The evolution from Early Christian to Middle Byzantine church architecture on the island of Naxos

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Abstract

Εξήντα πέντε ναοί χρονολογούμενοι από τον 5ο ως και τον 12ο αιώνα έχουν, πλήρως ή μερικώς, διατηρηθεί στη Νάξο. Οι εκκλησίες αυτές επανεξετάσθηκαν στο πλαίσιο μιας διδακτορικής διατριβής, με ιδιαίτερη έμφαση σε τριάντα τέσσερις, οι οποίες χρονολογούνται από το τέλος της παλαιοχριστιανικής περιόδου (μέσα 7ου αιώνος) ως την εποχή κατά την οποία η μεσοβυζαντινή αρχιτεκτονική απέκτησε τα κύρια χαρακτηριστικά της (μέσα 11ου αιώνος). Η ανάλυσή τους επέτρεψε την καλύτερη κατανόηση της οικοδομικής τους ιστορίας και μία ακριβέστερη προσέγγιση της χρονολόγησής τους. Η παρούσα εργασία εκθέτει τα βασικά συμπεράσματα για την εξέλιξη της εκκλησιαστικής αρχιτεκτονικής στη Νάξο στη διάρκεια των αιώνων, ως προς την τυπολογία, την κατασκευή και τις μορφές των ναών, καθώς και μία ιστορική ερμηνεία της εξελικτικής διαδικασίας. Αποβλέπει ιδιαίτερως στο να συμβάλει στην καλύτερη κατανόηση της μετεξέλιξης της αρχιτεκτονικής στους λεγόμενους ‘σκοτεινούς αιώνες’, καθώς και του χαρακτήρα της βυζαντινής αρχιτεκτονικής στα νησιά των Κυκλάδων.

Introduction

This paper examines the evolution of church architecture on the island of Naxos from the 5th to 12th centuries AD in terms of typology, construction and form. It analyses the main steps of development, from the Early Christian through Middle Byzantine periods, while also attempting to interpret these changes, particularly on the basis of Aegean medieval history. The great number of Byzantine churches preserved on Naxos, many of which date before AD 1000, offers a unique opportunity for the study of this developmental process.

The churches of Naxos first attracted the interest of scholars in the 1960s. Since then, numerous studies have been published, not all of them focused on architecture nor devoid of misconceptions. Most noteworthy among publications on Byzantine architecture in Naxos are the works of the late George Dimitrokallis and of George Mastoropoulos, whose studies have contributed to a significant

1. The paper includes some of the conclusions of a doctoral thesis at the Department of Architecture of the University of Patras; Aslanidis (2014). I would like to express my gratitude to professor S. Mamaloukos, who supervised this thesis, but also to the members of the advisory panel, professors S. Kalopissi and P. Koufopoulos. I am also deeply grateful for the help of the 2nd Ephorate of Byzantine Antiquities of the Greek Ministry of Culture, which has been of immense importance to this work. I am particularly indebted to the former Director, Dr Charalambos Pennas, who was in charge of the Ephorate when most of this research was conducted.


advance in the relevant knowledge. Nevertheless, researchers have continued to face certain obstacles, mainly due to the lack of a comprehensive study of church architecture on the island.

The churches

Sixty-five churches are considered in the present study, with particular emphasis on thirty-four examples that date from the mid-7th to the mid-11th centuries: from the end of the Early Christian period to the era in which Middle Byzantine architecture fully achieved its principal characteristics. This re-examination aims to provide a better understanding of the constructional history of these churches and a more precise approach to their chronology.

The 5th to mid-7th centuries

Twelve churches date from the 5th to the mid-7th centuries, all but one of which are basilicas. Several resulted from the transformation of ancient temples: the temple of Dionysos at Yria, the temple of Apollo on the islet of Palatia in Chora and the temple of Demeter at Gyroulas. In the mid-6th century AD, the latter was demolished and replaced by a three-aisled, timber-roofed basilica, constructed from the material of the ancient temple. Two other basilicas of the three-aisled, timber-roofed type, Agios Matthaios at Plaka and Agios Stephanos near Aggidia, are preserved in ruins. The aisles of these basilicas were separated by colonnaded arcades. In contrast, in the basilica next to the ancient tower at Cheimarros and the Protothronos in Chalki (Fig. 32), the nave is separated from the aisles by means of piers. The Cheimarros basilica is believed to have been vaulted, whereas the Protothronos must have been timber-roofed. All that remains of the basilica of Agios Ioannis at Kaminos (Fig. 39) are the apse’s foundations and two piers, incorporated into a Middle Byzantine church. A time-worn wall still standing next to the small chapel of Agios Phokas near Apollon may also belong to an Early Christian church.

