. *If the dated inscription came from the previous church on the site, then this was erected in 1065.*

If our inscription which has been in the present church since its erection does not record its building date, then it must have been taken from some other older building erected in 1065. Naturally one would suppose this to be the previous church which gave place to Kalomalos' building. Now in that case the older church would have been built in 1065 and it is exceedingly unlikely that it would have been already in a state of dilapidation² when Kalomalos started the present church. For that, in the most generous stylistic estimate, cannot have been more than a hundred years after the building of the old church in 1065, and Athenian churches known to be older, such as the Panagia Lykodemou, have survived until to-day in remarkably good condition. Obviously it is unsatisfactory to relate our inscription to the previous church, and if its connection with the existing one is still disclaimed, how else is its presence to be explained?

The two inscriptions were, possibly, cut by different hands, but there is nothing else in either to warrant the acceptance of the one as contemporary with the church into which they are built and at the same time the entire rejection of the other. I shall assume that the present church was erected by Kalomalos in 1065 to replace an older one, and by shewing that this date is absolutely consistent with conclusions based on considerations of technique and style I shall hope to justify the assumption.³

3. *HAGIA MONE, AREIA.* An inscription built into the west wall of the church commemorating its foundation by Leon of Argos is dated 1149.⁴ This in conjunction with the text already discussed suggests that the building of the church was started in 1143 but not completed until 1149.

4. *IOANNES KYNEGOS, ATTICA* (Μονή Ἰωάννου τοῦ Κυνηγοῦ, τῶν Φιλοσόφων). The monastery's second designation, 'of the Philosophers,' connects the three inscriptions found in various places which have been related to it:

I. The inscription on a column which stands a kilometre to the north of the monastery, at the point where the road from Athens crosses the ridge

¹ Some opinions: Mme. Soteriou: eleventh century ('Εφημ. 1931, 137); Xyngopoulos: probably twelfth century (Εὐρετήριον; I, 74).

² The relevant passage in the inscription is:

τὸν πρὶν παλαι(ὸν ὄν)τα σου ναόν, μάρτυς,
καὶ μικρὸν καὶ πῆλινον καὶ σαθρὸν λίαν,

³ For additional note *v. infra*, p. 130.

⁴ Struck, *op. cit.* 229.

into the Mesogeia, recording its erection by one Neophytos.¹ It is dated 1237/8 and is followed by the monogram:

φ
 C φ = φιλόσοφος
 λ

II. An inscription whose provenance is not recorded, now in the Byzantine Museum at Athens (no. 329).² It commences thus:

κεῖται μοναχὸς ἐνθαδὶ Λουκᾶς κτίτωρ
 σὺν φιλοσόφῳ κ. τ. λ.

and ends with the date 1235. Koukoules identifies Neophytos of I with the philosopher of II. But as the column inscription post-dates that recording his burial by two years, Koukoules is forced to conclude that though the column was erected by him the inscription was not cut in it until after his death. This is a possible though not an altogether convincing explanation.

III. A fragment of a templon epistyle found on the Acropolis, now in the Byzantine Museum (no. 204) has this fragmentary inscription:

. . ΟC ΦΙΛΟCΟΦΟC ΤΟ(Υ Ε)ΠΙΚΛΗΝ Ε(ΤΟΥΣ) ,ϚΨΙΓ' (1204/5)

The date is somewhat damaged and Strzygowski misread it as ϚΥΠΓ (974/5), from which he concluded that the present church in the monastery was a tenth-century building.³ Actually such a date is impossible, for the fragment in question is carved with a style of ornament unknown before the twelfth century. But in any case I do not think there is sufficient evidence for relating this inscription to the Hymettan monastery. In the first place, the fact that it was found built into the fortifications of the Acropolis cannot adequately be explained by an assumed shortage of building materials in Athens.⁴ Further, there still remains *in situ* in the church a part of the original templon epistyle.⁵ This has no inscription and differs both in dimension and design from the fragment in the Museum.⁶

It seems that φιλόσοφος may have been the usual epithetical title for a holy man in Byzantine Greece. Strzygowski notes a Μονή τοῦ φιλοσόφου

¹ *C.I.G.* 8752; Kampouroglou, 'Η Στήλη τοῦ Νεοφύτου ἰν Μελέται καὶ Ἐρευναὶ – τὰ Ἀττικὰ (Athens, 1923), 130 ff.; Koukoules, Τὸ Κιόνιον τοῦ Νεοφύτου, Ἐπετηρὶς Ἐτ. Βυζ. Σπουδῶν, Η' (1931), 148 ff.

² Soteriou, *Guide du musée byzantin d'Athènes* (Athens, 1932), 67, fig. 40; Koukoules, *op. cit.* 150.

³ 'Η Μονή τοῦ Κυνηγοῦ τῶν Φιλοσόφων (Δελτ. Ἱστ. Ἐθν. Ἐτ., III, 1889), 121. The three inscriptions have attracted the attention of scholars to the church, which has thus attained a position of importance it does not deserve, for it is small in scale, ill-constructed and of meagre architectural interest.

⁴ *Ibid.* 122.

⁵ Published by Soteriou, Ἐφημ. 1924, 22, fig. 38.

⁶ For additional note *v. infra*, p. 130.

founded in the tenth century near Patras.¹ The possibility of there having been a church with a similar dedication in Athens should not have been overlooked. The inscription on the column of Neophytos is the only one of the three which can reasonably be connected with the monastery in question. For the dating of the church it provides what is plainly a very late *terminus ante quem*, later even than that which we have already derived from Michael Akominatos' letter.

SUMMARY OF EXTERNAL EVIDENCE.

KATHOLIKON, HOSIOS LOUKAS	after 1000.
THEOTOKOS, HOSIOS LOUKAS	after the Katholikon.
PANAGIA LYKODEMOU, ATHENS	before 1044.
H. THEODOROI, ATHENS	1065.
DAPHNI, ATTICA	<i>circa</i> 1080.
HAGIA MONE, ARGOLIS	1143-1149.
IOANNES KYNEGOS, ATTICA	before 1207.
KAISARIANE, ATTICA	before 1209.

INTERNAL EVIDENCE

§ 1. GENERAL CONSIDERATIONS.

Introductory.

A study in comparative chronology is necessarily based on two major assumptions: that at a given time there was unity of technique throughout the area studied and, secondly, that differences of style represent different points in a continuous development. In the present case the justification for these assumptions, contested by at least one distinguished scholar,² is to be found in the particulars regarding the building trade which are given in various Byzantine authors.³ The craftsmen were organised in travelling Guilds (Συνεργασίαι). This in itself would ensure unity of style over a given

¹ *Op. cit.* 122¹. This is Lampardopoulos' foundation at Demitsane. A sigillion of the Patriarch Polyeuctos dated 964 (Ἐφημ. 1854, 1216; Miklosich u. Müller, V. 250) mentions the monastery as recently built; it is now deserted and in ruins. It is unlikely that the small church which Zachos has published (Δελτ. VIII (1923), 59 ff.) belongs to the original foundation. Its dome has features which are not found elsewhere before the twelfth century and it possibly belongs to an even later date.

² Strzygowski à propos of Kaisariane (Ἐφημ. 1902, 62) claimed that difference of style is not interpretable as the result of continually developing technique, but rather as the product of different conditions; the resources of the builder are one controlling factor, the individual taste of the architect another. This view has been disregarded both by later historians of byzantine architecture, and by Strzygowski himself in other fields of research.

³ See especially Choisy's chapter 'L'Art byzantin et les classes ouvrières au bas empire,' *op. cit.* 169 ff.

area at any time ; while, on the other hand, new techniques whether due to isolated experiment or to external influence would with difficulty replace the old, but once embodied in the general tradition would be universally employed.

The considerable variety of plan in churches approximately contemporary seems at first contradictory. The choice of plan was, however, by no means arbitrary ; each church conformed to one or other of about half a dozen types, large and small, which at a given date varied but little through the whole of Greece. The builder no doubt chose from among these according to his resources, and perhaps his individual preference. But there his control ended, he could not break the continuity of a strong tradition. Together with diversity of type there was inevitably identity of structure. So in painting the Byzantine artist retained a single manner for a wide range of subjects. The humblest and most pretentious architectural expressions were framed in a common medium ; technique of structure and ornamentation united them. Architecturally the difference between the rich monastery church and the village chapel is one of degree only, not one of kind.

The plan types remained remarkably constant throughout the period, and the slight variations that are found are never in themselves adequate evidence for dating but rather are apt to lead to erroneous conclusions. The only important developments were in building technique. Here again the analogy with painting is perfect. The iconographic system was rigid, and the work of different periods and schools can be traced more easily in technical progress than in composition. In architecture, then, not plan, but structure ; this is the safest, indeed the only safe clue to the chronology of the period.

Materials.

1. *Stone and Marble.* The characteristic walling of Greek churches was the combination of stone with thin tile-like bricks. Yet frequently on classical sites where cut stone and marble were ready to hand this system gave place to an indiscriminate use of the old materials. The ancient Stiris was evidently the source of the marble blocks of which the Katholikon of Hosios Loukas is largely built.¹ Between these the regularised brick and stone work appears only occasionally. In the Panagia Gorgoepikoös (Little Metropolis) at Athens the usual walling gives place to façades entirely of marble, for the most part old material.² The Boeotian church of H. Nikolaos sta Kampia provides another example of a church faced with

¹ Frazer, *Pausanias*, X, 35, 8 ; S. and B., 23.

² Dating on structural grounds is on this account impossible. The latest of the marble fragments built into the church are of twelfth-century style ; a detailed study of these, the most satisfactory evidence for the dating of the building, is not within the scope of the present article and the church is therefore not included in the chronology.

marble throughout.¹ Here each block has been dressed for its present position and may have been specially quarried. The marble walling of this church may be explained by the lack of clay suitable for brick-making in the district. In churches subsequent to Hosios Loukas when old material is used there is an increasing tendency to regularise it. It is confined to the lower courses or even arranged in a uniform plinth as at Merbaka,² but after the Latin Conquest the material was used in the old haphazard manner.³

2. *Brick.* Walling entirely of brick is found though rarely in Early Christian buildings in Greece, where it seems to be a survival of the Roman tradition.⁴ But it appears in the eleventh and twelfth centuries only where its use can be explained by the influence of the capital. Thus it is found in the apse of the Katholikon of Hosios Loukas and on its north façade in the conch-headed recessions, which are themselves a Constantinopolitan feature.⁵

3. *Brick and Stone.* With these few examples excepted, the instances where brick and stone are used separately are negligible beside those where they are used together. The horizontal courses of stone are in characteristic examples separated by a single or double row of bricks and in each course stone alternates with vertical brick.

The *parement cloisonné*, as Millet has aptly called this system, requires considerable technical skill and a building stone that is easily worked; as a result it is often used only in the upper courses, while at the base of the wall a less careful construction is general. Sometimes this is of rubble, and in this connection it should be noted that the regular *cloisonné* façade is structurally only a facing to a less regular core.⁶ Frequently in the smaller Middle-Byzantine churches the facing is only used to enhance their outstanding features, while elsewhere the walling is of an irregular brick and stone rubble.⁷

Alternatively large blocks of stone or marble roughly squared often occupy the lowest courses. At first they are used without any attempt at

¹ S. and B., 69. A third example is the Vlacherna church near Mezappo in Mani.

² Struck, *op. cit.* pl. X: Millet, *op. cit.* fig. 129.

³ E.g. Panagia near Vatheia, Euboea: *ibid.* fig. 22; Lampakis, *Mémoire sur les antiquités chrétiennes de la Grèce* (Athens, 1902), fig. 85. The church has many features of the architecture which developed under the despots of Epirus, and dates from the second half of the thirteenth century at the earliest.

⁴ E.g. The basilican church and Martyrium at Corinth; cf. *A.J.A.*, 1929, 348.

⁵ S. and B., pl. 6.

⁶ Choisy, *op. cit.* 12. Cf. the interior and exterior views of Christianou: Millet, *op. cit.* figs. 57-58.

⁷ Cf. Kaisariene, where the *cloisonné* system is used only on the east end and the north and south gables (Strzygowski, *loc. cit.* 59, fig. 4 b); Ioannes Kynegos, rubble throughout save in the apse and dome (pl. 28, 2); Omorphē Ekklesia, a plinth of rubble all round the church, elsewhere *cloisonné* (Orlandos, 'Η Ὀμορφὴ Ἐκκλησία, Athens, 1921, figs. 6, 7).

regularity at the Theotokos church of Hosios Loukas and two Athenian examples, the H. Apostoloi and the Panagia Lykodemou. In the Kapnikarea church, however, they are arranged in a regular pattern so as to form a continuous frieze of crosses. The horizontal arms constitute a single course across the façade and the spaces between the vertical arms are filled with smaller blocks with or without the brick surround.¹ An exactly similar arrangement is found at Daphni.² The masonry of the lower courses of H. Theodoroi at Athens has been much damaged and much repaired, but enough remains at the west end to show that a similar motif was used. This is important, for the use of the cross frieze on this dated church suggests a date in the second half of the eleventh century for the few other churches where it is to be seen.

This treatment remains in a modified form in the twelfth century in the dated Hagia Mone.³ But here the crosses are much fewer in number and each stands isolated in the masonry. Similar isolated crosses are in the churches at Chonica,⁴ Amphissa⁵ and the monastery of Sagmata in Boeotia, which on that account belong to the twelfth century rather than to the earlier group.

The regularised combination of brick and stone remained the basic walling system through the two centuries and even survived the Latin occupation. Yet within this constant frame-work it is possible to trace a number of variations which characterise particular periods and distinguish various groups of churches. The system appears fully developed in the Katholikon of Hosios Loukas, the first building of the series, in the upper courses of the north, south and west façades. This presupposes its earlier use elsewhere, but though it is found in one of the few churches which seem to belong to the tenth century⁶ its origin remains a matter for conjecture.⁷

§ 2. BRICK PATTERNS.

The development of brick as a decorative medium in the façade produced the most notable variant of the *cloisonné* system in its simplest form.

¹ This is visible on the south façade, shown though not clearly on two published photographs: Millet, *op. cit.* fig. 75; Struck, *Griechenland I, Athen. u. Attika* (Vienna-Leipzig, 1911), fig. 73; cf. (Weir Schultz) *The Athenian Churches (The Builder 57 (1889), 379 ff.)*, fig. 4.

² North façade: Millet, *Daphni*, pl. VI, 1; south façade before restoration: Schlumberger, *L'Épopée byzantine*, III, 549. This feature has been incorrectly rendered by the draughtsman of Millet's plates IV and V.

³ Millet, *op. cit.* fig. 69; Struck, *Vier Byz. Kirchen der Argolis*, pl. XI, 4.

⁴ *Ibid.* pl. IX, 4 and 5. ⁵ Lampakis, *Mémoire*, fig. 42; Struck, *op. cit.* fig. 8.

⁶ H. Georgios, Alai Bey, near Skala in Laconia. Two photographs have been published: by Millet, *L'École grecque*, fig. 128 (from south); by Mme. Soteriou, *Λακωνικά*, I (1932), 45, fig. 8 (from north-east).

⁷ Cf. Millet's hypothesis, *op. cit.* 228.

