

Geometric Mosaic Pavements at Ras ed-Deir, Jordan

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AT RAS ED-DEIR in northern Jordan, a church dating to 599/600 has been found to contain impressive and well-preserved mosaic pavements. We present here a comparative study of their geometric motifs. A peculiarity of the mosaic floors is that they are today almost purely geometrical in design as a result of iconoclasm.

The Ras ed-Deir church has been selected as a case study because it is one of the most important sites with a geometric mosaic pavement in northern Jordan. Our goal is to examine the specific aspects of geometric designs and to compare them with other pavements of the Roman and Byzantine periods, where influences in design within and between regions can be discerned.

Ras ed-Deir in northwestern Jordan is a tell dominating its surroundings, about 900 m. above sea level (*fig. 1*). Valleys surround it on all sides. It is in the immediate vicinity of another archaeological site, Khirbet al-Bediyeh,¹ and about 15 km. south of the town of Ajloun; to the north is the village of Kufanja. Gerasa is 20 km. to the east.

The Faculty of Archaeology and Anthropology excavation team started their work at this site in 2005. The work was directed by Prof. Zeidoun al-Muheisen of the Archaeology Department in the Institute (later the Faculty) of Archaeology and Anthropology. The main results were the discovery of re-

¹ For archaeological work in this area and for a map see Mohammad Nassar and Zeidoun al-Muheisen, "Geometric Mosaic Ornament at Khirbet al-Bediyeh, Jordan," *GRBS* 53 (2013) 591–609.



Figure 1. The Ras ed-Deir tell from the west

mains belonging to the Hellenistic, Roman, Byzantine, and Islamic periods: churches, a chapel, caves, various structures, a mosque, and cemeteries. Of the three Greek inscriptions on the floor of the Ras ed-Deir church, one, in the pavement of the north aisle, dates the dedication to 599/600 (*fig. 2*):

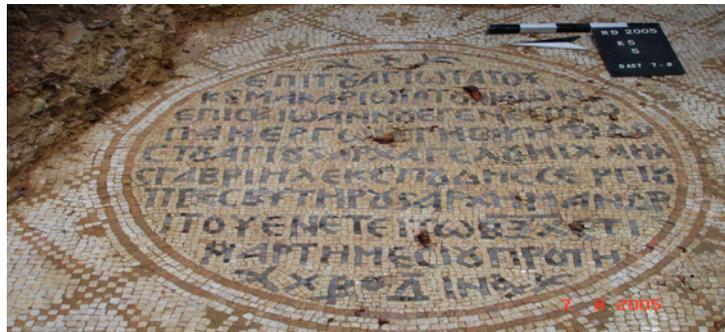


Figure 2. Principal inscription of the church

†

ἐπὶ τοῦ ἁγιωτάτου
καὶ μακαριωτάτου ἡμῶν
ἐπισκ(όπου) Ἰωάννου ἐγένετο τὸ
4 πᾶν ἔργον τῆς ψηφίδο-
ς τοῦ ἁγίου ἀρχαγγέλου Μιχαηλ
καὶ Γαβριηλ ἐκ σπουδῆς Σεργίου
πρεσβευτήρου καὶ ἀρχημανδρ-
8 ίτου ἐν ἔτει τῷ βξζ´ ἐ<π>ι
μη(νὸς) Ἀρτημεσίου πρώτη
χρό(νῳ) δ´ ἰνδ(ικτιῶνος).

Under our most holy and blessed bishop John was done the entire work of the pavement for the holy Archangel Michael and Gabriel, through the zeal of the priest and archimandrite Sergius in the year 662, the first of Artemisios, indiction 4.

Year 662 of the Pompeian era, which at Gerasa began in 63 B.C., places our inscription in 599/600; use of the Macedonian calendar (Artemisios) was normal for the region.

The plan of the church (*fig. 3*) is a basilica without apse, with a chancel, nave, aisles, and two side aisles (that on the southern side is lost). The entire floor of the church was covered with mosaic pavements. The decoration consists mainly of geometric patterns, though containing also a few bird and animal motifs. A plan with four aisles seems to be a rarity in churches of the region.

The chancel mosaics

The chancel, 3.50 m. east/west and 3.30 north/south, is enclosed by a plain strip motif (*fig. 4*).