Three churches preserved in relatively better condition that belong to the end of this period (late 6th or first half of the 7th century) hold great importance for the evolution of Byzantine architecture, since several of their features also appear in the following period. Consequently, these key monuments, Agios Isidoros at Rachi, Agios Akepsimas near Tripodes and Panagia Drosiani near Moni, deserve to be examined in greater detail. Agios Isidoros at Rachi (Fig. 2) was built as a three-aisled basilica with a single apse. It may have been timber-roofed, although its dimensions are similar to those of the nearby vaulted basilica of Taxiarchis. The aisles were separated by arcades resting on two piers. During the Latin occupation, the building

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8. Gruben (1999), pp. 296-99; Ohnesorg (2012), pp. 107-109, fig. 4e, 9, 10. Also see contribution by T. Bilis, M. Magnisali in the present volume.
was roofed with pointed vaults. The hypothesis that an intermediate construction phase existed, proposed by Dimitrokallis, cannot be sustained. A narthex was added to the church possibly before the 11th century, but its flat roof belongs to a later, post-Byzantine modification.

Agios Akepsimas near Tripodes (Fig. 3) was a three-aisled vaulted basilica with piers, which has only partially survived. The vault of the nave, as well as the semi-dome over the apse, are made entirely of carved, porous, volcanic stone.

Panagia Drosiani near Moni belongs to the triconch type and represents the only Early Christian church on Naxos that has survived intact. Drandakis dated the construction of the church to the 6th century and the first layer of its wall paintings to the first half of the 7th century. Gioles later concluded that the frescoes date to the second half of the 7th century. The building's architectural features reveal similarities with churches of the following period and thus indeed point to a relatively late date for its construction. The auxiliary chapels, which clearly imitate the main church, may have had a much later chronology.

The mid-7th to mid-11th centuries:

Basilicas

Agios Ioannis at Afiklis (Fig. 4, 5) is a three-aisled, vaulted basilica with piers and three apses in the sanctuary. The first layer of wall paintings possibly dates to the early 8th century. The church's architectural features also point to this date. Taxiarchis near Monoitsia (Fig. 6) and Panagia Agias (Fig. 7) have similar building plans and frescoes that have also been dated before the start of Iconoclasm, in the early 8th century.

Agios Georgios in the castle of Apalirou (Fig. 8) is preserved only in ruins and cannot be thoroughly studied without archaeological excavation. It comprises a complex of structures that includes a large two-aisled basilica with a narthex; a domed, single-nave church; and two single-nave chapels. The basilica must have been timber-roofed. The aisles were separated by walls, pierced with arched openings. Transverse arches were added to the southern aisle during a second construction phase. Later, the church acquired a vaulted roof, possibly with a dome. The initial construction of this complex probably dates to the second half of the 7th century.

Christ Fotodotis near Danakos (Fig. 9, 10) was built as a three-aisled, vaulted basilica with piers. The first layer of wall paintings, which consist of aniconic motifs, points to a date during the period of Iconoclasm in the 8th and 9th centuries. In the 12th century, the church was modified, after its floor level was lowered significantly, in order to follow the simple four-column variation of the cross-in-square type. To this construction phase belong a marble floor and numerous sculptures, which allow the reconstruction of the marble templon. Vague reports from the seventeenth century link the church

with the Comnenoi. The church acquired its final form perhaps in the 18th century, when its western columns were shifted to the west and a flat roof was constructed over its vaults.

Agios Stephanos at Kato Marathos was initially a two- or three-aisled basilica, which was later reduced in size to an area covering only its north aisle.

**Domed basilicas**

Theotokos at Demos (Fig. 11) is a ruined church originally built as a domed basilica whose aisles were separated by walls. Its similarities to churches of the 8th or 9th century point to a comparable chronology. In the 13th century (before 1281), it was converted into a single-nave church with a chapel to the south.

Agios Ioannis at Grammata (Fig. 12, 13) has an unusual plan that did not result from the transformation of a three-aisled basilica, as supposed by Dimitrokallis. Its architectural features and typological peculiarities suggest a date of construction during the transitional 8th or 9th century.

**Churches of the free-cross type**

In Agia Kyriaki at Stavropigi near Tripodes, in which aniconic wall paintings are preserved, small apses appear in the eastern walls of the lateral cross arm. The same feature appears in Stavros at Kakavas near Apeiranthos (Fig. 14)—also a church with aniconic paintings. Here, additional small apses were formed in the side walls of the sanctuary and in the apse. The small domed chapel south of the main church belongs to the building’s initial construction.

Panagia Damniotissa near Chalki has a similar plan, with apses in the lateral cross arm. Several marble sculptures allow the hypothetical reconstruction of the original templon, which may be dated to the late 10th or early 11th century. This date is also possible for the erection of the building, based on its architectural features. Agios Ioannis at Avlonitsa (Fig. 15, 16) is similar in plan, although the apses of its lateral cross arm protrude. A date similar to that of Damniotissa is possible. The chapel on the northwest represents a later addition.