In the interspace of mortar between two adjacent stones brick fragments were embedded so as to form a pattern with their exposed ends. The method has been graphically illustrated by Schultz and Barnsley¹ in connection with the examples on the Theotokos church at Hosios Loukas. In Athens the façades of the Theotokos are paralleled in the church of the Panagia Lykodemou. This is the largest of the surviving Athenian churches, and at first sight it seems that this extravagance of ornament was applied only to those few churches where expense was no object. That this was not the case is shewn both by the absence of this treatment in important churches such as Daphni, evidently later, and by its employment in the church of the H. Apostoloi at Athens. The latter is a comparatively small building, and the use on its central dome supports of four classical capitals, no two of which are alike, among other things attests the humble circumstances of its erection. It would seem then that this elaborate brick decoration is to be associated with a particular period.

In the Katholikon of Hosios Loukas, for which external evidence indicates an early eleventh-century date, the patterns, though few, shew that by then the technique had been completely mastered and we must assume that the process originated at an earlier date. Millet derives it from the habit of filling the interstices of irregular masonry with brick fragments.² 'Le maçon s'aperçoit qu'il façonne des lettres et, de l'expédient, il fait un procédé.' It is not improbable that these alternating brick patterns represent the last stage in the evolution of the regular *cloisonné* walling from a rougher rubble masonry.

It is plain that some of the patterns have a christological message, but Lampakis' efforts to discover a religious significance for all of them were doomed to failure.³ It remained for Strzygowski in 1905 to point out for the first time a connection with the flowered Cufic inscriptions of contemporary Islam.⁴ Millet has defined another class which reproduces Greek characters, and a detailed study reveals the necessity for adding a number of smaller groups. These will be considered in what appears to be their chronological order; but only the Cufic group, which is by far the largest and for purposes of dating the most important, will be dealt with in any detail.

I. Geometric.

The forms are determined by the size and shape of the space to be filled and by the ingenuity of the craftsman. They bear no relation to written characters, and the units, which are rarely cut, are arranged in

¹ *Op. cit.* fig. 15.

² *L'École grecque*, 254.

³ Χριστιανική Ἀρχαιολογία τῆς Μονῆς Δαφνίου, Athens, 1889 (henceforth: Lampakis, *Daphni*), 84 ff.; *Mémoire*, 21 ff.

⁴ *Comptes Rendus du Congrès International d'Archéologie* (Athens, 1905), 312. Strzygowski elaborated his thesis in *Amida*, 372 ff.

purely geometric figures. To the two examples at the Katholikon (pl. 30, 46, 47) may be compared three from the church of the H. Apostoloi at Athens (pl. 30, 11, 14, 21). They suggest a stage intermediate between the fillings in rough masonry, which consist of horizontal fragments alone and attempt no ornament, and the regular panels of the systematically patterned façade. A relatively early date for this style is therefore indicated.

II. Cufic.¹

The relation to contemporary Arabic inscriptions is shewn both by the arrangement of the brick fragments in identical figures and by the cutting of the individual units which compose them. A characteristic which the brick patterns and the Cufic models have in common is the beak-shaped head to all vertical members. So close is the connection that it is explicable only by the presence of Arab craftsmen in Greece during the eleventh century. In recent years important evidences have come to light which for Athens at least corroborate this hypothesis.²

The Athenian churches of the H. Apostoloi and the Panagia Lykodemou with those at Hosios Loukas form a compact group which must be placed in the first half of the eleventh century. The Katholikon where the designs are simplest and fewest in number is unquestionably the earliest. All the nine patterns are illustrated on pl. 30, 46-54; of these nos. 48-53 are based on Cufic forms. It will be seen that though the patterns are of greater size than those elsewhere, there has been little attempt at detailed cutting. This fact suggests a relatively early date for the Katholikon.

The two churches in Athens represent a later stage of development; here the technique tentatively employed at the Katholikon has been completely mastered. The motifs used on the latter church are retained but are considerably elaborated. Considerations of detail would indicate an earlier date for the Apostles' church than for the Panagia Lykodemou; the vertical unit cut into two beaks at the top occurs only three times in the patterns of the former (pl. 30, 13, 25 and 37), in those of the latter it is far more frequent and the single beak is exceptional. Representative examples of the Lykodemou patterns are illustrated in pl. 30, 38-41, but there are others³; the series from the H. Apostoloi (1-37) is complete. The Theotokos of Hosios Loukas, where the brick ornaments are marked by a

¹ The term is used to cover all figures which derive ultimately from the early Arabic alphabet, whether they are interpretable as specific Arabic characters or not.

² Notably a series of Cufic inscriptions, cut in Pentelic and Hymettan marbles which epigraphists date within the limits of the ninth and eleventh centuries. The most important of these, from the Asclepieion, records the dedication of a mosque. See Soteriou, Ἀραβικὰ Λείψανα ἐν Ἀθήναις (Πρακτ. Ἀκαδ. Ἀθ., 1929), 266 ff.

³ Cf. A(ntonin), *Khristianskiâ Drevnosti Gretsii*, i, *O Drevnikh Tserkvakh Goroda Afm* (*Zhurnal Ministerstva Narodnago Prosv'eshtcheniâ*, LXXXI (1854), ii, 31 ff.), fig. 13, line 2.

greater intricacy of detail,¹ must also be placed after rather than before the Apostles' church.

Cufic Friezes by Embedding Process. The Theotokos is thrown together with the Panagia Lykodemou by a new technique they have in common, but which being absent from the H. Apostoloi provides a very satisfactory confirmation of its earlier dating. One of the motifs which appears in the patterns of all three churches² is elaborated and multiplied so as to form a continuous frieze in a single course from which the stone blocks are entirely omitted. Such a frieze appears in its simplest form on the north side of the Panagia Lykodemou (fig. 1); the western part has been restored. On the east end of the Theotokos there are three such friezes, one above the other. The central one³ most nearly reproduces that of the Athenian church, the

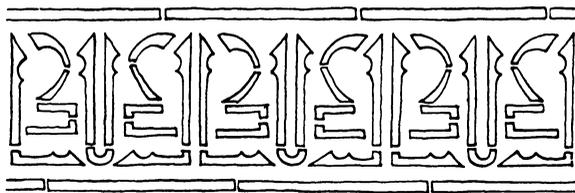


FIG. 1.—PANAGIA LYKODEMOU, ATHENS. CUFIC FRIEZE FROM NORTH FAÇADE.
(Scale 1 : 15.)

lowest⁴ differs only slightly and in the uppermost similar brick shapes are used to form a different, more cursive design.⁵

Cufic Friezes by Champlévé Process. At first sight it would appear that the Theotokos by the complexity of its designs postdates the Panagia Lykodemou. The difference is, however, one of degree only and the elaboration of the former is easily accounted for by its association with one of the most wealthy foundations in Greece. Technical development rather than degree of elaboration is our criterion; it is on account of the appearance of such a development in the Panagia Lykodemou that I would place it after and not before the other church. Where the single frieze passes across the east end the Cufic pattern is achieved by a different process. The units of the design are no longer separate pieces cut to shape and embedded in the mortar. Instead, the design is drawn on a terracotta panel and the background excavated; the panel is then built into the wall so that the surface

¹ S. and B., pl. 11.

² H. Apostoloi: pl. 30, no. 19; Theotokos: S. and B., pl. 11, line 6, No. 7; Panagia Lykodemou: Lampakis, *Daphni*, 84, no. 6; *Mémoire*, fig. 69. It will be seen that the motif is formed by the opposition of two identical characters; this symmetrical reduplication is typical of the Cufic inscriptions which served as models for this style of ornament.

³ S. and B., pl. 11, line 1.

⁴ *Ibid.* line 3.

⁵ *Ibid.* line 2.

is flush with the masonry and finally the background is filled with mortar. Each panel comprises a pair of Cufic characters opposed and elaborated. In part this frieze across the east end maintains the motif of that on the north side,¹ but together with it a new design is found which accords more rationally with the rectangular shape from which it is cut.² That this *champlevé* process was a development of the other can hardly be doubted; by it the effect of the complicated embedding method is reproduced, but with greater economy of labour and added coherence of design.

The absence of this technique from the Theotokos leaves little doubt that it was anterior to the Panagia Lykodemou, while its appearance on a church that is demonstrably later serves to confirm this, if confirmation is needed. The three friezes across the gables of the church of H. Theodoroi in Athens (1065) provide this significant example of the *champlevé* process at a later date. Stylistically the connection with the Lykodemou frieze is not very close, for the examples at H. Theodoroi are rows of independent panels rather than continuous friezes and again their designs include in addition to Cufic both animal and purely ornamental motifs.³ The similar frieze on the west gable of the Lykodemou church⁴ is a modern fabrication as is the gable itself, which is not shown on Couchaud's elevation.⁵ The panel friezes of H. Theodoroi, which are I believe unique, belong more properly to the province of sculpture than to that of brickwork. In this connection it is noteworthy that the *champlevé* technique was one of the characteristics of contemporary carved ornament, and that here too the Cufic element was prominent.⁶

Disappearance of Cufic Patterns. The florid manner in vogue in the first half of the eleventh century characterised by the multiplicity of brick ornaments is followed by a very marked reaction. The intricate patterns which separate the stones give place to a simple vertical tile and the façade acquires a new austerity. The change was evidently not a sudden one but gradual. Even in the Panagia Lykodemou there are certain sober tendencies which are lacking both in the H. Apostoloi and the Theotokos of Hosios Loukas; thus the simple vertical tile is already fairly frequent,

¹ Lampakis, *Daphni*, 85, nos. 9 and 10; *Mémoire*, figs. 72 and 73.

² Lampakis, *Daphni*, 86, nos. 17 and 18; *Mémoire*, figs. 74 and 75. Lampakis' figures are inaccurate in some details; the same *champlevé* frieze has been reproduced, but no more correctly, in Castellazzi, *op. cit.* pl. 41, 2.

³ Soteriou, *loc. cit.* fig. 41; Εὐρετήριο, I, fig. 64. The Cufic panels have lately been deciphered; the readings have not yet been published but, as might be expected, their message is Mohammedan rather than Christian in spirit. Here is another convincing proof of the presence of Arab craftsmen in Athens.

⁴ Castellazzi, *op. cit.* pl. 42, 3; Millet, *op. cit.* fig. 105; Lampakis, *Mémoire*, fig. 88.

⁵ *Op. cit.* pl. 11, 1.

⁶ Cf. the marble string-courses at Daphni: Millet, *Daphni*, fig. 36.

though the pattern is more usual.¹ Another Athenian church, H. Aikaterine² illustrates the more general use of the single tile and thus appears to be later in date. In the masonry of the south gable out of a total of sixteen vertical joints only nine contain patterns (pl. 27, 1); in design these are similar to nos. 4, 8, 17, 22 and 33 of pl. 30. In the Kapnikarea the single tile is the rule. Here there are only six patterns still exposed, two in the south gable (fig. 2, B) and two above (fig. 2, A) and two below the central apse window. The later Exo-narthex at the west and the Parekklesion on the north doubtless conceal others, but in all there were probably less than a dozen. This church falls into the gap between the early group and H. Theodoroi (1065), where there is not a single pattern.

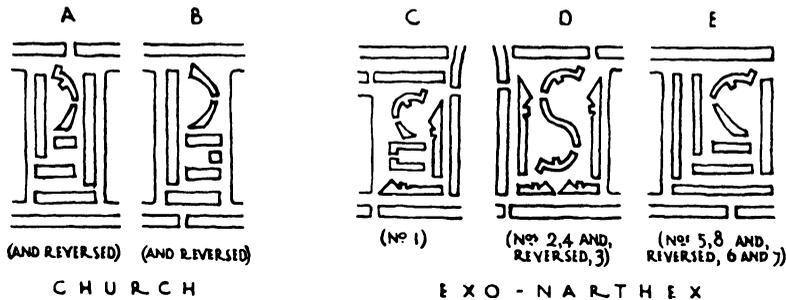


FIG. 2.—ATHENS, KAPNIKAREA, BRICK PATTERNS. THOSE FROM THE EXO-NARTHEX ARE NUMBERED IN SEQUENCE FROM THE LEFT. (Scale 1 : 15.)

In view of the erection of the Panagia Lykodemou before 1044, H. Aikaterine, though evidently later, probably also belongs to the first half of the eleventh century. If the Kapnikarea church is placed about 1050 this leaves an appropriate interval of fifteen years before the dated H. Theodoroi. Daphni, of which Millet has said 'la décoration des façades est d'une extrême sobriété,' like H. Theodoroi has no patterns and naturally falls after rather than before it.

With regard to the Exo-narthex of the Kapnikarea church, it is plainly later than the church proper,³ but at the same time earlier than the South

¹ In the restoration of this church during the last century the western part was refaced without patterns. The original masonry is visible only at the east and in the lower courses of the lateral façades. A(ntonin) evidently saw the church before it was restored, for in illustrating the north Narthex door he shows a pattern in practically every joint of the surrounding masonry where now there is none (*op. cit.* fig. 15).

² Near the Monument of Lysikrates. The plan is of the tetrastyle type (Εὐρετήριον, I, fig. 108). The east end has been plastered and a modern aisle encloses the other three façades so that only in the gables is the masonry exposed.

³ The masonry of the church ends abruptly a little to the east of the South Porch; that of the Exo-narthex does not bond with it.

Porch,¹ whose resemblance to the porches of the twelfth-century churches in Argolis has been noticed.² It has eight patterns on its west façade and these argue for a date prior to H. Theodoroi and Daphni which have none. Again, an examination of these patterns reveals such close affinity with those of the church that they cannot have been set much later. No. 1, from the left of the façade (fig. 2, c) reproduces the figure used in the south gable of the church (fig. 2, B), nos. 5–8 (fig. 2, E) those in the apse (fig. 2, A). Further, the curious ε-shaped unit found in the patterns of the apse, which to my knowledge occurs in no previous church, is used in every one of the Exo-narthex patterns.

Survivals of Cufic Patterns. Outside Athens the tradition of brick designs seems to have survived rather later. The church at Chonika which Struck has judged to be the earliest of the Argive group has four patterns interspersed in its masonry (pl. 30, 42–45). By these it is to be connected with the eleventh-century Athenian series in contradistinction to the neighbouring churches at Plataniti, Hagia Mone and Merbaka which can none of them boast a single example. At Chonika the patterns are no longer a dominant feature in the decorative schemes and unlike those at the Kapnikarea church are not arranged symmetrically above the windows. Instead they only appear where a single tile would be inadequate filling for the occasionally wide intervals in the masonry. Thus Chonika is at once earlier than the other Argive churches and later than the latest in Athens where Cufic patterns are used.

To the four churches published by Struck must be added another: H. Ioannes at Ligourio west of Epidaurus.³ Here are four patterns, three on the north and one on the south façade (fig. 3), and the church must on their account be grouped with Chonika rather than the others. As at Chonika the patterns on the north façade, while approximating to Cufic figures, introduce features in the cutting which are unknown in the eleventh-century Athenian examples.

Ligourio and Chonika must be close in date on account of other features they have in common; both provide important examples of the survival of the Cufic frieze. At Chonika⁴ the embedding process is used in a compact design which reproduces the motif of the Panagia Lykodemou

¹ The ill-adjustment of its masonry to that of the Exo-narthex is plainly visible on the building itself and distinguishable on the published photographs: Struck, *Athen u. Attika*, fig. 173; Millet, *L'École Grecque*, fig. 75: ΕΥΡΕΤΗΡΙΟΝ, I, fig. 55.

² Millet, *op. cit.* 125; Xyngopoulos, ΕΥΡΕΤΗΡΙΟΝ, I, 71.