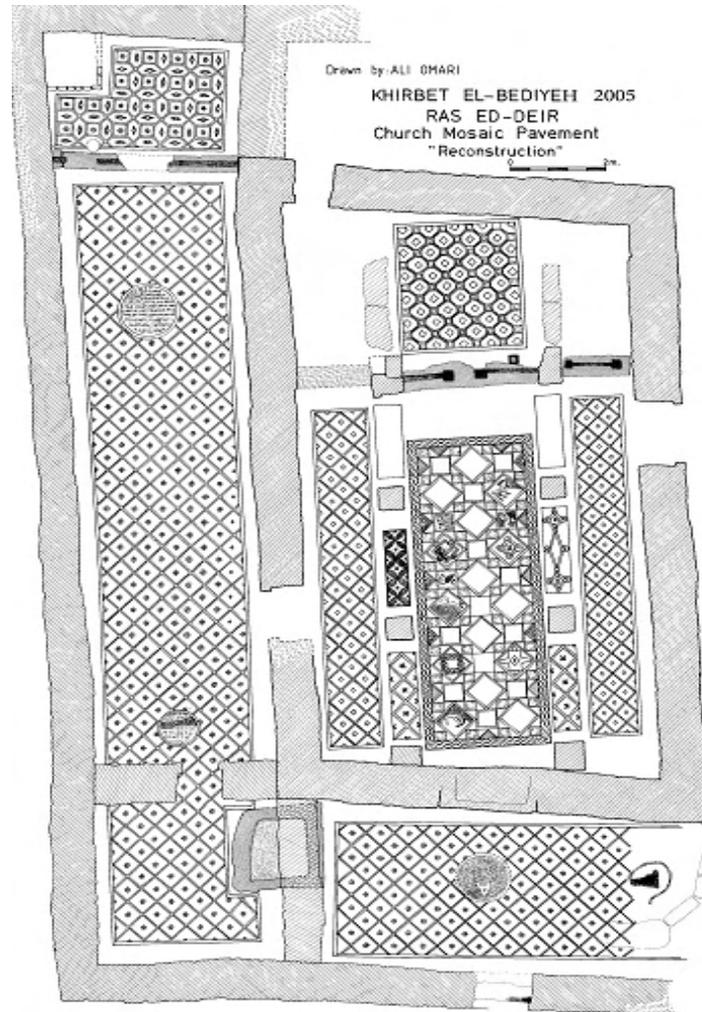


Figure 3. Plan of the mosaic pavements



Figure 4. Plain strip motif

The enclosed geometric pattern consists of rows of irregular octagons connected by swastika-meanders (*fig. 5*). The colours of the octagons are gray, dark red, and white on a white background. The octagons have in the center a crosslet in white, dark red, and gray, with a white background. The swastika is an equilateral cross with four arms extended to right or left and bent at 90 degrees. The colours of the swastika-meanders are white on a dark red background.



Figure 5. Chancel mosaic: octagons and swastika-meander

Similar decoration can be found at other Jordanian sites dating from Byzantine period, for example in the nave of the Bishop Marianus chapel at Gerasa, which dates to 570,² where the octagons and swastika-meanders are dark red on a white background. Other examples of this motif are found in both aisles of the Egumen Church at Khirbat al-Samra (Byzantine period).³ Here the design of the octagons and swastika-

² M. Gawlikowski and A. Musa, “The Church of Bishop Marianos,” in F. Zayadine (ed.), *Jerash Archaeological Project I* (Amman 1986) 137–162; M. Piccirillo, *The Mosaics of Jordan* (Amman 1997) 298, figs. 581, 583.

³ J.-B. Humbert, “Khirbet es-Samra du diocèse de Bosra,” in F. Zayadine

meanders pattern resemble those in the Ras ed-Deir church, with colours dark red on a white background.

There are two similar examples from Bulgaria: in the apse of the southern basilica at Marcianopolis (early fifth century), where the central octagons included a deferent motif such as pelta wheels; and at Sandanski, room 2 of the basilica of Bishop Ioannes (Justinianic), now in the Archaeological Museum of Sofia, where the central octagons included a fish.⁴ The colours of the octagons and swastika-meanders are again dark red with white background.