**Churches of the triconch type**

Agios Ioannis near Kaloxyllos (Fig. 17) was originally constructed as a triconch church, with a narthex and two chapels forming a U-shape on its western side. The building was significantly altered during later construction phases. The aniconic decoration of the chapel indicates a possible date within the era of Iconoclasm.

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Single-nave, vaulted churches

Monastiriotissa near Engares\(^\text{40}\) (Fig. 18) is a single-nave church with two transverse arches. Although the side chapels clearly belong to a later construction phase, they were already part of the original design, as revealed by certain construction details. The church’s aniconic wall paintings indicate a date in the 8th century.\(^\text{41}\)

Agios Ioannis in Danakos\(^\text{42}\) belongs to the same architectural type as the previous example. A barrel-vaulted chapel was added in the south. Aniconic decoration in the apse of the initial church indicates a date during Iconoclasm.

Agios Mamas at Dritis\(^\text{43}\) (Fig. 19, 20) is also a single-nave church with a somewhat later addition in the south. Although wall paintings have not been preserved, its architectural features indicate a similar date.

Agios Georgios at Ropiki\(^\text{44}\) (Fig. 21) likewise represents a single-nave church with an added chapel. A considerable portion of both churches has collapsed, but the north church was reconstructed in relatively recent years. Traces of some wall paintings in the church are considered to be aniconic. Based on architectural features, a chronology during Iconoclasm seems possible.\(^\text{45}\)

Agios Panteleimon at Lakkomiersina\(^\text{46}\) has an intricate constructional history that remains to be fully understood. Very likely, the church was built as a single-nave structure with a chapel, dating to this period. A fresco layer in the apse is considered aniconic.\(^\text{47}\)

The constructional history of Profitis Ilias in Potamia\(^\text{48}\) is also complex. It may have been constructed as a single-nave, barrel-vaulted church. A layer of aniconic paintings reputedly exists in the apse.\(^\text{49}\)

Agios Demetrios at Chalandra\(^\text{50}\) (Fig. 22), which is now a single-nave, domed church, was likely built originally as a single-nave, barrel-vaulted church with blind arcades at the sides and a transverse arch.\(^\text{51}\) The narthex and the side chapel are much later additions. Traces of aniconic wall paintings are also noted for this church.\(^\text{52}\)

Single-nave, domed churches

Agia Kyriaki near Apeiranthos\(^\text{53}\) (Fig. 23) is a single-nave, domed church. Its narthex and chapel to the south were added in a second construction phase, although they were elements of the original plan. Agios Artemios near Sangri\(^\text{54}\) (Fig. 24) is similar, also with a chapel added to the south which had been planned from the start. These two churches, along with Agios Ioannis at Adissarou\(^\text{55}\) (Fig. 25), which belongs to the same type, contain the most extensively preserved layers of aniconic wall paintings to be found on Naxos.

\(^{40}\) Ohnesorg (2012), pp. 121-22, fig. 26; Aslanidis (2014), pp. 123-26, pl. 44-45.
\(^{41}\) Acheimastou-Potamianou (1979), p. 374.
\(^{42}\) Mastoropoulos (1984); Aslanidis (2014), pp. 127-29, pl. 46-47.
\(^{46}\) Drandakis (1985-90), pp. 32-37; Aslanidis (2014), pp. 139-42, pl. 52-53.
\(^{50}\) Kostakopoulou, Ruetten and Issa (2009); Aslanidis (2014), pp. 146-48, pl. 56-57.
\(^{51}\) Kostakopoulou, Ruetten and Issa (2009) have expressed a different view.
\(^{53}\) Vasilaki (1962-3); Aslanidis (2009); Aslanidis (2014), pp. 153-58, pl. 58-60.
\(^{54}\) Vasilaki (1962-3); Aslanidis (2014), pp. 159-62, pl. 61-62.
\(^{55}\) Acheimastou-Potamianou (1984); Aslanidis (2014), pp. 163-66, pl. 63-64.
Panagia at Athalassou⁵⁶ (Fig. 26) closely resembles the churches just mentioned, although some constructional details indicate a later date—possibly at the end of the 10th or beginning of the 11th century.

Agios Ioannis at Sifones⁵⁷ (Fig. 27) bears a great likeness to Agia Kyriaki near Apeiranthos. The chapel to the south of the church replaced a similar one which, as in Agia Kyriaki, was part of the original design, although added later. Agios Ioannis at Baouzi⁵⁸ belongs to the same type, but is comparable to churches of the single-nave, cross-in-square type. It may have been built in the late 10th or 11th century. This date is likewise indicated by the architectural features of Agios Nikolaos near Sangri,⁵⁹ where the first layer of wall paintings has also been attributed to this period.⁶⁰

**Churches of cross-in-square type**

Agios Georgios in Apeiranthos⁶¹ (Fig. 28, 29) presently appears as a large domed church with a barrel-vaulted chapel on its north side. The church may originally have belonged to the cross-in-square type of the so-called ‘transitional’ variation, with walls between the nave and the corner bays. Traces of aniconic decoration in the north apse⁶² may make the building one of the oldest surviving examples of its type. On the north-western side of the church is attached Agios Pachomios, possibly built in the 12th century.⁶³

Panagia Kera at Ammomaxi⁶⁴ (Fig. 30) is a small church of the transitional cross-in-square type, which probably dates to the period in question.