³ At the east end of the village towards the hamlet Koroni. The plan has been published by Monneret de Villard (*Inedita byzantina (Monitore Tecnico, XVIII 1912)*, 431, fig. 4, whence Millet, *op. cit.* fig. 139) with the title Koroni. Millet by discussing and indexing the church under two names—Ligourio and Koroni—gives the impression that there are two churches where in fact there is only one.

⁴ Millet, *op. cit.* fig. 115, c.

(fig. 1) with the U-shaped feature reduced to a single unit. The frieze is not continuous and the figure is repeated only two or three times on either side of the three doors. In the Ligourio church¹ the same technique is employed in a less elaborate frieze (fig. 3). In both friezes each repeat of the motif is separated from its neighbour by a pair of cut vertical units, a feature unknown to the Athenian tradition of the eleventh century. Indeed, these tentative friezes, which extend for little more than a metre in each case, are less a continuation of that tradition than a later imitation of it.

In the north, the church of H. Soter at Amphissa provides parallel examples of the survival of Cufic patterns in a debased form. They are used in the filling of the tympanum of the north gable archivolt.² The

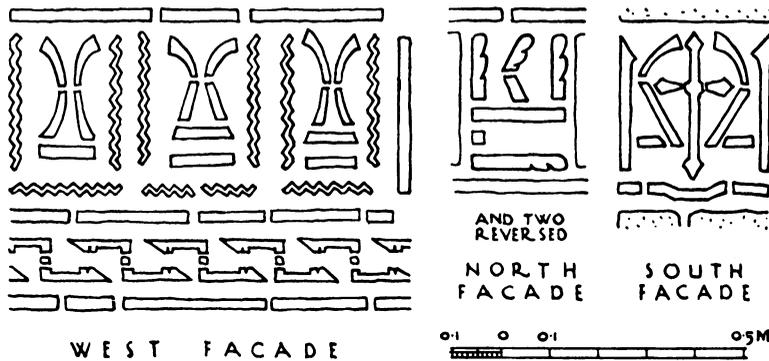


FIG. 3.—LIGOURIO, BRICK PATTERNS. (Scale 1 : 15.)

double figure enclosing a cross also occurs once in each of the attached piers which support this and the corresponding archivolt on the south façade (pl. 30, 56). It derives ultimately from a pattern that is found both at the Katholikon of Hosios Loukas (pl. 30, 54) and the H. Apostoloi (pl. 30, 4). But the repetition of the cut vertical member found at Ligourio shews that this church belongs to the later group.

III. Greek Characters.

In a small number of churches a type of pattern appears in the mortar interspace which bears no relation to Cufic but instead reproduces characters of the Greek alphabet. The most important of these is the Panagia Katholike at Gastoune in Elis,³ where in the lower courses of the north

¹ West façade, actually the inner wall of the Narthex which is a later addition and whose north wall partly obscures the frieze.

² Millet, *op. cit.* fig. 115, a.

³ Published by Traquair, *Frankish Architecture in Greece* (*Journal Royal Inst. of British Architects*, XXXI, 1923-24), 80 ff. For the brickwork fig. 31; cf. Millet, *op. cit.* fig. 114, c.

façade there are about a dozen different patterns. The following letters occur: H, N, Π, T, X; in none of them is there any attempt to elaborate the units by cutting. In the other examples which Millet cites,¹ unpublished with the exception of one in Laconia,² the same letters are found.

For the majority of these Greek characters no reasonable christological interpretation has been found. Bearing in mind that the Cufic designs are purely ornamental and, with the single exception of the panels at H. Theodoroi, cannot be read, it would appear that the selection of the Greek characters was equally arbitrary. The mason was evidently determined in his choice by such considerations as the size and shape of the space to be filled.

A closer examination of the patterns from the churches that have been already considered reveals that some at least belong to this series rather than to the Cufic. The K-figure which occurs both at the Katholikon of Hosios Loukas and in the later examples is as much Greek as Cufic. In addition, among the designs of the Apostles' church one may distinguish A (Pl. 30, 16), I (3, 17), O (8), Π (2) and X (5); of the Theotokos patterns at least one is interpretable in Greek characters.³

The examples of this class of decoration are comparatively rare and it would be rash to draw from them any conclusions for dating even when the closest parallels are found. Their wide distribution presents an interesting problem which will be discussed very briefly. The appearance at Athens of Greek characters among the Cufic suggests that they are survivals of a time when they alone were used but of which no monuments remain. The other churches where this type is still to be seen are widely distributed in Elis and Laconia, Triphylia and Aetolia, so that they can hardly be considered collectively to constitute a single school. It is more reasonable to suppose that they represent a tradition which was at one time common to the whole of Greece. Patterns of this class are frequent in the eleventh-century churches of Kastoria and have been recorded elsewhere in Macedonia.⁴ It is not within the scope of the present study to relate these examples to the Greek School, but they may be mentioned in passing as confirmation of the suggestion that this style of brick decoration was at one time generally employed throughout the Greek peninsula. In Athens that tradition was almost completely supplanted by the Cufic figures. This new style spread to Argolis and to Phocis before it in turn gave place to a more austere technique.

¹ *École grecque*, 257.

² Lampakis, *Mémoire*, fig. 80.

³ S. and B., pl. 11, line 6, no. 2. It seems to be a combination of κ and ω and differs from its neighbours in the simple un-cut units of which it is composed.

⁴ Millet, *op. cit.* 253¹.

In this view the late date of Gastoune ¹ presents no difficulty. By the absence of Cufic motifs we may judge that the west Peloponnese was independent of Athenian influence during the eleventh century and would therefore retain in the twelfth the Greek characters of an earlier period.

IV. Christological.

This group, the starting-point of Lampakis' unavailing research, though much smaller than he imagined, must not be altogether ignored. The cross pattern at Gastoune which both Millet and Traquair reproduce is identical to one of those of the Panagia Lykodemou.² A second cross motif from the latter church ³ is paralleled in Athens itself at the H. Apostoloi (pl. 30, 18) and is closely related to those at Chonika (pl. 30, 45) and Merbaka.⁴ Yet another type is found in the north gable at Amphissa; it is repeated elsewhere in the same church in the piers which support the gable arches (pl. 30, 56). The great similarity between this pattern and that in the south façade of the Ligourio church (fig. 3) cannot be entirely fortuitous. The two churches must be close in date.

The cross patterns are the most frequent of those which can be placed in this class; after the disappearance of the brick patterns from the masonry they were often retained as a feature in the ornamentation of window tympana (cf. *infra*, p. 126). Lampakis related the two star-shaped figures of the Panagia Lykodemou ⁵ to passages in the Apocalypse; ⁶ without questioning this interpretation one may compare analogous patterns on a larger scale at Gastoune (pl. 29, 3) and Merbaka.⁷ Finally, the interpretation of the H. Apostoloi pattern no. 16 as 'Alpha and Omega' is not unreasonable; it is, I believe, unique.

In a single church there are seldom more than one or two of these christological patterns and the group as a whole is small. The churches in which they are found are more safely dated by other considerations. Their wide distribution is significant and rather confirms my hypothesis that before the use of Cufic a single style obtained throughout Greece.

¹ The church has features which connect it very closely with the twelfth-century Argive group (cf. *infra*, p. 127). Millet suggests that these are later additions (*op. cit.* 210⁴), but a careful inspection has revealed to me nothing to support this hypothesis. The whole of the church proper is without question of one period. The Exo-narthex alone is later, as has been indicated on both the published plans: Monneret de Villard, *op. cit.* 432, fig. 7, whence Millet, *op. cit.* fig. 141; Traquair, *op. cit.* fig. 29.

² Lampakis, *Daphni*, 87, no. 20; *Mémoire*, fig. 76.

³ *Daphni*, 87, no. 21; *Mémoire*, fig. 77.

⁴ Struck, *Vier Byz. Kirchen der Argolis*, 207, fig. 2, d.

⁵ *Daphni*, 85, nos. 11 and 12.

⁶ I, 16 and XXII, 16.

⁷ Millet, *op. cit.* fig. 118.

V. Ornamental.

In the Cufic sequence the patterns of the Kapnikarea Exo-narthex were shown to be the latest examples in Athens. Among them nos. 2-4 (fig. 2, D) strike a discordant note; for though the same cut-brick units are used as in the others, here they form an S-figure which has little connection with Cufic characters. In those churches outside Athens where the pattern technique seems to have survived later, non-Cufic designs predominate. The S-figure of the Kapnikarea Exo-narthex is repeated at Chonika (pl. 30, 44) and recalled in a pattern at Amphissa (pl. 30, 55). The seven patterns on the apse of the Amphissa church repeat the three designs illustrated in pl. 30, 55, 57, 58. No Cufic prototypes can be found for these: they are purely ornamental.

The brick figures of Ligourio, Chonika and Amphissa are distinguished from the examples of the eleventh century by a departure from the Cufic types, by increased skill in cutting and by the use of very small units.¹ Indeed the cut brickwork of the three churches is so similar both in style and technique that though far apart these churches must have been approximately contemporary. In view of the complete absence of patterns from the dated Hagia Mone they may not be placed after 1150. On the other hand, differences of design and technique distinguish this group from the eleventh-century examples and it must in consequence belong, if not to the last years of that century, then to the beginning of the twelfth.

§ 3. VERTICAL TILES.

Single Tiles.

It has already been shown that in the Athenian area the first half of the eleventh century witnessed the greatest use of brick patterns, the second half their gradual disappearance. Single vertical tiles take their place, not through any lack of enterprise but evidently owing to a desire for an unbroken and a more dignified façade. At Daphni the pursuit of sobriety is continued by the frequent omission of the vertical tile;² this has been noted as an outstanding feature of Kaisariane, where the vertical tiles appear even less frequently.³ The two churches on this account appear to be approximately contemporary and Kaisariane probably the later of the two. The climax of this tendency, the wall entirely without brick, was reached in H. Nikolaos sta Kampia and again in the Panagia Gorgoepekoös (Little

¹ A comparison of the patterns from the Katholikon of Hosios Loukas and the Amphissa church is sufficient to illustrate the progress in this last respect.

² On the north façade between the arch which marks the transept and the east end, out of a total of 59 vertical joints I counted 31 made without tiles.

³ Millet, *op. cit.* 228.

Metropolis), but to my knowledge nowhere else. This suggests, but does not prove, the contemporaneity of these two churches.

Elsewhere, and throughout the twelfth century the brick was retained; it was, in fact, a structural necessity as a bond between the facing and the rubble core.¹ In a number of small and unpretentious churches the rubble was not faced at all; but where a more distinguished finish was required the *cloisonné* manner was used, and with relentless regularity. The single vertical tile is the rule in the latest Attic examples such as the Omorphe Ekklesia; the Argive churches, including Merbaka, the most elaborate, do not depart from it. Only in Elis is any variation found; at Vlachernai the vertical joints comprise two tiles in each case,² and at Gastoune, where the patterns are wanting, two tiles or even three take their place (pl. 29, 3).

Cut Vertical Tiles.

The cut-brick patterns never returned to favour, but their technique is retained in a final refinement of the *cloisonné* system, viz. the shaping of the

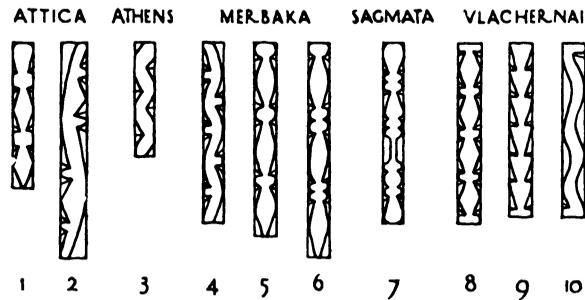


FIG. 4.—CUT VERTICAL TILES. (Scale 1 : 15.)

vertical tile by cutting. This process is used extensively in only two churches, Merbaka³ and Vlachernai, where the cut tiles like the others are found in pairs.⁴ The technique is not, however, limited to the Peloponnese, though elsewhere it is found less frequently.

In Athens itself a small church of H. Ioannes Theologos provides the only surviving example: three tiles in the north gable all of one pattern (fig. 4, 3). In Attica they are not uncommon, being found at the Omorphe Ekklesia⁵ (fig. 4, 1), Hosios Meletios and a church at Kalyvia Kouvara in the Mesogeia.⁶ But only at Sagmata is the detailed cutting of Merbaka

¹ Choisy, *op. cit.* 12.

² Orlandos, Αἱ Βλαχέρναι τῆς Ἡλείας, Ἐφημ. 1923, 22, fig. 36.

³ Millet, *op. cit.* fig. 119, e.

⁴ Traquair, *loc. cit.* fig. 26.

⁵ Three tiles all of the same pattern; two of these are used in horizontal courses.

⁶ H. Petros; cf. Orlandos, Νᾶσοι τῶν καλυβίων Κουβαρᾶ (Ἀθηνά, XXXV), 183, fig. 13.

approached; here a single design is repeated three times in the top course of the central apse (fig. 4, 7). These churches must be fairly close in date and can only be placed in the twelfth century owing to the absence of this treatment in others which are unquestionably of the eleventh.

Similar cut units are often found in conjunction with the latest examples of Cufic patterns. The sinuous figure found at Vlachernai (fig. 4, 10), and, in a more rudimentary form, at the Athenian church (fig. 4, 3), is frequent both at Amphissa¹ and Ligourio (fig. 3) and is heralded much earlier in two of the patterns from the Kapnikarea Exo-narthex: nos. 2 and 3 (pl. 31, 2).² At Ligourio there are in addition several cut tiles isolated in the masonry as in the later churches; two in the south façade are of the type illustrated in fig. 4, 3 and a few others in the south-west face of the dome are of the bead and reel (as in figs. 4, 6) and zigzag (as in fig. 3) types. At the Chonika church the vertical members of the Cufic frieze³ are cut to a pattern closely allied to the bead and reel type of Merbaka and almost identical to that from Sagmata. Ligourio, Chonika and Amphissa constitute a small group which is related both to the earlier period of elaborate brick designs and to the other, evidently later, when a single cut tile remains to represent the former pattern. They mark a transitional stage and establish the chronological continuity of the brick-cutting technique through the two centuries, a continuity which is only broken for a short time in the immediate neighbourhood of Athens by a very evident desire for simplicity in the façade. It has already been seen that these three buildings of the transitional stage must by the style of their patterns be placed in the last years of the eleventh or the first of the twelfth century. The later group: Sagmata, Omorphe,⁴ Vlachernai and Merbaka where

¹ Millet, *op. cit.* fig. 115, a; cf. pl. 30, 56.

² A(ntonin) figures a similar tile among the Lykodemou patterns (*op. cit.* fig. 13, line 2, 2) and in position by the north Narthex door (fig. 15).

³ Millet, *op. cit.* fig. 115, c; incorrectly illustrated by Struck, *loc. cit.* pl. IX, 7.

⁴ The Omorphe examples are actually at the south-east corner of the Parekklesion (Orlandos, 'Η *Ομορφη Ἐκκλησία, fig. 5) and do not necessarily prove a twelfth-century date for the whole building. Orlandos dates the church proper in the eleventh century and maintains that the Parekklesion was a later addition. Apart from the evidence of the cut brick he points out (p. 41) that the south gable window is in part obscured by the roof of the chapel, and secondly that the window in the south wall of the S.W. angle compartment now opens, not to the outer air, but into the Parekklesion (for plan, fig 4; cf. fig. 14). To my mind neither of these arguments is valid. In the first case the gable window is not obscured by the original chapel roof but by that which, as Orlandos admits (p. 42), is a repair dating from the Frankish occupation. With regard to the other window it need only be said that in other churches of this size and type, unencumbered with Parekklesia, windows in this position are rare and it should be noted that at the corresponding point on the north side of the church, the wall is not pierced. The window has plainly been introduced to provide additional communication between chapel and church. Further, the masonry of the east end is uniform throughout and there is no break in its continuity at the point of junction (fig. 7). The Parekklesion window is arched in stone

patterns are wanting can therefore reasonably be placed in the second half of the same century.