Significantly, the motif is considerably older, already in use in the Hellenistic period and common throughout the Roman period—thus e.g. the Domus dell’Ortaglia at Brescia (Museo di Santa Giulia, second century),⁵ where, the swastika-meanders are in the form of oblique angles of 45 degrees, while at Ras ed-Deir they are at right angles. Also, some of octagons include a deferent shape of crosslets as flowers. The colours are black with dark red background. In the underground mansion at Bulla Regia in north-western Tunisia⁶ (imperial period) the swastika-meanders resemble those found in the Domus dell’Ortaglia. The colours are black and white on a dark red background.

The swastika-meander pattern is found at other Jordanian sites of the Byzantine period, for example in the southern aisle of the Upper Church at Massuh (Esbuh).⁷ There the borders

(ed.), *Christian Archaeology in the Holy Land, New Discoveries: Essays in Honour of Virgilio C. Corbo* (Jerusalem 1990) 467–474; Piccirillo, *Mosaics of Jordan* 308, fig. 611.

⁴ J. Valeva, “Geometric Mosaics from Bulgaria,” in R. J. Ling (ed.), *Fifth International Colloquium on Ancient Mosaics* (Ann Arbor 1995) 224–264, at 260, fig. 12; 262; 264, fig. 16.

⁵ C. Balmelle, *Le décor géométrique de la mosaïque romaine* (Paris 1985) 255, pl. 166b.

⁶ A. Beschouch, R. Hanoune, and Y. Thébert, *Les ruines de Bulla Regia* (Rome 1977) 75, fig. 69; Balmelle, *Le décor géométrique* 257, pl. 167d.

⁷ M. Piccirillo, “La chiesa di Massuh e il territorio della diocesi di Esbous,” *LA* 33 (1983) 335–346; *Mosaics of Jordan* 252, fig. 437.

are a continuous swastika meander. Several examples are at Gerasa. In the nave of the church of Saints Cosmas and Damian (533)⁸ the swastika-meander is on a perspective design. In the southeastern *exedra* of the Saint John church (531)⁹ the borders of the city plan are a continuous swastika meander. In the nave of the church of Saint George (529/530)¹⁰ the swastika-meanders connect to make octagonal patterns. In the north apse of Procopius church (526)¹¹ the border is a continuous swastika-meander, also in the chapel of Elias, Maria, and Soreg (Byzantine)¹² and in the nave of the Bishop Marianus chapel (570).¹³ At Rihab the motif is used in the north aisle of the church of Saint Mary (582/3).¹⁴

The nave mosaics

The nave, 9.20 m. long and 2.90 wide, is framed by two column bases on each side. The mosaic in the centre is enclosed by a border extending around all four sides, consisting of two-stranded guilloche of dark red, light red, and white, with a dark grey background (*fig. 6*). This border pattern is widespread in mosaics of the Roman period.

The enclosed mosaic (7.40 m. long, 2.70 wide) has a composite motif (*fig. 7*) including squares of various sizes, some filled with geometric patterns such as circles with loops; and an interlaced motif and perspective design. There are remains of bird and animal motifs that were removed by iconoclasts. The

⁸ Piccirillo, *Mosaics of Jordan* 278–279, figs. 510, 511.

⁹ Piccirillo, *Mosaics of Jordan* 289, fig. 543.

¹⁰ Piccirillo, *Mosaics of Jordan* 287, fig. 535.

¹¹ Piccirillo, *Mosaics of Jordan* 293, figs. 559, 560.

¹² Piccirillo, *Mosaics of Jordan* 296, fig. 571.

¹³ Gawlikowski and Musa, in *Jerash Archaeological Project* 137–162; Piccirillo, *Mosaics of Jordan* 298, fig. 581.

¹⁴ M. Avi-Yonah, “Greek Christian Inscriptions from Rihab,” *QDAP* 13 (1947–48) 68–72; M. Piccirillo, “Le antichità di Rihab dei Bene Hasan,” *LA* 30 (1980) 317–350; *Mosaics of Jordan* 310, fig. 622.

colours of this mosaic are red, dark red, and blue, while the background colours are dark red and white.