Concerning the chronology of the cross-in-square church of Agios Mamas⁶⁵ (Fig. 31), several proposals have been published, which range from the 9th to the mid-11th century.⁶⁶ The identification of a sculpted architectural member as the epistyle of the templon in the Diakonikon of the church,⁶⁷ later reused as a door lintel in a nearby chapel, points to a date in the late 10th or more likely the first half of the 11th century. Its similarity to the marble screen of the Protothronos favours the assumption that the “Bishop Leo” mentioned in the founding inscriptions of both churches⁶⁸ could be the same person.⁶⁹

The Protothronos in Chalki⁷⁰ (Fig. 32) was initially erected as a pier basilica,⁷¹ probably in the late 6th or 7th century, then was later transformed into a church of the cross-in-square type. This change is occasionally attributed to the restoration works mentioned in the inscription on the marble screen, both of which date to 1052.⁷² A second inscription, however, clearly states that the renovation of the

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⁶³. Agios Pachomios is indeed later than Agios Georgios as initially proposed by Dimitrokallis (1976, p. 106) and not the opposite as supposed later (Dimitrokallis 2000, p. 46).
⁶⁹. Also see: Kappas (2009), v.2, p. 205.
⁷¹. See note 10.
church included certain ecclesiae, as well as the propylon and the diastyla.73 These additional details clarify that the renovation was limited to the narthex (with its two lateral chapels) and to the marble screen. Since the length of the templon’s epistyle fits the width of the church’s eastern cross arm,74 it is apparent that the church already belonged to the cross-in-square type in 1052. The transformation, therefore, may date from the second half of the 10th century, a date also attributed to the first layer of wall painting in the dome.75

Churches of possible date between the mid-7th and mid-11th centuries

The developmental phases of Agios Eustathios at Mikraria76 remain unclear. However, it is certain that the unusual dome does not belong to the original construction. Agios Georgios at Lathrinos77 also has a complicated history. It consists of two single-nave churches. The first construction phase of the southern church may be dated to the late 10th or no later than the early 11th century, as indicated by the sculptures of its original marble templon. Panagia at Archatos78 appears to have been built as a single-nave, barrel-vaulted church, possibly in the period in question.

The mid-11th to 12th centuries:

Churches exhibiting the tetrastyle variation of the cross-in-square type

Agioi Apostoloi at Metochi79 (Fig. 33) stands out among the Byzantine churches of Naxos, thanks to its complex plan and articulated, decorated façades. It was built in the tetrastyle, cross-in-square type, with a narthex flanked by two chapels. The vaults of the church were reconfigured during a second construction phase. The new dome was built on four massive piers, while a two-storey exonarthex was added on the west side. Agios Stephanos at Aggidia,80 which belongs to the same type, was built on the site of an Early Christian basilica and is now preserved only in ruins. Agios Georgios Diasoritis81 at Chalki also belongs to the type here in question. It has a somewhat later narthex, in which an inscription mentioning the name of a Byzantine army official has been preserved.82 The wall paintings in the main church date from the second half of the 11th century. The corner bays are covered in an unusual manner that combines a groin vault with a domical vault. In the churches of Panagia Academiotissa83 and Agios Georgios at Yria,84 the corner bays are covered in a similar way and are likely of similar date.

74. Also see: Panayotidi (1969), pp. 179-80.
78. Dimitrokallis (1968), pp. 658-60, fig. 11, 12; Aslanidis (2014), pp. 223-26, pl. 94-96.
80. See note 8.
82. Dimitrokallis (1972), p. 52.
Single-nave, domed churches

Several churches that may date from this period represent variations of the single-nave, domed type. Panagia at Aria85 (Fig. 34) is noteworthy due to the fact that its eastern section follows the single-nave, cross-in-square type, whereas its western section follows the single-nave, domed type. Agios Georgios at Epano Marathos86 (Fig. 35) is similarly remarkable for its imitation ashlar masonry on the façade's applied outer render and for its ribbed dome. Also assignable to this architectural type are Agioi Anargyroi near Sangri,87 the largest and oldest structure in a complex of three churches; Agios Georgios at Aulia,88 a church with later alterations; Agios Georgios at Krini,89 whose date is uncertain; and Panagia Orfani at Sangri,90 a church with two apses in the sanctuary.