The use of the cut vertical tile in the small church of H. Eleousa at Sykaminon in Attica (fig. 4, 2) confirms the above dating for the heyday of the process, for this church must be dated in the early years of the Frankish occupation. Prior to the recent addition of a compartment to the west the church was entered through a door in the south wall, pointed, moulded and hooded in the Gothic manner.¹ I have examined both the doorway and the masonry round it and have found nothing to suggest that it was a later addition. It should be noted that the doorway is not under the centre of the gable but immediately below the south window, which in every detail reproduces that in the apse (pl. 29, 3) and, secondly, that the doorway could not have been inserted at a later date without disturbing this window. It has not been disturbed. The plan,² lacking the niches which do duty for Parabemata in the smaller Greek churches, does not exclude the possibility that the building was erected by Greek masons as the private chapel of some Frankish lord. The doorway and the absence of niches are the only foreign features. The cut tile here illustrated is in the masonry of the apse.

§ 4. HORIZONTAL COURSES.

I. *Tile-Courses.*

So far the discussion of the variations in the *cloisonné* system has been confined to the vertical unit; it now remains to examine the development of the horizontal member of the *cloison*.

The unequal masonry of the Katholikon of Hosios Loukas has not allowed an even coursing of the tiles. In places a single row divides the stonework, while in others three or even four are used. On the apse, where alone the masonry is regular, a double course is the rule. The Theotokos church shews four tiles in each course throughout. In the H. Apostoloi at Athens, though at the base of the wall single brick courses are found, the double row is more frequent and is employed exclusively in the upper courses. The treatment of the Panagia Lykodemou is identical in this respect: below the Cufic frieze single courses, above double (pl. 31, 4).

The grouping together of these four churches put forward on the grounds of their common use of Cufic patterns is again demanded by the

and identical to that of the Prothesis, and like the Bema window it has a bowl built in above it. These considerations combine to prove that the church proper is contemporary with the chapel and therefore dates, on the evidence of the cut tiles, from the second half of the twelfth century.

¹ Orlandos, *Μεσαιωνικά μνημεία Ὁρωποῦ καὶ Συκαμίνου* (Δελτ. Χριστ. Ἀρχ. Ἔτ. IV, 1927), 25 ff., fig. 16.

² *Ibid.* 43, fig. 17.

multiplication of the horizontal tile-course which is found in each. In contrast, all the other churches of the series count only a single row of tiles in each course. The ambitious Daphni as well as the smaller churches in Athens, Sagmata in the north, and in the south the whole Argive group, all maintain this simplest system. But again Gastoune and Vlachernai¹ are thrown together as the two exceptions; in both the double tile-course is the rule (pl. 29, 3).

II. *Dentil Courses (cordons de dents).*

This feature, which is peculiar to the Greek school and does not appear in Constantinople, has received Millet's closest attention.² He makes a strong case for an oriental origin of the process and analyses in detail its use in the Greek churches. Appearing as surrounds to doors and windows, emphasising eaves and verges, and stratifying the façade, the brick dentils do duty for the mouldings of a stone architecture. Their structure³ admits of little variation and conclusions for chronology are limited to such as can be drawn from a consideration of the position in which they are used and the frequency of their appearance in the façade.

The feature was already a part of the Greek tradition when the Katholikon of Hosios Loukas was built; the earliest example of its use, at Skripou, is more than a century earlier. On the east end twin dentils mark the summits of the two storeys and the lowest of the four is continued on the south front.⁴ The climax of the Cufic-pattern style is accompanied by the greatest use of the brick dentil and both fall easily into the first half of the eleventh century. At the church of the H. Apostoloi the window arch springings are linked by a dentil and above this level to the top of the façade every second course contains one.⁵ On the Theotokos at Hosios Loukas there are nine, one in each course above window level.⁶ The more austere façades of the second half of the eleventh century mark a decline. At the Kapnikarea church there are two on the central apse, elsewhere only one (pl. 27, 2); at H. Theodoroi if we except those enclosing the inscriptions and friezes in the gables we can count one only;⁷ at Daphni also there is only one, at cill level.⁸ The Panagia Lykodemou having three, one under the eaves and two at window level, marks the transition. The climax of austerity is emphasised by the absence of dentil courses. On two churches they do not occur at all: Ioannes Kynegos (pl. 28, 2) and Sagmata (pl. 29, 1). With these must be grouped Kaisariane and H. Nikolaos sta Kampia,

¹ Orlandos, 'Εφημ. 1923, 22, fig. 36. ² *Op. cit.* 268 ff. ³ S. and B., fig. 14.

⁴ *Ibid.* pls. 9 and 8, whence Wulff, *Hosios Lukas*, fig. 4; cf. Diehl, *op. cit.* 15.

⁵ Five in all; Rivoira, *Lombardic Architecture* (London, 1910), I, fig. 262; Struck, *Athen u. Attika*, fig. 164; Strzygowski, *Die Baukunst der Armenier*, II, fig. 721; Εὐρετήριο, I, fig. 73.

⁶ S. and B., pl. 9. ⁷ For illustrations *v. infra*, p. 117¹. ⁸ Millet, *Daphni*, pl. V.

where they appear only under the eaves of the dome, and Plataniti, where a dentil is used as a surround to the Bema window, but nowhere else.

With regard to the position of the feature, it should be noted that the dentil surround to the apse windows of the Theotokos church, H. Apostoloi, and the Kapnikarea follows the arch of the windows only and continues round the façade from the springing-point without extending below it. At H. Theodoroi on the parabemata at least the dentil extends rather lower,¹ while throughout Daphni and at Ligourio in the south gable the dentils reach the bottom of the window. This sequence should be borne in mind when dating the churches. At Ligourio the dentil of the apse window is of the less developed type, suggesting that this church is the earliest of the Argive group, for in the other churches the dentils extend to cill level in every case, as at Daphni.

With the appearance of new motifs on the apse the dentil course returns to emphasise them, first at Daphni,² later at Hagia Mone (pl. 28, 3) and Merbaka and accompanies them when they spread to the lateral façades, yet without ever approaching the multiplicity of the early eleventh-century examples. Vlachernai and Merbaka, dated by their cut vertical tiles in the second half of the twelfth century, follow the example of Daphni in having a single dentil course at cill level. To this late group must be added Gastoune, where, window surrounds excepted, the cill dentil as in the other churches is the only one (pl. 29, 3).

III. Cufic Friezes. V. *Supra*, pp. 105-109.

IV. Greek Frets.

The motif first appears, tentative and small, at Hosios Loukas on either side of the apse of the Katholikon.³ Later, at Daphni, it takes a prominent place in the design, crowning the central apse.⁴ This competent example of brick ornament must have had other antecedents in addition to that at Hosios Loukas; none, however, survives in the neighbourhood.

The feature was adopted and developed in Argolis in the twelfth century at Hagia Mone and Merbaka. It does not appear in Ligourio, Chonika and Plantaniti, apparently the earliest churches of the group; of these the first two, though later than Daphni, seem in their Cufic friezes to reproduce earlier models, while Plataniti is small and unpretentious. The example of Daphni is felt only in the later churches. Hagia Mone in the middle of the century adds to the main fret a smaller one below it, but only

¹ Cf. various views of the east end: Couchaud, *op. cit.* pl. 4; Castellazzi, *op. cit.* pl. 4; Rivoira, *op. cit.* I, fig. 36, *Le Origini dell' Architettura Lombarda*² (Milan, 1908), fig. 27; Diehl, *Manuel*¹ (1910), fig. 212; *ibid.*² (1925), fig. 220; Struck, *op. cit.* fig. 168; Εὐμετήριον I, fig. 61.

² Millet, *Daphni*, pl. V.

³ S. and B., pl. 9.

⁴ Millet, *op. cit.* fig. 27.

on the central face of the apse (pl. 28, 3). At Merbaka there is further development, the secondary fret being enlarged and extended to the lateral faces of the apse.¹ This elaboration suggests that Merbaka is the later of the two and dates from the second half of the century. In both churches a single fret is carried round the lateral and west façades (pl. 28, 4). Gastoune provides a final example which connects it with the later of the Argive series. This is in a short frieze above the now walled-up south door; it is of the simplest form and exactly reproduces the figure of the lower fret at Hagia Mone (pl. 29, 2).

V. *Cut-brick Friezes.*

Alternatively to the brick dentil, and like it ultimately performing the architectural function of a moulding, a shallow cut-brick frieze is used. Between two courses of tiles the cut units are embedded in single or double rows in the flush mortar. These friezes are a characteristic feature of the Argolis churches and occur in all those to which I have referred with the exception of the very small Plataniti. The commonest motif is a step pattern; two parallel rows of tiles have their ends connected by a small brick fragment or by a cement of powdered brick before the mortar is finally pointed.

The motif occurs in its simplest form in Athens on the Kapnikarea church in a horizontal frieze immediately above the arch of the central south door (fig. 5, A). The unit here used is found in the earlier Panagia Lykodemou in the Cufic ornament above the Bema window (pl. 31, 4). The Kapnikarea frieze is exactly repeated in the Exo-narthex of the same church in the spandrels of the lower windows. Here is further proof that the original church and the addition are not only close, but very close in date. With the Kapnikarea friezes may be compared that formerly above the north gable window of the church at Aulis in Boeotia.² As at the Kapnikarea the importance of this frieze in the decorative scheme is small.

At Ligourio (fig. 5, B) and Chonika³ (fig. 5, C) the step-pattern is associated with a Cufic frieze and the characteristic beak of the Cufic figures is introduced. Hagia Mone repeats the Chonika step-pattern but geometricises the units which compose it (fig. 5, D). In the Merbaka frieze (fig. 5, E) the step figure is lost, though the same unit is retained in the

¹ Millet, *op. cit.* fig. 118.

² Lampakis phot. 1846. This fine church was demolished and replaced by a wooden-roofed chapel in 1914. The large and equally spaced windows recall Daphni; the masonry, though like Daphni in having no brick patterns, is less regular, which suggests a somewhat earlier date. Lampakis' photograph has been published by Mme. Sotiriou ('Εφημ. 1931, 138, fig. 15), who proposes another limit for the dating of the church: 'not earlier than the beginning of the eleventh century.'

³ Struck, *Vier Byz. Kirchen der Argolis*, pl. IX, 7; Millet, *op. cit.* fig. 115, c.

upper of the two rows. Unlike the other examples, the units of both rows here point in the same direction.¹ These departures suggest a later date, and other differences point to the same conclusion. At Chonika² and Hagia Mone³ the cut frieze is used to emphasise the cill moulding of the east end; at Merbaka it does not occur at this point. Again, while the two former maintain a single design throughout, at Merbaka a second pattern is introduced (fig. 5, F). This *disepsilon* figure recurs at Vlachernai,⁴ as does the stepped frieze (fig. 5, G). In addition at Vlachernai there is a simpler zigzag pattern formed of a continuous row of single tiles (fig. 5, H). The friezes of this church exactly reproduce the cutting of a vertical tile frequent

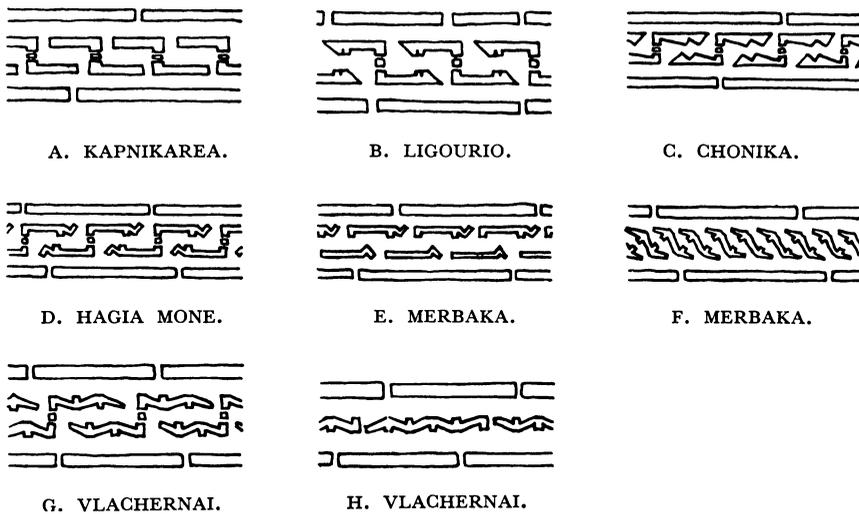


FIG. 5.—CUT-BRICK FRIEZES. (Scale 1 : 15.)

at Merbaka (fig. 4, 4) and thus illustrate at once the unity of the cut work whether in vertical or horizontal joints and the contemporaneity of the two churches.

In Athens no example of the cut frieze survives apart from those of the Kapnikarea church, but Couchaud recorded two in the dome of the Megale Panagia, demolished in 1885 to facilitate the excavation of the Stoa of Hadrian. The detail which he published⁵ shews the dome archivolts springing from a cut-brick frieze of the simplest zigzag pattern, similar to fig. 5, H but without the protrusions in the re-entrant angles. The second

¹ The mortar is of inferior quality and has so disintegrated that it is impossible to discover if the two rows were connected by smaller fragments or not.

² Struck, *op. cit.* pls. VII, 1, IX, 6.

³ *Ibid.* pl. XI, 5; cf. Diehl, *op. cit.*¹ (1910), fig. 210; *ibid.*² (1925), fig. 218.

⁴ Orlandos, 'Εφημ. 1923, 22 fig. 34; Millet, *op. cit.* fig. 119, c.

⁵ *Op. cit.* pl. 3, 4.

example is used as a surround to each of the window arches. In this case the units seem to be of the *disepsilon* form and their position recalls the similar frieze at Merbaka which arches over the east windows.¹ The cut friezes at Hosios Meletios can only be mentioned here; their study will facilitate the dating of the building they adorn.

In the Kapnikarea church, Ligourio and Chonika the motif is tentatively used, the frieze extending for not more than a distance of two or three feet in each case; this suggests a relatively early date. In Hagia Mone, Merbaka and Vlachernai it is used systematically throughout the building. At the small church of H. Eleousa at Sykaminon, which as we have seen (p. 115) belongs to the early years of the Frankish occupation, there is a cut-brick frieze of the *disepsilon* type on the apse (pl. 29, 4). We must conclude that the cut-frieze was a characteristic of the Attic tradition at the close of the Middle-Byzantine period.

§ 5. WINDOW DESIGN.

A short examination of the developments in window design will serve to check the conclusions which have already been reached, and will in some cases permit their further definition.

I. Form.

1. *Arcade Type.* Each light of a double or triple window is arched separately in brick. The type recalls the window arcades of Early Christian basilicas,² while the use of similar windows at Skripou³ establishes the continuity of the tradition. There are notable examples in the Katholikon of Hosios Loukas in the lower series of the east end.⁴ This type is used exclusively in the H. Apostoloi at Athens,⁵ while in the Theotokos of Hosios Loukas is departed from only in the dome.⁶ In two other churches the arcade window is used, but in conjunction with other forms. The Panagia Lykodemou follows this type only in the windows of the west front⁷ and some of those of the lateral façades;⁸ Kapnikarea only in the east windows (pl. 27, 2). At H. Theodoroi and Daphni this form is not used at all.