Figure 6. Nave mosaic: Two-stranded guilloche border

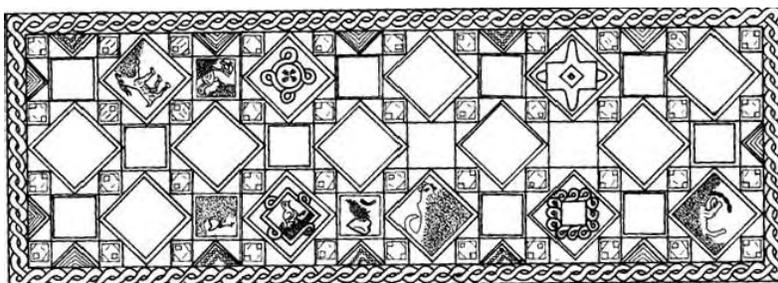


Figure 7. Nave mosaic: composite motif

Parallels in the area are for example the north room of the nearby church of Khirbet al-Bediyeh (640),¹⁵ which also seems to have had figurative motifs that have been removed by iconoclasts. Again, the northwest panel of the chapel of the Twal Family at Madaba (Byzantine)¹⁶ is decorated with a composite pattern including squares of various sizes, filled with interlace motifs and birds. Two similar examples are at Antioch: Room 29, Bath A (300–350); and the eastern aisle of the Kaoussie church (Martyrion of Saint Babylas: 387).¹⁷

¹⁵ Nassar and al-Muheisen, *GRBS* 53 (2013) 608, fig. 19.

¹⁶ S. Saller and B. Bagatti, *The Town of Nebo (Khirbet el-Mekhyyat)* (Jerusalem 1949) 236–238; Piccirillo, *Mosaics of Jordan* 128, fig. 141.

¹⁷ S. Campbell, *The Mosaics of Antioch* (Toronto 1988) 13, pls. 46, 133.

Circle with loops motif

The design in the southern part of the nave consists of four loops, decorated with a stylised crosslet at the center (*fig. 8*). It is surrounded by a dark gray square with white background. The colours of the circle with loops are dark gray, dark red, and light red, with white background. This pattern, it seems, is found in the region only in the Ras ed-Deir church.



Figure 8. Nave mosaic: Circle with loops motif

Square with four loops motif

The motif in the northwest of the nave is composed of a square with four loops; inside the square is a bird (*fig. 9*). The colours are red, dark gray, dark red, and light red against a white background. This pattern too is found only here in the region.



Figure 9. Nave mosaic: Square with loops motif

Square with eight loops motif

The design at the western end of the nave includes a square with eight loops (*fig. 10*); the inner parts seem to have been removed by iconoclasts. The colours are dark gray, dark red, and light red, on a white background. This design again seems confined to Ras ed-Deir.

Northern intercolumniation mosaics

The northern intercolumniation contains three panels; the easternmost is empty, its decoration apparently removed by iconoclasts. The others exhibit diverse motifs.



Figure 10. Nave mosaic: Square with eight loops motif

Intersecting circles motif

The geometric pattern of the eastern panel (*fig. 11*) has an outer border around a recessed-plain strip motif. The pattern consists of intersecting circles forming quatrefoils, with stylised crosslets in the centers of the quatrefoils. The colours are dark red on a white background.



Figure 11. Northern intercolumniation: Intersecting circles motif

The intersecting circles motif became widespread in Jordan during the Byzantine period. One example is in the southern intercolumniation and the southern aisle of the nearby Khirbet al-Bediyeh church (640).¹⁸ A similar example is at Madaba, in the north intercolumnar panel of the church of the Apostles (578).¹⁹ Others are in the north aisle of the church of Bishop Leontios at Ya'amun,²⁰ at Rehab in the apse of the church of Saint Menas (635),²¹ and at Gerasa in the chancel of the Bishop Marianus chapel (570).²²

This motif too is a good deal older, found in the Hellenistic period and common throughout the Roman period. One example is in the Hospitalia of Hadrian's Villa at Tivoli (118).²³ Others are in Turkey: one is in Terrace House 2 at Ephesus (late III/early IV).²⁴ Three are at Aphrodisias: in the Basilica (365–380),²⁵ where the intersecting circles are dark blue and the quatrefoils are white and yellow with white, while the crosslet on the central curvilinear is dark blue; in the North Room of the Temenos Complex (350–375),²⁶ where again the central quatrefoils are decorated with crosslets similar to those at Ras

¹⁸ Nassar and al-Muheisen, *GRBS* 53 (2013) 605, 607, figs. 14, 18.

¹⁹ U. Lux, "Die Apostel-kirche in Madaba," *ZDPV* 84 (1968) 106–129; Piccirillo, *Mosaics of Jordan* 106, fig. 91.

²⁰ M. Nassar and N. Turshan, "Geometrical Mosaic Pavements of the Church of Bishop Leontios at Ya'amun," *PEQ* 143 (2011) 41–62, fig. 21.