Churches representing the single-nave variation of the cross-in-square type

More than ten churches belong to this type. In the church of Panagia Arkoulou91 (Fig. 36) near Sangri, several sculptures that allow the hypothetical reconstruction of the marble templon92 can be dated to the 11th century—possibly within the second half. Other examples of the same type include Panagia Sotobriani93 near Apeiranthos; Agios Nikolaos at Paratrechos;94 Christos at Kathanychta95 (Fig. 37, 38); Agios Thomas at Lathrinos,96 now transformed into a barrel-vaulted hall; Agios Konstantinos at Stavropigi97 near Tripodes; Agios Ioannis at Kaminos98 (Fig. 39); Agia Marina at Chalki;99 Agios Ioannis at Kaknados100 near Sangri; and Agios Pachomios in Apeiranthos.101 The narthex of Protothronos in Chalki102 (Fig. 32), which dates after 1052, also follows this type.

Churches of the free-cross type

Two churches of the free-cross type can probably be dated to this period: Panagia Rachidiotissa near Monoitsia103 and Agios Stephanos in Tsikalario104 (Fig. 40).

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98. See note 13.
102. Mastoropoulos (1997); Aslanidis (2014), pp. 204, 206-10, pl. 83a, 85c.
Chronology

The general character of the Byzantine churches of Naxos is provincial and conservative, a fact which complicates their dating. The contribution made by the study of wall paintings, therefore, is invaluable. Particularly helpful are the aniconic wall paintings found in more than fifteen Naxian churches. Although the link between the aniconic wall paintings of Naxos and Iconoclasm has occasionally been questioned, the opposite, widely accepted view that they are a product of this period is well documented and beyond doubt. Two additional arguments further support this position. Past confusion regarding the date of aniconic paintings in the Aegean islands has to some extent been caused by the late Dimitrios Pallas, who based his theory on an erroneous reading of the inscription in the church of Agios Pavlos in Ikaria—which he dated to the early 12th century. As recent research has shown, however, this inscription can be firmly dated to the seventeenth century. Consequently, the Ikarian church cannot contribute to the dating of those on Naxos. Moreover, the architectural features of the Naxian churches that contain aniconic wall paintings result from the evolution of 7th-century features and could indeed be dated to the 8th or early 9th century. With the aid of wall-painting chronology and a comparison of common architectural characteristics, the Byzantine churches of Naxos can be grouped into five developmental periods:

a. 5th – mid-6th century
b. mid-6th – mid-7th century
c. mid-7th – mid-9th century
d. late 10th – mid-11th century
e. mid-11th century – 1207

No secure evidence exists for church-building activity in the second half of the 9th and first half of the 10th centuries. The above classification is based, specifically, on an analysis of: a. typology and b. construction and forms.

Typology (Fig. 43)

The basilical plan is predominant during the 7th century, continues into the 8th century and declines no later than the first half of the 9th century. Gradually, the size of basilicas diminishes; barrel vaults are used instead of timber roofs; and arches between nave and aisles are supported by masonry piers instead of marble columns. The appearance of vaulted basilicas can no longer be attributed to eastern influences. This is particularly evinced in Naxos, where 8th century vaulted basilicas clearly exhibit continuity from their 7th century predecessors on the island. The change from timbered to vaulted roofing systems could be attributed to a lack of constructional timber or to the decline of carpentry, as well as to the general economic decline caused by the Arab expansion in the Mediterranean. A different reason for the preference for vaults instead of timber roofs may have been the fear of destruction by fire. This has been proposed for the basilicas of Cyprus, Stewart (2010), p. 180.

106. Vasilaki (1962-3); Acheimastou-Potamianou (1984); Panayotidi (2013).
109. A different reason for the preference for vaults instead of timber roofs may have been the fear of destruction by fire.
reappear during the era of Latin occupation, when they become predominant—although with greatly reduced overall dimensions.

Domed churches appear as early as the 7th and 8th centuries and become predominant in the following period, after the end of the 10th century. The triconch type appears in the well-known Early Christian example of Drosiani, but also in Agios Ioannis at Kaloxyllos, which could be dated perhaps to the 8th or early 9th century. In Agios Ioannis, a narthex and two chapels originally formed a U-shaped plan in the western section of the church—a feature that appears already in Early Christian examples.

Two examples of domed basilicas also appear in the 8th century. In Theotokos in Demos, the nave was separated from the aisles by means of solid walls, a design thus reminiscent of a single-nave, domed church. In Agios Ioannis in Grammata, the western section of the church is shorter. The plan is comparable, therefore, to churches of the cross-in-square type. However, it is clear that the masons were unfamiliar with the type and that the difficulty of constructing a dome over a three-aisled building produced awkward results, indicative of the transitional period in which the church was built.

Another variation in church design that appears in the 8th to 9th century is the free-cross type. In the two examples of this type that date to the Iconoclastic era, the dome does not rest directly on the barrel vaults but on four arches, which recalls similar Early Christian constructions and examples of the same era. In these churches, but also those of the late 10th or early 11th century, there are small apses dedicated to different saints in the eastern walls of the lateral cross arm, as indicated by niches found in two examples that appear to have accommodated relics.