The arcade type seems to have been in greatest use during the early

¹ Millet, *op. cit.* fig. 118.

² E.g. Panagia Acheiropoietos (Eski Djouma), Thessalonika; see Diehl, *Le Tourneau et Saladin, Monuments chrétiens de Thessalonique*, pl. IV.

³ See my drawing in 'Εφημ. 1931, 124, fig. 5.

⁴ S. and B., pl. 9.

⁵ Three-light window in the Bema, two lights elsewhere; for illustrations *v. supra*, p. 116⁵.

⁶ S. and B., pls. 9, 10.

⁷ Couchaud, *op. cit.* pl. 11, 1, whence Εὐρετήριον, I, fig. 79.

⁸ North façade (five windows, four of arcade type): Couchaud, *op. cit.* pl. 12, 1, whence Wulff, *Hosios Lukas*, fig. 10, and Εὐρετήριον, I, fig. 82. South façade (six windows, five of arcade type): Rivoira, *Lombardic Architecture*¹ (1910), I, fig. 279.

years of the eleventh century, but towards its close it tended to disappear. It is only reasonable to suppose that its disappearance was gradual. This is very well illustrated in the buildings themselves if the above sequence is retained (Apostoloi- Theotokos- Lykodemou- Kapnikarea- H. Theodoroi-Daphni), and there is thus good reason for retaining it.

Occasionally in small churches of later date where the more elaborate forms were out of the question the arcade window survives.¹ The use of this type is not, of course, in itself sufficient evidence for dating a church in the first half of the eleventh century; though the broad apse window of three equal lights does not seem to have outlived that period by many years.

2. *Grouped Type.* The whole window is embraced in a single arch within which the individual lights are arched separately. In origin the surrounding arch was probably structural, but ultimately the grouped window became primarily a decorative feature and assumed an æsthetic function which the severely utilitarian openings of the arcade type could not attempt. Both double- and triple-light windows are found, but there is no need to draw a distinction between them as the difference is one of scale, not style.

The grouped window appears evidently for the first time in the Katholikon of Hosios Loukas in conjunction with features which Millet recognises as characteristically Constantinopolitan,² and one might suspect that the surrounding arch was also an importation. The grouped window seems, however, to be an innovation of the Greek school, for neither in the capital nor in Thessalonika is there a single example demonstrably earlier than the Katholikon. The example of this church is not followed in the Theotokos save in the dome, not at all in the H. Apostoloi. The introduction of the surrounding arch at the Katholikon is undoubtedly to be explained on structural grounds. The windows are unusually broad and the arch was introduced to relieve them of the weight of wall above by deflecting it to either side. The absence of the grouped window at the H. Apostoloi and the Theotokos is thus satisfactorily explained by their smaller scale.

The Panagia Lykodemou seems to mark the general adoption of the

¹ Kaisariene south gable (Strzygowski, 'Εφημ. 1902, figs. 1, 4a, whence Wulff, *Altchr. u. Byz. Kunst* II, fig. 358), Ligourio (apse window) and some minor Athenian churches. In all these the windows have two lights, never more. Note too that in certain church annexes, such as the Kapnikarea Exo-narthex, the desire for a more open treatment has resulted in a return to the broad double arcade-window (Couchaud, *op. cit.* pl. 14; Castellazzi, *op. cit.* pl. 71; for other illustrations *v. supra*, p. 108¹), or, as in the case of the west porch at Hosios Meletios, to the true arcade opening to the ground. But such annexes lie really outside the main current of church-building here examined; they are few in number and presented problems of design not met with in the churches themselves. They have thus an individual quality which contrasts sharply with the peculiar homogeneity of the church series as a whole.

² *Op. cit.* 206.

type; in addition to the three east windows, it has further examples on the lateral façades.¹ Here the structural explanation is not so plausible and one may assume direct imitation of the Katholikon windows for æsthetic reasons.² Subsequently the grouped window gradually displaced the arcade type; first in the gables of H. Aikaterine (pl. 27, 1) and the Kapnikarea church,³ which are thus close in date; later at H. Theodoroi⁴ and Daphni throughout the whole building. In the twelfth century this type was used almost exclusively.

There is an important development in the form of triple windows. First in the Bema window of the Panagia Lykodemou, following the example of the H. Apostoloi and the Theotokos of Hosios Loukas, the three lights remain of equal height, leaving a large tympanum inside the enclosing arch (pl. 31, 4). At Daphni, however, the central light rises above the others and reaching the crown of the outer arch practically fills the whole tympanum. This form of grouped window is not found in any church which can be proved anterior to Daphni, nor is there any example of the transition from the Lykodemou type. At Daphni the new form is fully developed and used consistently throughout the church,⁵ and though one might expect to find tentative examples elsewhere it is not impossible that the innovation dates from this building.

The windows of the twelfth-century churches, whether in brick or stone, double or triple, all with one exception⁶ conform in the main lines of their design to the Daphni types.⁷ The chronological sequence which I have proposed for these later churches can be only confirmed by considerations of materials and detail.

II. Stone Dressings.

During the course of the twelfth century stone takes the place of brick in window construction. The lines of the brick types are closely followed, large blocks are used and often no attempt is made to accord to the struc-

¹ East windows: Couchaud, *op. cit.* pl. 11, 2; cf. my pl. 31, 4. Lateral façades: *v. supra*, p. 120⁸.

² The architectonic affinity of the two churches also suggests imitation (Millet, *Daphni*, 53), while the use in some of the windows of the later church of a true column instead of a shaft, a feature rare elsewhere outside the Katholikon, points to the same conclusion.

³ West gable window: Castellazzi, *op. cit.* pl. 71; Εὐρετήριο, I, fig. 55. South gable window: *v. supra*, p. 108¹.

⁴ For illustrations *v. supra*, p. 117¹.

⁵ Millet, *Daphni*, fig. 27 and pl. V.

⁶ Gastoune; both the Bema window (pl. 29, 3) and that in the south gable (pl. 29, 2) follow the earlier type with three equal lights.

⁷ The grouped window with the raised centre light survived the Frankish occupation and was still in use during the sixteenth century to judge by the examples in the Katholikon Exo-narthex at Hosios Loukas, erected in 1582 but removed during the last century: Wulff, *Hosios Lukas*, pl. II, 2; S. and B., fig. 11.

tural lines of voussoirs. The gradual adoption of the stone window-dressings is well illustrated in the Argive churches. At Ligourio there is no stonework, at Chonika and Plataniti it is confined to the Bema window, whereas at Hagia Mone and Merbaka stone dressings are used in all three east windows. In addition, the entrance doors of the two last churches are framed and arched with marble. Hence it would seem that Ligourio is the earliest of the group, Hagia Mone and Merbaka the latest.

In addition to H. Nikolaos sta Kampia, two other churches have stone dressings in all the windows: Sagmata (pl. 29, 1) and the Omorphe Ekklesia. In the Hagia Mone the brick dressings are displaced only at the east end; on this account Omorphe and Sagmata appear to be later and therefore probably date from the second half of the century. Amphissa, where only the east windows are framed in stone (pl. 28, 1), is certainly anterior to them. None of the surviving Athenian churches has stone or marble window-dressings; but Couchaud in illustrating the dome of the demolished Megale Panagia,¹ where the windows are arched in stone, has shewn that they were not unknown. In Attica they are fairly common; those at Sykaminon (pl. 29, 4) are important owing to the late date of the church.

The moulding of the stone architrave shows little variation. That at H. Nikolaos has been illustrated by Schultz and Barnsley,² who noted a close similarity with those at Sagmata.³ Hagia Mone and the Omorphe Ekklesia show no development in this respect. Merbaka alone departs from the type; the Bema window is covered with a much more elaborate circular moulding which rests at either side on attached colonnettes with capitals and bases.⁴ This variation is understandable only if the later dating of the church is accepted.

Simultaneously with the introduction of stone as an element in window construction it appeared elsewhere in the building, notably as a cornice at the head of the wall under the eaves and verges. In this position a dentil-cornice⁵ was general in the eleventh century, even in late examples such as H. Theodoroi (pl. 31, 3) and Daphni. During the period of greatest simplicity, which there is good reason to place about the year 1100, the cornice is omitted altogether; for example at Kaisariane,⁶ Ligourio and Plataniti.⁷ A single church which has been placed in the early years of the twelfth century, Amphissa (pl. 28, 1) retains the dentil cornice. Elsewhere the stone cornice is the rule; to the examples which Millet cites⁸ may be added Chonika,⁹ Ioannes Kynegos,¹⁰ Sagmata (pl. 29, 1) and of course H. Nikolaos sta Kampia.

¹ *Op. cit.* pl. 3, 1; whence, Εὐρετήριον, I, fig. 93.

³ *Ibid.* 69¹.

⁵ 'Corniche de dents'; cf. Millet, *op. cit.* 266 ff.

⁷ Struck, *op. cit.* 192, fig. 1.

⁹ Struck, *op. cit.* pl. VII, 1.

² S. and B., fig. 45, A.

⁴ Millet, *op. cit.* fig. 118.

⁶ *Ibid.* fig. 106.

⁸ *Op. cit.* 267.

¹⁰ Apse and dome only; cf. pl. 28, 2.

Exceptionally at Gastoune, a church which has been placed in the second half of the century, the dentil cornice is retained and brick is used exclusively in all the windows (pl. 29, 2, 3). This presents no difficulty if it is remembered that the church stands in the centre of the plain of Elis where stone of any kind is hard to come by, let alone one that can be worked to a satisfactory finish. This no doubt is the explanation of another curious feature of this church, namely, the multiplication of the vertical and horizontal tiles at the expense of the stonework. This treatment is found elsewhere in the twelfth century only at Vlachernai, also in Elis only a few miles from Gastoune, and therefore subject to the same geological limitations.

III. *Tympanum Filling.*

In the filling of the space between the subsidiary arches of the individual lights and the relieving arch which embraces them it is possible to trace a general development during the two centuries and to distinguish characteristics of particular periods.

At the Katholikon of Hosios Loukas the broad Constantinopolitan windows leave a large spandrel, but the decorative potentialities of this field do not seem to have been realised. The filling is in some cases of rubble,¹ in the upper west windows of regular *cloisonné*² and in the east of horizontal courses of tiles.³ This diversity points to the conclusions that at the time of the building of the church the motif was a recent innovation and that it was introduced to supply a structural rather than an æsthetic need.

The Panagia Lykodemou provides the earliest examples of grouped windows in essentially Greek work. As might be expected, the tympana have nothing in common with those of the Katholikon, which are tentative and, it would seem, relatively early. That of the Bema window (pl. 31, 4) comprises three circular sinkings each covered with a small arch, the smaller lateral windows have similar sinkings but only one in each case. In all three windows the remaining space inside the relieving arch is filled with cut-brick units forming Cufic figures. The gable windows of H. Aikaterine⁴ exactly reproduce the smaller windows of the Lykodemou church (pl. 27, 1). Here too the small remaining spandrels were probably filled with Cufic brickwork; they are at present obscured by plaster.

During the period of decline in the use of Cufic patterns in masonry they remained the typical ornament of window tympana; there are good examples in the gable windows of the Kapnikarea. Even after its complete disappearance from the masonry Cufic brickwork was retained as a tym-

¹ *E.g.* a window on the north facade; S. and B., fig. 17.

² *Ibid.* pl. 7.

³ *Ibid.* pl. 9.

⁴ The east windows of this church have been walled-up and plastered.

panum ornament: notably at Aulis, the north window of the Prothesis,¹ H. Theodoroi at Athens, both in the windows of the east end² and in six out of the eight in the dome,³ and at Daphni in the south aisle window. Lampakis published the two patterns from the Daphni window without any indication of their architectural context.⁴ The latest examples of Cufic brickwork such as those at Amphissa which have already been discussed in detail above, though not actually in tympana, are closely associated with windows. Their survival is the more understandable on that account. Finally may be mentioned the use above the arches in the crypt of H. Nikolaos sta Kampia of cut-brick units similar to those used in Cufic work, but here without any attempt to reproduce Cufic characters.⁵

Ultimately the Cufic element disappears entirely and a purely geometric filling takes its place in the tympana. At Daphni, with the exception of the one window already mentioned, the fillings are of uncut bricks bedded horizontally and vertically in simple geometric patterns.⁶ These are strikingly similar to the brickwork in the four gables of the Kapnikarea Exo-narthex (pl. 31, 1 and 2). This affinity suggests that Daphni cannot be much later than the addition to the Athenian church, which is on stylistic grounds anterior to its near neighbour, H. Theodoroi, 1065 (*v. supra*, p. 108); Daphni could then hardly be later than 1080. Occasionally the Daphni type with horizontal and vertical tiles is followed; one can instance the north window of Ioannes Kynegos (pl. 28, 2) and compare a second tympanum filling in the crypt of H. Nikolaos.⁷ Much more common is a curvilinear form; here the tile-courses follow concentrically the curve of the subsidiary arches and the individual units are themselves curved. One of the best examples is the Bema window of Kaisariane;⁸ in a more rudimentary form the same filling is found at H. Theodoroi (pl. 31, 3). The examples at Chonika⁹ are typical. The curvilinear filling seems to have remained in use until the introduction of stonework left no tympanum to be filled. Thus at Hagia Mone, where only the west windows are stone-dressed, the curved brick filling is used elsewhere.¹⁰ The north gable window of the Omorphe Ekklesia shows an unusual combination of brick and stone; here the two subsidiary arches are built in stone, but the tympanum above them is of brick and follows the curvilinear type.¹¹ Finally, at Gastoune, which dates evidently from the time when stone dressings were general

¹ This feature, clearly visible on Lampakis' negative, is barely distinguishable in the reproduction: 'Εφημ. 1931, 138, fig. 15.

² (Weir Schultz), *op. cit.* 381, fig. 7.

⁴ *Daphni*, 84. nos. 2, 3; *Mémoire*, figs. 78, 79.

⁶ Millet, *Daphni*, fig. 27.

⁸ Strzygowski, *op. cit.* fig. 7b; Lampakis, *Mémoire*, fig. 49; Millet, *op. cit.* fig. 106.

⁹ Parabemata windows; Struck, *op. cit.* pl. VII, 1.

¹⁰ *Ibid.* pl. VIII.

¹¹ Orlandos, 'Η Ὁμορφὴ Ἐκκλησίας, fig. 11.

³ Millet, *op. cit.* fig. 96.

⁵ S. and B., fig. 47, a.

⁷ S. and B., fig. 47, b.

elsewhere, there is a good example of the curved brick filling in the Bema window (pl. 29, 3).

The continuity of these tympana fillings is often broken by the insertion of a central motif. In the west gable window of the Kapnikarea church the Cufic patterns are interrupted by a flowering cross which is similar to that of the Panagia Lykodemou.¹ In the east window of Ioannes Kynegos there is a simpler cross motif exactly paralleled at H. Nikolaos sta Kambia in one of the tympana of the crypt.² This in addition to the general similarity of design in the tympana of the two churches suggests contemporaneous building. The cutting of these crosses is identical to that of a cross-pattern at Amphissa (pl. 30, 56), than which church they cannot be much later. A brick cross above the Bema window at Gastoune (pl. 29, 3) shews that the motif survived to the end of the period.