²¹ U. Lux, "Der Mosaikfussboden der Menas-Kirche in Rihab," *ZDPV* 83 (1967) 34–41; Piccirillo, *Mosaics of Jordan* 313, figs. 634, 635.

²² Gawlikowski and Musa, in *Jerash Archaeological Project* 137–162; Piccirillo, *Mosaics of Jordan* 298, fig. 581.

²³ R. Ling, *Ancient Mosaics* (London 1998) 47, pl. 31.

²⁴ K. Dunbabin, *Mosaics of the Greek and Roman World* (Cambridge 1999) 226, pl. 223.

²⁵ K. T. Erim, "Aphrodisias in Caria: The 1972 Campaign Excavations," *TürkArkDerg* 21 (1974) 37–52, figs. 28–33; S. Campbell, *The Mosaics of Aphrodisias in Caria* (Toronto 1991) 29, pl. 105.

²⁶ K. T. Erim, "Aphrodisias in Caria: 1965 Campaign," *TürkArkDerg* 15 (1966) 59–67, and "Archaeology in Asia Minor," *AJA* 71 (1967) 171–172; Campbell, *Mosaics of Aphrodisias* 2, pl. 7.

ed-Deir; and in Room 5 of the Priest's House (mid-V),²⁷ where the centers of the quatrefoils have small crosslets.

Lozenge motif

The geometric pattern of the western panel (*fig. 12*) is a row of diagonal grids in lozenge shape, with stylised crosslets in the centers of the lozenges. The colours are dark red on a white background.



Figure 12. Northern intercolumniation: lozenge motif

The resample lozenge pattern is found at other Jordanian sites of the Byzantine period, for example at Mount Nebo in the north aisle of the upper church of Kaianus at Uyun Musa.²⁸ Another example is at the west door of the Jabal al-Akhdar chapel in Amman.²⁹ There are two examples at Gerasa, one in the Hall of the Blues (578)³⁰ and one in the apse of the Bishop Marianus chapel (570).³¹ Also in Jordan is the

²⁷ Campbell, *Mosaics of Aphrodisias* 25, pl. 92.

²⁸ M. Piccirillo, "Una chiesa nell' wadi Ayoun Mousa ai piedi del monte Nebo," *LA* 34 (1984) 307–318; M. Piccirillo and E. Alliata, "La chiesa del monastero di Kaianos alle 'Ayoun Mousa sul Monte Nebo," in *Quaeritur inventus colitur: miscellanea in onore di padre Umberto Maria Fasola* (Rome 1989) 536–586; Piccirillo, *Mosaics of Jordan* 190, fig. 276.

²⁹ Piccirillo, *Mosaics of Jordan* 269, fig. 500.

³⁰ Piccirillo, *Mosaics of Jordan* 282, fig. 524.

³¹ Gawlikowski and Musa, in *Jerash Archaeological Project* 137–162; Piccirillo, *Mosaics of Jordan* 298, fig. 581.

southern intercolumnar of the second church at Yasileh (528).³² Two examples are at Rihab, one in the intercolumnar panels of the church of Saint Peter (623)³³ and one in the northern intercolumnar panel of the church of Saint Menas (635).³⁴

This motif was already old, attested in the Hellenistic period and common in the Roman period: we find it, for example, in Rooms 1 and 2 of the Priest's House at Aphrodisias in Caria (mid to late V);³⁵ the centers of the diamonds are decorated with crosslet similar to those at Ras ed-Deir.

Southern intercolumniation mosaics

The southern intercolumniation has three panels. The easternmost is empty; probably its decoration was removed by iconoclasts. The western panel has lozenges similar of those in the northern intercolumniation (*fig.* 12). The central panel is decorated with two interlooped circles and a lozenge (*fig.* 13).³⁶ Inside each circle is a crosslet in white, dark red, and gray on a white background. This design seems to appear in the region only at Ras ed-Deir.

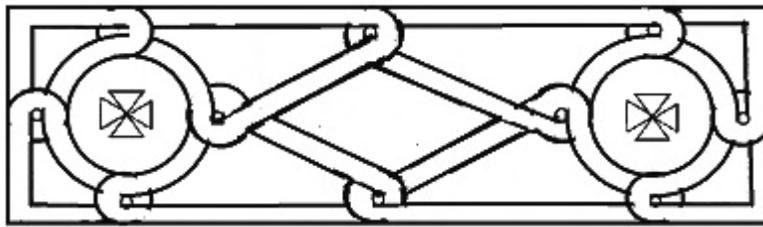


Figure 13. Southern intercolumniation: looped circles/lozenge

³² Z. al-Muheisen and M. Nassar, "The Second Church at Yasileh," *GRBS* 52 (2012) 671, fig. 11.