Another type of probable 8th-century date on Naxos is the single-aisle, domed church, often referred to as the domed-hall type. This variation is comparable to the single-nave, cross-in-square type, which appears much later on Naxos, during the 11th century. These two types, despite sharing similarities, should not be confused: the first includes churches with a longitudinal plan and a dome, whereas the second refers to buildings where the dome rests on barrel vaults that form a cross.

The cross-in-square type appears on Naxos in the 8th century, as exemplified by Agios Georgios in Apeiranthos. Until the mid-11th century, the dome is supported on walls, which, as the evidence of Agios Mamas attests, tend to become piers. After the mid-11th century, the dome is supported on piers or columns. All six examples of this type belong to the simple version of the four-column variation. Three churches seem to imitate the church of Agios Mamas (Agios Georgios Diasoritis, Panagia Academiotissa, Agios Georgios at Yria).

The single-nave variation of the cross-in-square type appeared in the second half of the 11th century and became the most common type during this period—for the reason that it facilitated the building of very small churches, with all the morphological advantages of the favoured Middle Byzantine type.

Another typological issue of interest concerns the addition of chapels and narthexes to single-nave churches. During the 8th and 9th centuries, their construction constituted part of the church’s original design, as is indicated by recesses in the church façade to accommodate their vaults. Chapels and

111. The composition appears in churches of the triconch, tetraconch and free-cross type, with examples dating from Early Christian (i.e. Agios Gabriel in Kos, Baldini and Mazzili (2011), pp. 152-59) to Late Byzantine times (i.e. Paleopanagia in Manolada, Athanasoulis (2006), pp. 333-40).
113. For this variation of the cross-in-square type see Kappas (2010), pp. 63-65.
114. The church has undergone a major repair, which has completely altered its original appearance. The representation in the form of a cross-in-square church is not without doubt. Aslanidis (2014), pp. 180-86, pl. 73-74.
115. For the single-nave cross-in-square churches of Naxos also see: Mastoropoulos (1997).
narthexes thus formed part of the buildings’ general architectural composition. In contrast, after the 11th century, they were added in a free, irregular way.\textsuperscript{117}

\textit{Construction and forms}

The walls of Byzantine churches on Naxos were constructed of rubble during all periods of development. Some of their observable differences may be considered characteristic, however, of certain periods. Until the mid-6th century, for example, there is frequent integration of \textit{spolia}, sometimes of considerable size. This practice ceases in the 7th century, when large, roughly cut stones are used only as quoins or window and door jambs. Much later, at the end of the 10th century, the use of recycled material again appears.

The façades of churches in the Early Christian period seem to have been left without render, since careful pointing has been traced in two of them (Drosiani, Agios Isidoros in Rachi). Later examples seem originally to have been rendered.

Arches and vaults, during all periods, were constructed of stone. The use of carved voussoirs was abandoned in the 8th century and re-appeared in the 10th. This temporary cessation was possibly related to the arrival of Arabs in the Aegean and the consequent disruption this unwelcome incursion caused for maritime commerce. In most cases, carved voussoirs in Naxos were made of volcanic stone, imported from Milos, Kimolos or Santorini, which was lighter and easier to carve than limestone. During the 8th century, details in the construction of vaults reveal an apparent shortage of timber used for centring.

Decorative sculpture in marble exhibits a dramatic decline between the 7th and 10th centuries. Around the end of the 10th century, it begins to regain popularity. The most important sculptural groups are those belonging to the templa of Damniotissa,\textsuperscript{118} Agios Georgios in Lathrinos,\textsuperscript{119} Agios Georgios Diasoritis,\textsuperscript{120} Panagia Arkoulou\textsuperscript{121} and Fotodotis in Danakos.\textsuperscript{122} In the latter example, architectural members of the 12th century have been incorporated into the eighteenth century templon, but have also been found dispersed during recent works in the church. The surviving architectural members allow the hypothetical reconstruction of the 12th-century templon, the characteristics of which reflect the known trends of Comnenian sculpture.

As with sculpture, the marble or mosaic floors of the Early Christian period give way after the 7th century to floors made of irregularly shaped stone slabs. Only two examples possess floors of higher quality: in Agios Mamas near Potamia, only a few slabs have been preserved, while in Fotodotis the entire marble floor of the church’s Comnenian phase has survived virtually intact.\textsuperscript{123}

Apses in all periods are semi-circular and occupy almost the entire width of the Bema. After the mid-11th century, they tend to become narrower and sometimes are flanked by side apses, even in single-aisle churches. A common feature characteristic of churches constructed before the beginning of the 11th century are protruding stones that link apses to each other or to the eastern wall of the church.\textsuperscript{124}

Domes are supported on drums that are always cylindrical. In the oldest examples, the drum on


\textsuperscript{118} Aslanidis (2014), pp. 110-11, 114, pl. 38\textepsilon.