More common as a tympanum ornament is a glazed bowl set in mortar. This form of decoration was general during the twelfth and following centuries and in the eleventh was by no means unknown. For we may safely assume that the circular sinkings in the tympana of the east windows of the Panagia Lykodemou, now filled with modern plaster reliefs, originally contained bowls (pl. 31, 4); the similar sinkings in the windows of H. Aikaterine have bowls *in situ*, but these are modern. At H. Theodoroi this ornament is generally used,³ but unfortunately few of the original bowls have survived and these are much damaged. Bowls occur in every instance where the curvilinear tympanum filling is used; even in stone-dressed windows they are not unknown⁴ and once, at Merbaka, they are introduced into the masonry.⁵ Many of these bowls are contemporary with the churches into which they are built; their importance for the chronology of Byzantine pottery has been hinted at but never systematically examined.⁶

IV. *Lateral Semi-arches.*

Millet's shrewd remarks on this feature⁷ need only be summarised here. There are two distinct groups:

1. *Associated with an archivolt.* This type derives ultimately from the division of an open semi-circular tympanum by two columns or piers and as in the prototype the lateral compartments remain open. Rarely found in Greece, it is evidently a Constantinopolitan feature. To the com-

¹ Lampakis, *Daphni*, 87, no. 20; *Mémoire*, fig. 77.

² S. and B., fig. 47, b.

³ West gable: pl. 31, 3. South gable: Couchaud, *op. cit.* pl. 10, 2; Castellazzi, *op. cit.* pl. 5. Central apse: *v. supra*, p. 117¹, and add (Weir Schultz), *op. cit.* 381, fig. 7.

⁴ Merbaka, Parabemata windows (Struck, *op. cit.* pl. VI, 2); Omorphe Ekklesia (Orlandos, *op. cit.* figs. 7, 11).

⁵ Millet, *op. cit.* fig. 118.

⁶ Cf. Talbot Rice, *Byzantine Glazed Pottery*, 16.

⁷ *Op. cit.* 207 ff.

promising example at the Katholikon of Hosios Loukas cited by Millet¹ may be added two others much more workmanlike: the north and south gable windows of H. Nikolaos sta Kampia² and that in the west gable of the Amphissa church (pl. 27, 4). In both examples the small spandrels between the arches and the archivolt are filled with curved tiles in concentric courses. This identity of treatment suggests proximity in date.

2. *Associated with a gable.* The lateral semi-arches here fill the angles, are blind and support a single central window which is sometimes subdivided. The following evolution may be traced:

Kapnikarea Exo-Narthex. A small semi-arch, in some cases hardly more than a quarter-circle, supports the single window of each of the four gables (pl. 31, 1 and 2).

The motif is repeated at this undeveloped stage in each of the four gables of the small church of H. Georgios near Loukisia in Boeotia (pl. 27, 3). The gable windows of another Boeotian church, H. Nikolaos at Aulis, though much larger were similarly adorned with a small quarter-circle at cill level on either side.³

H. Theodoroi, Athens. In the south and west gables the quarter-circles are raised to the level of the springing of the window arches and the enclosing arches are doubled (pl. 31, 3).

Hagia Mone. The quarter-circle at springing level is enlarged to a semi-arch by dropping its cill, but this is stopped above the level of the central window (pl. 28, 4).

Merbaka. The feature is further enlarged so that its cill is level with that of the window.⁴

If the above order of these churches is altered the development of the motif can no longer be rationally traced. It is, therefore, reasonable to suppose that this order represents their correct chronological sequence.

Gastoune. The semi-arches of the south window reproduce the Merbaka type (pl. 29, 2) and must on that account be placed in the second half of the twelfth century. Bearing in mind the absence of the cut vertical tile by which it is shown anterior to Merbaka and Vlachernai, one can only date it in the third quarter of the century.

As might be expected, the brickwork filling of the semi-arches closely follows the development of the tympanum filling. In the most northerly gable of the Kapnikarea Exo-narthex there are cut-brick patterns (nos. 2-3, pl. 31, 2). As this type of filling does not recur in any of the other examples of this feature this is a satisfactory confirmation of its earlier dating. The

¹ *Op. cit.* fig. 104; S. and B., pl. 8, whence Wulff, *op. cit.* fig. 4.

² S. and B., pl. 58.

³ Εφημ. 1931, 138, fig. 15; cf. *supra*, p. 118².

⁴ South gable: Struck, *op. cit.* 206, fig. 3, pl. X, 4; Lampakis, *Mémoire*, fig. 91. North gable: Struck, *op. cit.* pl. X, 5; cf. Diehl, *Manuel*¹ (1910), fig. 211, *ibid.*² (1925), fig. 219.

other gables of the Exo-narthex (pl. 31, 1), H. Theodoroi (pl. 31, 3) and the Argive churches, favour a simpler filling of tiles in parallel courses which corresponds to the curvilinear type of the tympana. Bowls are used at Loukisia (pl. 27, 3) and Gastoune (pl. 29, 2).

CONCLUSION

The conclusions from the foregoing considerations are summarised in the accompanying chronological table. The figures printed in heavy type indicate the pages where my chief arguments are to be found. These arguments derive from the sequence of building technique, the safest index of development in architectural style. That sequence in turn has been traceable with certainty, thanks to the existence of a few churches whose dates are fixed by incontestable external evidence—evidence which was summarised at the beginning (*supra*, p. 99) and is my ultimate authority. But identity of technique in one feature alone has not been considered sufficient justification for placing two churches in the same period, and confirmation has in each case been sought in other considerations. Consequently the buildings that are here related to each other have been examined from several different view-points; each approach has led to the same conclusions.

In the table the names of the most important churches are printed in capitals. The remainder, being smaller and simpler, have inevitably fewer outstanding architectural features for which parallels may be sought, so that the dating in these cases is less certain. In no case, however, is there any doubt of the church being placed in the correct quarter-century; and the order of the churches within these subdivisions is throughout consistent with all the data now obtainable.

In addition to the evidence of building technique there is a parallel body of evidence not yet available for consideration. This I have hinted at in connection with the Panagia Gorgoepkoös. This church and many others which have been discussed are furnished with carved ikonostases, door architraves and capitals which are in most cases contemporary with the surviving buildings. The carved ornament of the Middle-Byzantine period has not as yet been systematically studied from the chronological point of view; when this is done the carved details of the churches in question may greatly facilitate the dating of their architectural context.

The appended table should therefore be regarded not as in itself conclusive but as contributory to the establishment of a final chronology. Yet in so far as it represents the architectural evidence at present available it is definitive, for that evidence is open to no other interpretation. It is possible that the study of important unpublished churches such as Hosios Meletios may elucidate the origin and development of the building processes

here discussed and allow the chronology of the period to be traced with greater precision than has been attempted. At the same time it is hoped that the present article, by collating the various pertinent data, has provided a true index of the present state of knowledge, which will facilitate the further study of the Greek churches. H. MEGAW.

CHRONOLOGICAL TABLE AND INDEX.

XIth century.

1st quarter:

KATHOLIKON, HOSIOS LOUKAS **93**, 100, 101, 104, 110, **115**, 116, 117, 120, **124**, 127.
H. APOSTOLOI, ATHENS 102, 103, **104**, **105**, 110, 111, **115**, 116, 120.

2nd quarter:

THEOTOKOS, HOSIOS LOUKAS . . . **93**, 102, 103, **104**, 105, **106**, 110, **115**, 116, 120.
PANAGIA LYKODEMOU, ATHENS **95**, 102-106, **104**, **115**, 116, 118, 120, 122, 124, 126
H. Aikaterine, Athens 107, 122, **124**, 126.

3rd quarter:

KAPNIKAREA, ATHENS 102, **107**, 116, 118, 120, 122, 124, **126**.
KAPNIKAREA EXO-NARTHEX **107**, 112, **118**, 121, 125, **127**.
H. THEODOROI, ATHENS . . . **96**, 102, 106, 110, 116, 120, 122, 125, 126, 127.

4th quarter:

DAPHNI, ATTICA **93**, 102, 103, **107**, **112**, 116, 117, 120, 122, **125**.
Kaisariane, Attica 94, 101, **112**, 116, 121, 123, 125.
Ligourio, Argolis **108**, 111, **112**, **117**, 118, 121, **123**.

XIIth century.

1st quarter:

CHONIKA, ARGOLIS **102**, 108, 111, **112**, **117**, 118, 123, 125.
AMPHISSA, PHOCIS 102, **109**, 111, **112**, **123**, 126, **127**.
Plataniti, Argolis 108, **117**, 118, 123.

2nd quarter:

Ioannes Kynegos, Attica 94, 97-99, 101, 116, 123, **125**, 126.
H. NIKOLAOS STA KAMPIA, BOEOTIA 100, 112, 116, **123**, 125, **126**, **127**.
HAGIA MONE, ARGOLIS . . . **94**, **97**, 102, 108, 112, 117, 118, 123, 125, 127.

3rd quarter:

SAGMATA, BOEOTIA 95, **102**, **114**, 116, 123.
Omorphe Ekklesia, Attica 101, 113, **114**, 123, 125.
GASTOUNE, ELIS 109, 111, 113, 116, 117, **118**, 124, 125, **127**.

4th quarter:

MERBAKA, ARGOLIS 95, 101, 108, 111, **114**, 117, **118**, **119**, **123**, 126, 127.
VLACHERNAI, ELIS 113, **114**, 116, 117, **119**, 124.

INDEX OF OTHER CHURCHES.

Alai Bey (Skala), Laconia	102.	Kalyvia Kouvara, Attica	113.
Athens, Ioannes Theologos	113.	Kastoria	110.
Megale Panagia	119, 123.	Loukisia, Boeotia	127, 128.
Panagia Gorgoepekoös	100, 112.	Mezappo, Mani	101.
Aulis, Boeotia	118, 125, 127.	Skripou, Boeotia	116, 120.
Corinth	101.	Sykaminon, Attica	115, 120, 123.
Demitsane, Arcadia	99.	Varnakova, Doris	92.
Hosios Meletios, Attica	91, 113, 120, 121.	Vatheia, Euboea	101.

INDEX TO ILLUSTRATIONS.

ARGOLIS:

Chonika: fig. 5, c, pl. 30, 42-45.
 Hagia Mone: fig. 5, d, pl. 28, 3-4.

Ligourio: fig. 3, fig. 5, b.
 Merbaka: fig. 4, 4-6, fig. 5, e-f.

ATHENS

H. Aikaterine: pl. 27, 1.
 H. Apostoloi: pl. 30, 1-37.
 Kapnikarea: fig. 2, A-B, fig. 5, A, pl. 27,
 2.
 Kapnikarea Exo-narthex: fig. 2, c-e,
 pl. 31, 1-2.

H. Ioannes Theologos: fig. 4, 3.
 Panagia Lykodemou: fig. 1, pl. 30, 38-
 41, pl. 31, 4.
 H. Theodoroi: pl. 31, 3.

ATTICA:

Ioannes Kynegos: pl. 28, 2.
 Omorphe Ekklesia: fig. 4, 1.

Sykaminon: fig. 4, 2, pl. 29, 4.

BOEOTIA:

Loukisia: pl. 27, 3.

Sagmata: fig. 4, 7, pl. 29, 1.

ELIS:

Gastoune: pl. 29, 2-3.

Vlachernai: fig. 4, 8-10, fig. 5, g-h.

PHOCIS:

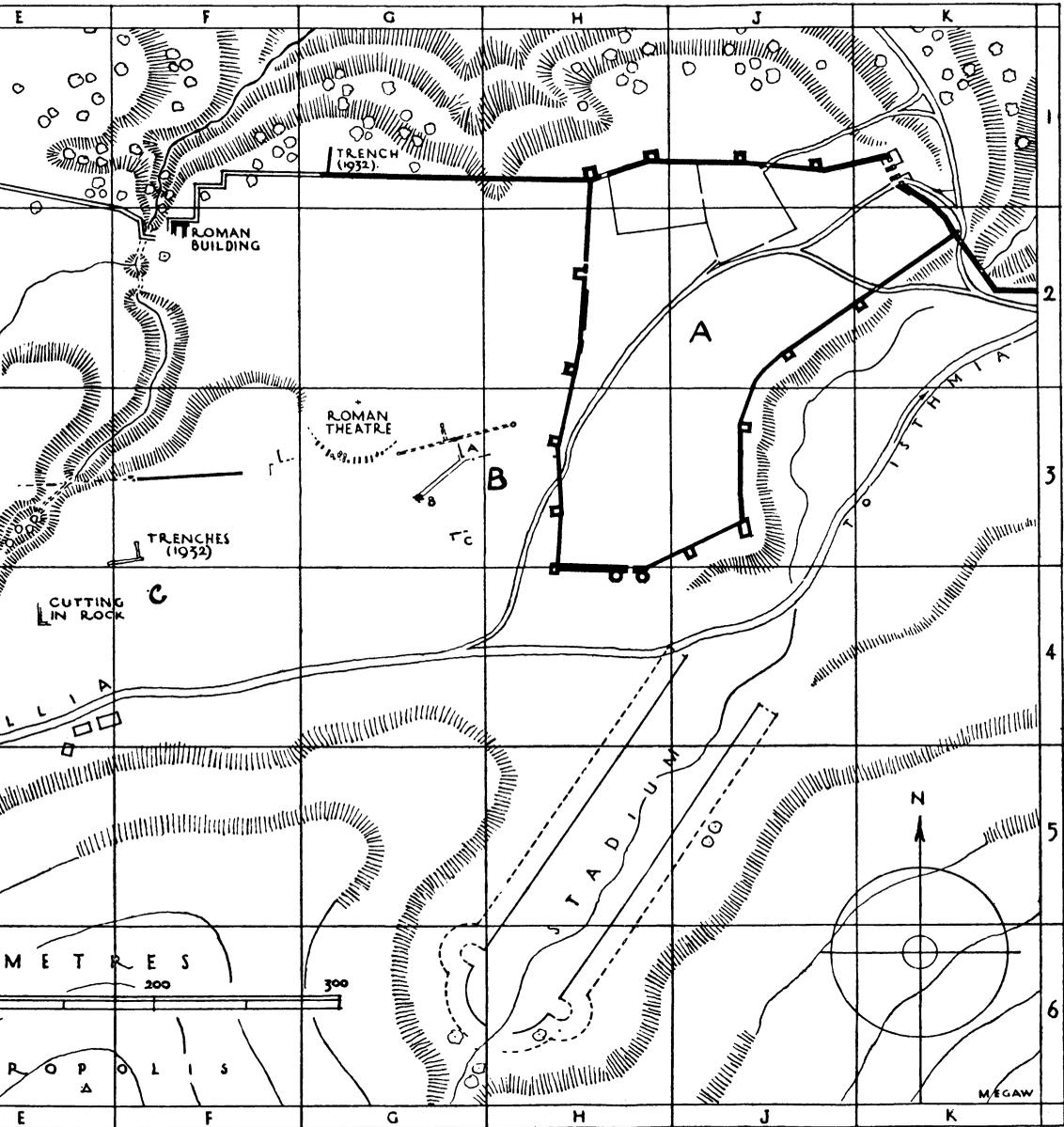
Amphissa: pl. 27, 4, pl. 28, 1, pl. 30,
 55-58.

Hosios Loukas: pl. 30, 46-54.

ADDENDA.