³³ Avi-Yonah, *QDAP* 13 (1947–48) 68–72; Piccirillo, *LA* 30 (1980) 317–350; *Mosaics of Jordan* 313, fig. 633.

³⁴ Lux, *ZDPV* 83 (1967) 34–41; Piccirillo, *Mosaics of Jordan* 313, fig. 635.

³⁵ Campbell, *Mosaics of Aphrodisias* 22, pls. 80–82.

³⁶ M. Nassar, "Catalogue of Geometric Mosaic Pavements of Jordan during the Byzantine Period" (unpublished, n.d.) fig. 2.3: 7.

The aisle mosaics

The church had four aisles, of which the southernmost, now destroyed, may be later. The surviving aisles have a design of lozenge motifs, with a crosslet in the center of each lozenge (*fig. 14*). The pattern in the northern intercolumniation is similar, but there the crosslet design is deferent.



Figure 14. The aisles: lozenge motif

The northeast room mosaics

The northeast room (4.20 m. long and 2.80 wide) has a pattern of overlapping octagons (*fig. 15*). The nineteen octagons are made up of 41 hexagons with small squares in the

center. Each hexagon contains a lozenge. In the centers of the squares and diamonds are crosslets. The colours are dark red on a white background.



Figure 15. Northern room: overlapping octagons

This pattern is known in other Byzantine churches in Jordan, for example both aisles of the western church at Yasileh (mid-V to early VI),³⁷ where the colours are dark red, light red, and dark blue against a white background. So too the south aisle of

³⁷ M. Nassar and Z. al-Muheisen, “Geometric Mosaic Pavements of Yasileh in Jordan,” *PEQ* 142 (2010) 184, fig. 4.

the church of Procopius at Gerasa (526)³⁸ and the south aisle of the church of Saint Menas at Rehab (635).³⁹

This type of overlapping guilloche octagons is found elsewhere in the Near East in the Roman and Byzantine periods: so in Room 4 of Bath E at Antioch (305),⁴⁰ where however the center of each octagon contains a reversed swastika. In the north room of the Tetrapylon House at Aphrodisias (VI)⁴¹ the hexagons are decorated with segments of two-stranded guilloches alternating in red and white; in the centers of the octagons are small red squares outlined with frames of alternating dark blue, white, and light blue.

The narthex mosaics

The narthex on the west side of the church (8.20 m. long and 3.80 wide) is decorated with a pattern of lozenges. The colours are dark red on a white background. This pattern is also used in the two panels exterior to the columns, and in the aisles of the church.

Conclusions

The Ras ed-Deir geometric mosaics, like those at neighboring Khirbet al-Bediyeh, show the high ability and technical skill of the artists, using only locally available stone. Comparative study of the motifs has increased our understanding of their relationship to other Byzantine sites. Ras ed-Deir benefited from the talents of one of the superior Byzantine mosaic schools in the Levant, specializing in geometrical designs. Also, we find two designs that make their first appearance in the Ras ed-Deir church: a composite motif (*fig. 7*), which was adopted a little later at Khirbet al-Bediyeh (640), and an overlapping octagons motif (*fig. 15*), which appears a few decades later in the church of Saint Menas at Rehab in eastern Jordan (635).

³⁸ Piccirillo, *Mosaics of Jordan* 293, fig. 560.

³⁹ Lux, *ZDPV* 83 (1967) 34–41; Piccirillo, *Mosaics of Jordan* 314, fig. 634.

⁴⁰ Campbell, *Mosaics of Antioch*, pl. 35.

⁴¹ Campbell, *Mosaics of Aphrodisias*, pl. 56.

The authors hope that these findings will further enrich the literature on this significant subject.⁴²

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⁴² The authors would like to thank Prof. Kent Rigsby for transcribing the inscription. Also many thanks to Mr. Yousf al-Zoubi for photographs of the mosaics and Mr. Ali al-Omari for drawing the area map (*GRBS* 53 [2013] 592) and the plan of the mosaic pavements of the church.