\textsuperscript{119} Aslanidis (2014), p. 219, pl. 93.

\textsuperscript{120} Pennas (2000), pp. 25, 26, 29.

\textsuperscript{121} Aslanidis (2014), pp. 248, 253, pl. 113β, δ, ε, ζ, η.

\textsuperscript{122} Aslanidis (2014), pp. 63-72, 83-87, pl. 24-6.

\textsuperscript{123} Aslanidis (2014), p. 63, pl. 21-2.

the church’s interior may be omitted entirely125 or remain very low in height.126 Later, after the 10th century, the drums become higher and often slightly conical.127 Only in two examples are there features that suggest a Constantinopolitan influence (Damniotissa,128 Agios Georgios in Marathos129).

The roofs, during all periods examined, were most probably covered with tiles, whose form and arrangement attest to the survival of ancient techniques.130

The churches of the last period (after mid-11th century) possess only one entrance on the west. In contrast, there were often secondary doors during previous periods, either in the main façade or in the lateral ones. Among the four types of door openings that existed (fig. 41), two of them (2, 3) appear only within the first millennium. The heavy lintels of the early periods are later replaced by lighter ones, often surmounted by relieving arches. Windows, on the other hand, can be classified in three types: arched, rectangular and cruciform (fig. 42). The two first types appear in all periods, but their dimensions gradually diminish. Cruciform windows are not encountered after the early 11th century.

A very common feature among the Byzantine churches of Naxos is the synthronon, which was in widespread use after the 7th century, but rare after the mid-11th century.

The general character of churches on Naxos after the 7th century is defined by limited aspirations, improvisation, and absence of decoration on the façades, absence of luxurious materials on the interior and simple architectural forms. This trend of simplification is likely due to a general technological decline. Nevertheless, the overall style of Naxian churches preserves a monumental appearance for several centuries, which indicates the existence of architectural continuity from the era of late antiquity. At the same time, the churches’ style remains provincial, even after the reappearance of marble sculpture and a return to the use of carved stone or recycled marble in the late 10th century. The architectural simplification evident in some churches of this period intensifies after the mid-11th century.

The church of Agios Mamas near Potamia131 represents a completely different case. Its construction is characterised by special aspirations, which are also made apparent in the text of the inscription that addresses its construction. Agios Mamas appears to follow an Early Christian prototype, namely the Katapoliani in Paros,132 which, as described in the life of St Theoktiste of Lesvos, was very much admired in Middle Byzantine times.133 Similarities between the two churches are clear in the details of the façade and construction, but also with respect to the general concept of architectural space.

After the mid-11th century, the overall scale of churches, and of their details, become smaller. At the same time, all elements that once revealed a link to the architecture of the 6th century are abandoned and church design acquires a local character. Only in isolated cases are elements of Constantinopolitan provenance introduced, which are interpreted, however, by local masons. These include Agioi Apostoloi at Metochi134 with articulated façades and ceramic decoration; Agios Georgios in Epano Marathos135 with niches in the external façade of the drum beneath its dome and ashlar masonry imitated in its external render; and Fotodotis in Danakos136 with rich marble decoration.

127. For instance, in Agios Pachomios in Apeiranthos and Christos at Kathanychta; Aslanidis (2014), pp. 156–57, 162, 166. A row of blind arches occupies the space right above the windows; Aslanidis (2014), pl. 386, 39a.
128. The roof tiles follow the ‘Lakonian’ or ‘mixed’ (i.e. Corinthian pan tiles with Lakonian cover tiles) system. There are no tiles along the roof ridges.
**Historical interpretation**

The beginning of the Arab invasions in the Aegean in the mid-7th century, which marked the end of the Early Christian period, reputedly caused island populations to shift inland. Naxos is an island of considerable size, with high mountains on its eastern side and extensive plains to the west. A comparison of the locations of churches before and after the Arab invasions offers evidence that asserts this movement of the island’s population towards mountainous inland areas in the east, although the study of pottery finds points to a somewhat different conclusion.\(^{137}\) The foundation of the Apalirou castle, probably in the 7th century, not only created greater conditions of security, but also reveals the intention of the Byzantine empire to use Naxos as a militarily strategic point with which to limit the Arabs’ threat to the Aegean—at a time when they were repeatedly attempting to attack Constantinople.