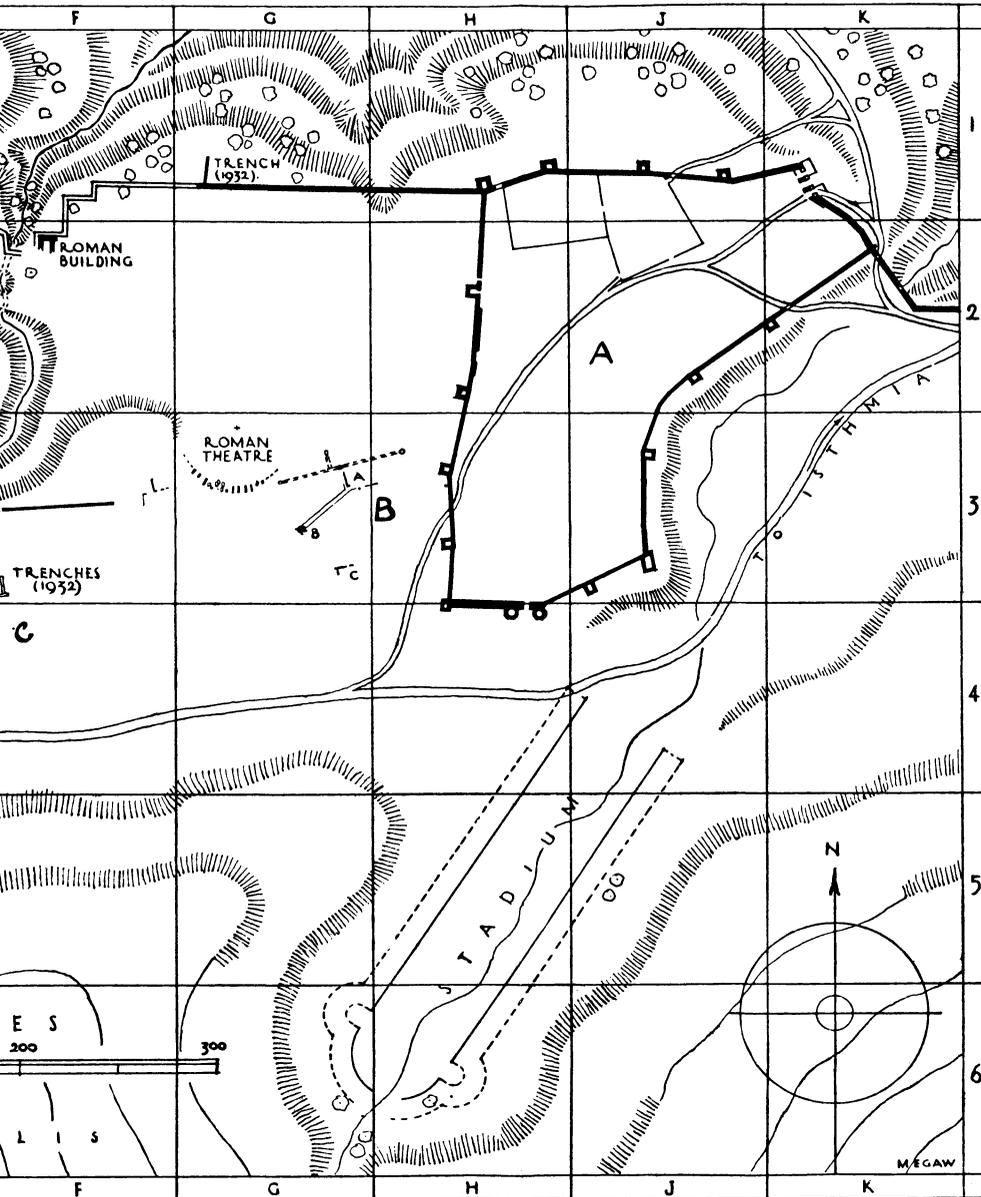
P. 97, note 3. ATHENS, H. THEODOROI. Since the above article went to press Xyngopoulos has repeated his contentions that the church is a twelfth-century building and that the dated inscription may not be referred to its erection (*Επετηρίς Έτ. Βυζ. Σπουδών, 10 (1933), 450-453). The new arguments he introduces demand a re-examination of the evidence which space does not permit here. But I cannot omit to observe that, setting the inscriptions aside, the church on stylistic grounds falls between the Kapnikarea and Daphni, that is to say in the third quarter of the eleventh century.

P. 98, note 6. ATTICA, IOANNES KYNEGOS. I followed Soteriou (*Guide du Mus. Byz.* 50) in calling Byz. Mus. 204 part of a templon epistyle. Re-examining the piece I see that it is more probably the cornice member of a door-surround. Lambros (Μιχ. Ἀκοιμιάτου, II, 629-630) sought to identify this fragment as part of a fourth inscription seen by Pittakis on the Acropolis in 1842 (Έφημ., 512, no. 835) but since lost. Hence originated Neroutsos' daring distortion of the published copy (Δελτ. Ἰστ. Έθν. Έτ., III, 1889, 106). But Lambros' identification cannot possibly stand, for the lost inscription was on a narrow stele. It does certainly mention the monastery (τῆ μονῆ τοῦ Προδρόμου τῆ τοῦ (Κ)υνηγοῦ) but being undated does not help to fix the year of its foundation nor the age of the present church.



THE AREA INVESTIGATED. (Scale 1 : 4000.)

PLATE 26.



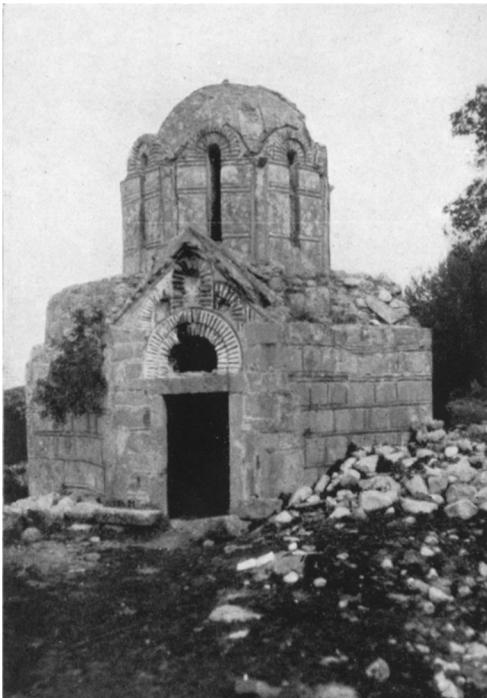
ESTIGATED. (Scale 1 : 4000.)



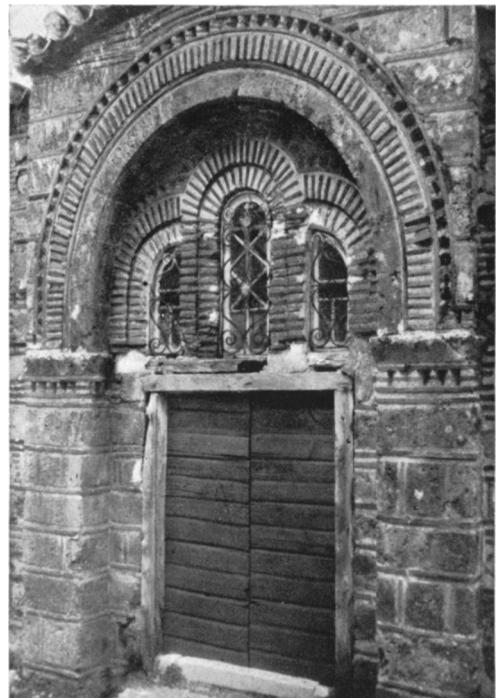
1. ATHENS, H. AIKATERINE: FROM SOUTH.



2. ATHENS, KAPNIKAREA: FROM SOUTH-EAST.

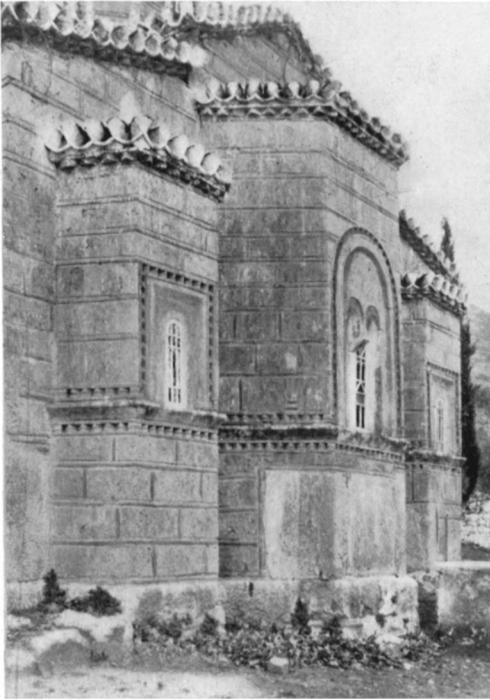


3. BOEOTIA, LOUKISIA: FROM WEST.



4. AMPHISSA, H. SOTER: WEST END.

MIDDLE-BYZANTINE CHURCHES.



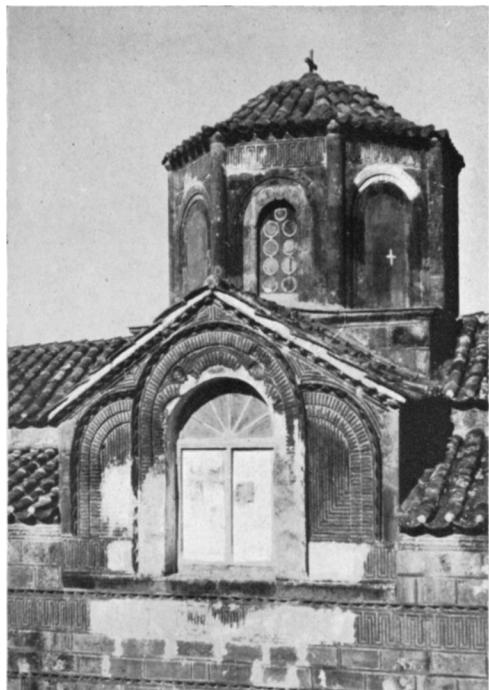
1. AMPHISSA, H. SOTER: EAST END.



2. ATTICA, IOANNES KYNEGOS: FROM NORTH.



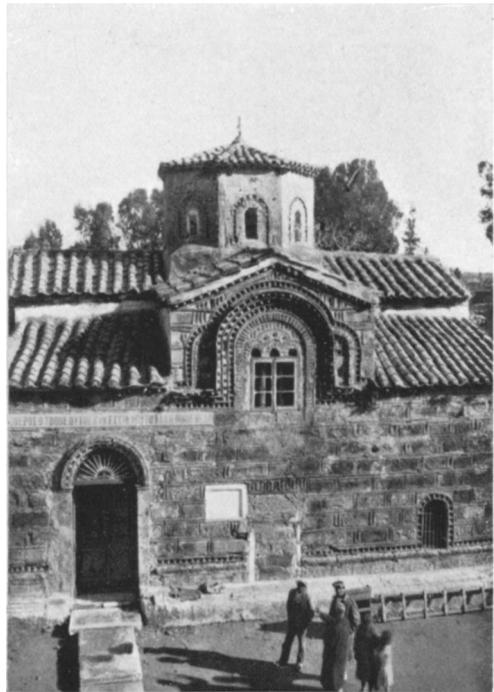
3. ARGOLIS, HAGIA MONE: CENTRE APSE.



4. ARGOLIS, HAGIA MONE: SOUTH GABLE.



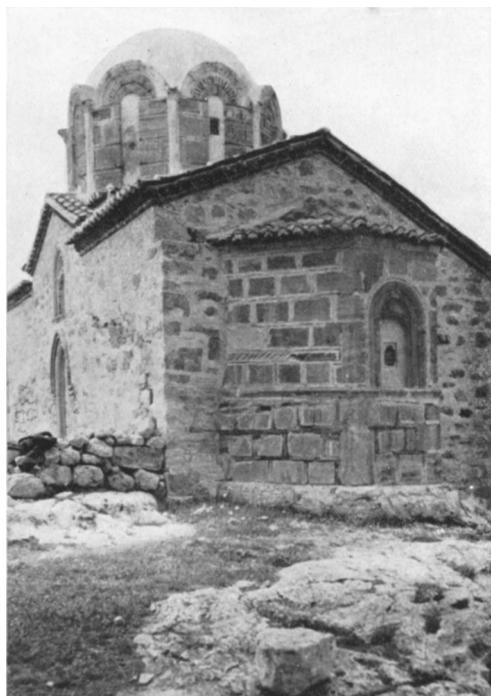
1. BOEOTIA, SAGMATA: EAST END.



2. ELIS, GASTOUNE: FROM SOUTH.

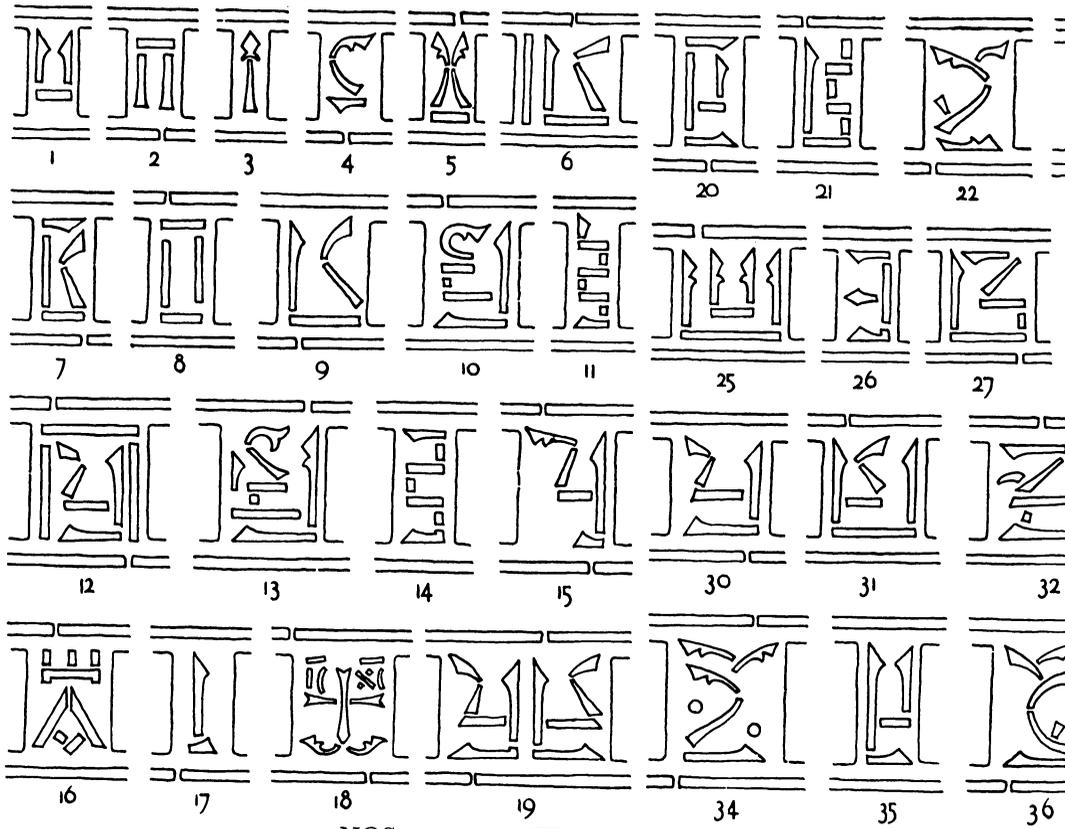


3. ELIS, GASTOUNE: THE APSE.

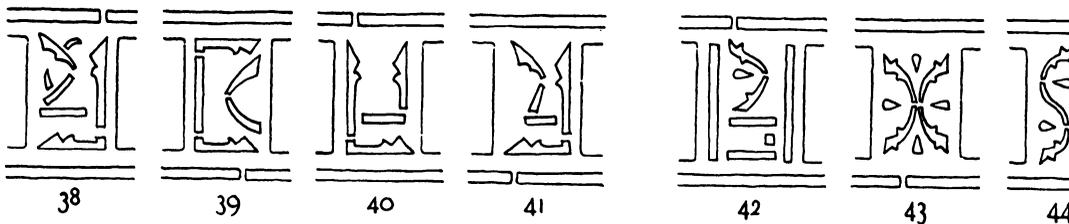


4. ATTICA, SYKAMINON: H. ELEOUSA.

MIDDLE-BYZANTINE CHURCHES.