In the second half of the 8th century, the Arab impact on the Aegean lessened, as the war and its military front shifted eastward.\(^{138}\) Consequently, in a period which largely coincides with Iconoclasm, the conditions of relative prosperity in Naxos were suitable for the construction of numerous small, humble churches far from the coasts, which can certainly be associated with the rural communities that had formed in the island’s mountainous areas.\(^{139}\)

The conquest of Crete by the Andalusian Arabs in the third decade of the 9th century marked the beginning of a troubled period for the Aegean region\(^{140}\) and may have led to the aforementioned absence of churches that can be securely dated to the second half of the 9th or the first half of the 10th century. It is well known that the Arabs of Crete held control of Naxos, since, according to Cameniates, the Naxians paid tribute to them in 905.\(^{141}\)

The Byzantine empire’s re-conquest of Crete in 961 brought a period of peace, followed by fresh developments in church building activity. Naxian church architecture, however, does not follow the evolution apparent in other parts of the empire at that time, instead retaining its idiosyncratic character. This indicates the isolation of the island and its limited importance as an administrative and military centre. The locations of churches built after 961 reveal a continuation of life in the same central regions of the island, but also a shift towards the western plains and a withdrawal from the mountainous eastern areas. The foundation of the Metropolis of Paronaxia in 1083 is indicative of a demographic development, but may also be linked to the policy set forth by Alexios I Comnenos for the Aegean islands.\(^{142}\) The particular churches that exemplify higher aspirations and the introduction of foreign elements may also be associated with this policy. Ultimately, the foundation of the Duchy of the Archipelago by Sanudo in 1207 signified the definitive abolition of Byzantine authority on the island and the start of a new era for church architecture, characterised by a distinctly different style.

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141. Ioannis Cameniatae, De excidio Thessalonicensi, CSHB 583.
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Figure 1. Map of Naxos with the locations of Byzantine churches (5th-12th centuries).

Figure 2. Agios Isidoros at Rachi. Plan (actual state and representation) and sections.

Figure 3. Agios Akepsimas. Plan and longitudinal section.
Figure 4. Agios Ioannis at Afiklis. Plan and sections.

Figure 5. Agios Ioannis at Afiklis. West view.

Figure 6. Taxiarchis near Monoitsia. Plan and longitudinal section (representation).

Figure 7. Panagia Agias. Plan and longitudinal section.
Figure 8. Agios Georgios in the Castle of Apalirou. Construction phases.

Figure 9. Fotodotis near Danakos. Construction phases. Plan and longitudinal section.

Figure 10. Fotodotis near Danakos. Interior view.

Figure 11. Theotokos at Demos. Actual state and representation. Plan and longitudinal sections.
Figure 12. Agios Ioannis at Grammata. Plan (actual state and representation) and sections.

Figure 13. Agios Ioannis at Grammata. Northeast view.

Figure 14. Stavros at Kakavas. Plan and longitudinal section.

Figure 15. Agios Ioannis at Avlonitsa. Plan and longitudinal section (section based on drawing by G. Mastoropoulos).

Figure 16. Agios Ioannis at Avlonitsa. East view.
Figure 17. Agios Ioannis near Kaloxylos. Plan and longitudinal section (based on drawings by G. Tsironis and G. Krokidis).

Figure 18. Monastiriotissa near Eggares. Plan and sections.

Figure 19. Agios Mamas at Dritis. Plan and sections.

Figure 20. Agios Mamas at Dritis. West view.
Figure 21. Agios Georgios at Ropiki. Plan (actual state and representation) and sections.

Figure 22. Agios Demetrios at Chalandra. Plan and longitudinal section.

Figure 23. Agia Kyriaki near Apeiranthos. Plan and sections.

Figure 24. Agios Artemios near Sangri. Plan and longitudinal section.

Figure 25. Agios Ioannis at Adissarou. Plan and sections (based on drawings by M. Acheimastou-Potamianou).
Figure 26. Panagia at Athalassou. Plan and longitudinal section.

Figure 27. Agios Ioannis at Sifones. Plan and longitudinal section.

Figure 28. Agios Georgios in Apeiranthos. Plan (actual state and hypothetical representation) and longitudinal section.

Figure 29. Agios Georgios in Apeiranthos. South view.
Figure 30. Panagia Kera at Ammomaxi. Plan and longitudinal section.

Figure 31. Agios Mamas near Potamia. Plan and longitudinal section.

Figure 32. Protothronos in Chalki. Plan and longitudinal section.
Figure 33. Agioi Apostoloi at Metochi. Plan, sections, north, south and east elevations.

Figure 34. Panagia at Aria. Plan and longitudinal section.

Figure 35. Agios Georgios at Epano Marathos. Plan, longitudinal section and north elevation.

Figure 36. Panagia Arkoulou near Sangri. Plan and sections.
Figure 37. Christos at Kathanychta. 
Plan and longitudinal section.

Figure 38. Christos at Kathanychta. Southeast view.

Figure 39. Agios Ioannis at Kaminos. 
Plan and longitudinal section.

Figure 40. Agios Stephanos in Tsikalario. 
Plan and longitudinal section.
Figure 41. Details of the four types of door openings:
1. Agia Kyriaki at Stavropigi, 2. Agia Kyriaki at Apeiranthos,

Figure 42. Details of the six types of window openings:

Figure 43. The plans of the Byzantine churches of Naxos (5th-12th centuries) arranged by architectural type.