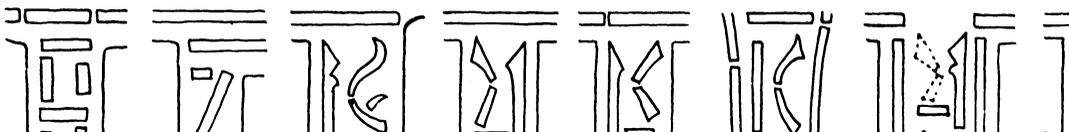


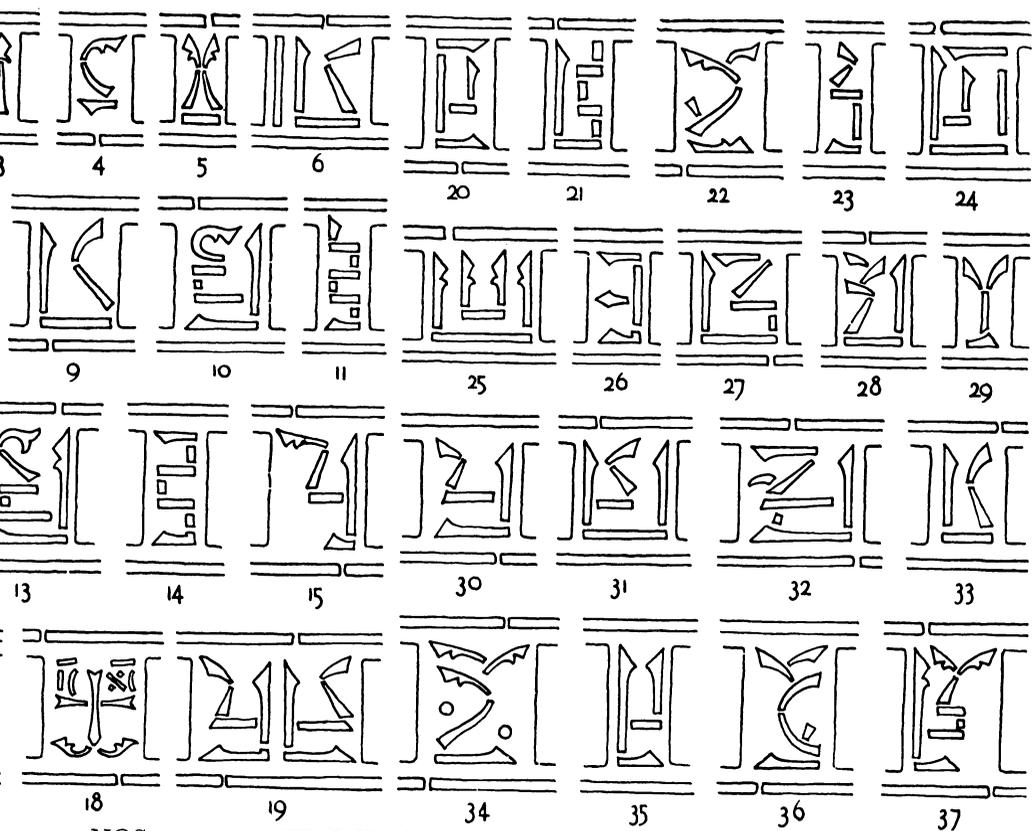
NOS. 1-37: ATHENS, H. APOSTOLOI.



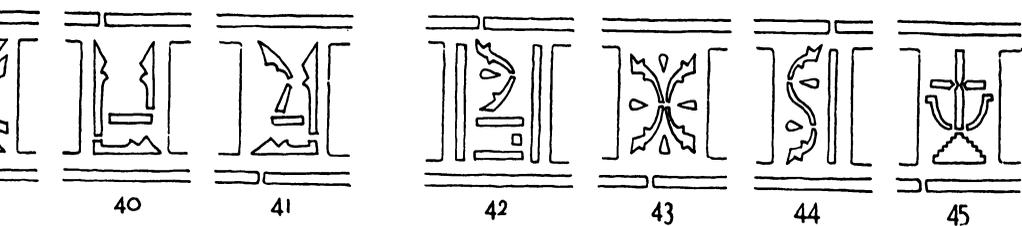
NOS. 38-41: ATHENS, PANAGIA LYKODEMOU.

NOS. 42-45: CHC





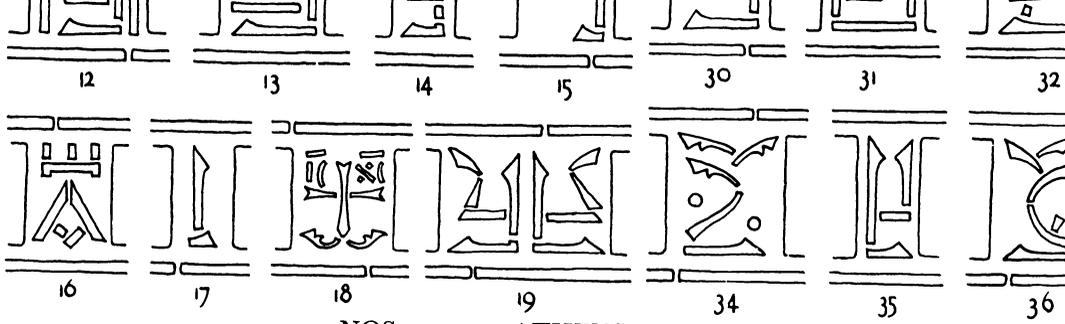
NOS. 1-37: ATHENS, H. APOSTOLOI.



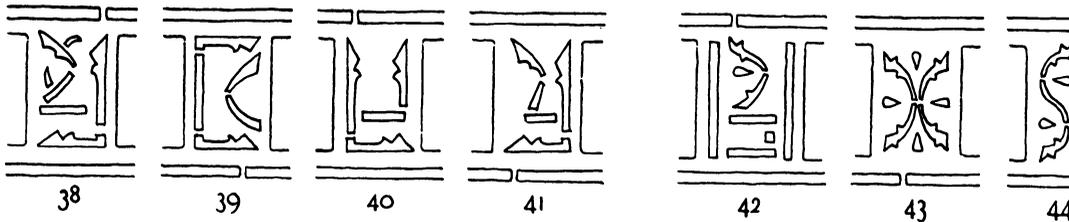
NOS. 40-41: PANAGIA LYKODEMOU.

NOS. 42-45: CHONIKA.



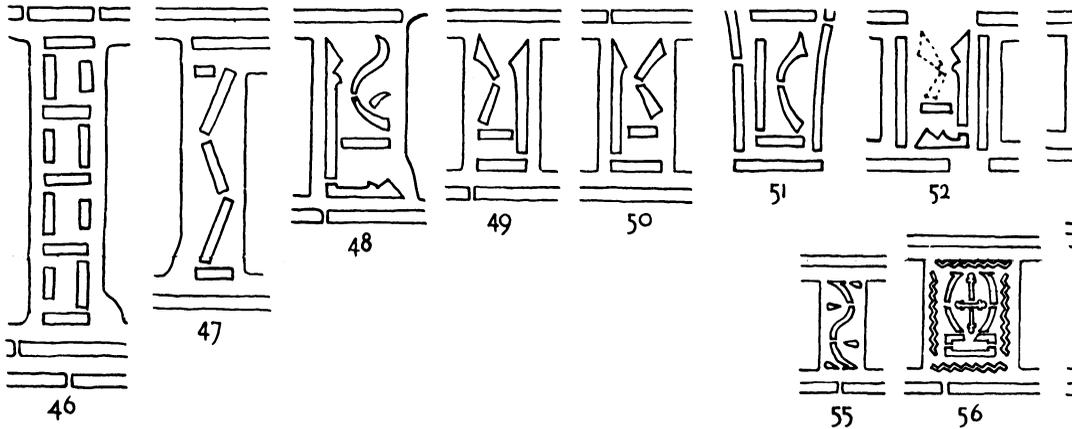


NOS. 1-37: ATHENS, H. APOSTOLOI.



NOS. 38-41: ATHENS, PANAGIA LYKODEMOU.

NOS. 42-45: CHC



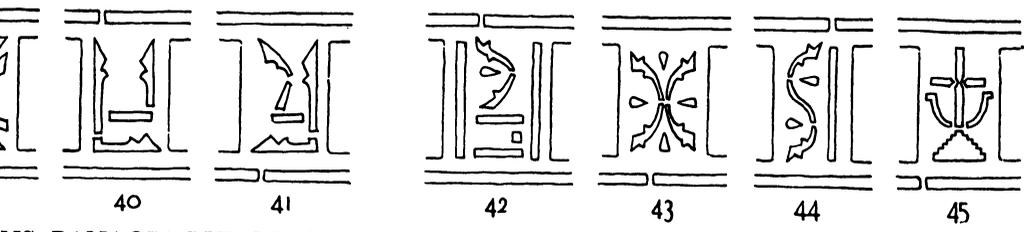
NOS. 46-54: HOSIOS LOUKAS, KATHOLIKON.

NOS. 55-58: A

MIDDLE-BYZANTINE CHURCHES: CUT BRICK PATTERNS. (Scale 1 :)

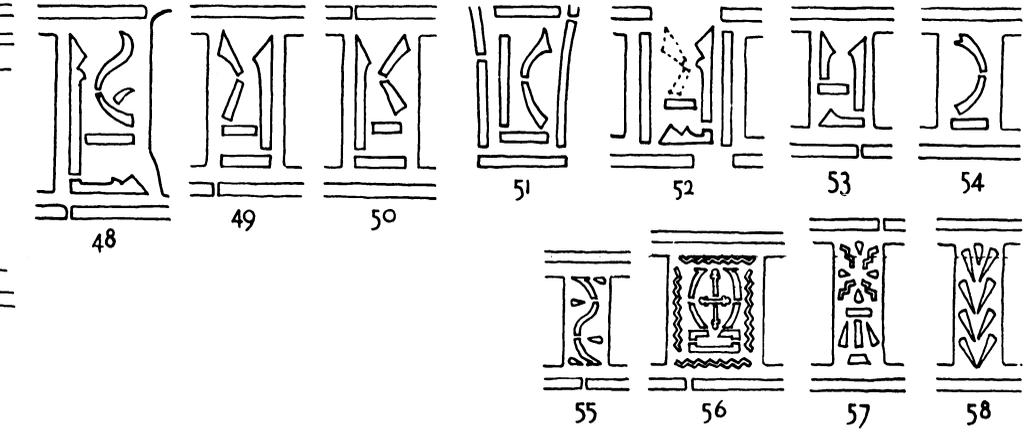


NOS. 1-37: ATHENS, H. APOSTOLOI.



NS, PANAGIA LYKODEMOU.

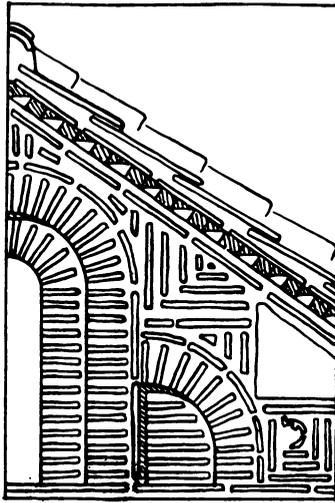
NOS. 42-45: CHONIKA.



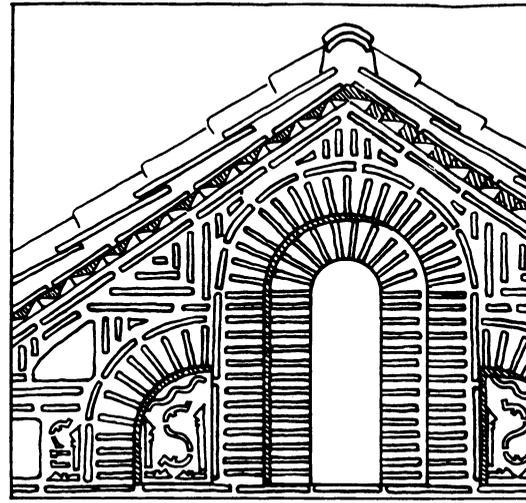
OS LOUKAS, KATHOLIKON.

NOS. 55-58: AMPHISSA.

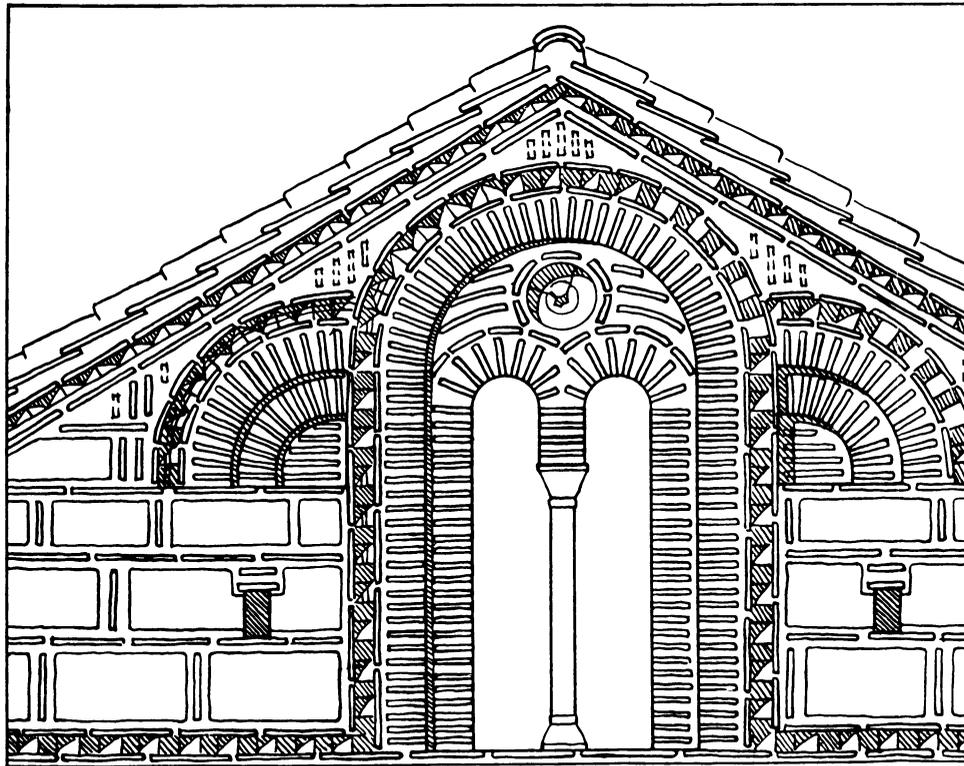
PLATE 30.



1. ATHENS, KAPNIKAREA: EXO-NARTHEX, GABLE 3.



2. ATHENS, KAPNIKAREA: EXO-NARTHEX



3. ATHENS, H. THEODOROI: WEST GABLE WINDOW.

MIDDLE-BYZANTINE CHURCH