Khirbet al-Bediyeh in northern Jordan has revealed a church, dated to A.D. 640, in which we have uncovered one of the most impressive and best preserved mosaic pavements with geometric patterns in the Near East. The Khirbet al-Bediyeh mosaicists were masters of their craft. They combined motifs that had enjoyed a long popularity since the early Imperial period with new designs appearing here for the first time, so far as is known.

The ‘First Church’ of Khirbet al-Bediyeh is accordingly one of the most important sites with a geometric mosaic pavement in Jordan, and is thus worth a case study. Our purpose is to examine the details of the geometric designs and compare other pavements from the Roman and Byzantine periods, where influences in design within and between regions are known. Wherever possible, comparative examples have been chosen from sites that are relatively nearby so that a comprehensive overview of mosaic production in the region may be obtained. Moreover, every effort has been made to discern the major sources of influence on mosaic production at Khirbet al-Bediyeh and, in particular, to distinguish the influences coming from Asia Minor and other locations of the Classical, Hellenistic, and Roman periods.

Al-Bediyeh and Ras ad-Deir are neighboring tells, 15 km. southwest of Ajloun and 3 km. southeast Kufranjeh, which is also an archaeological site (fig. 1). Gerasa is 20 km. to the east, and Pella, in the Jordan Valley, is about the same distance. Nearby are the Kufranja and Rajib valleys with their many water sources (about 1000 wells), used for farming in summer.
Khirbet al-Bediyeh is a tell dominating its surroundings, with valleys on all sides (fig. 2). The site is ca. 900 m. above sea level. The most important archaeological remains are on and around it the main tell. Because of modern agricultural use, many archaeological remains have been lost or destroyed. Still, the remains are considerable, though badly preserved.
The region of al-Bediyyeh was visited and described by some travelers during the nineteenth and twentieth centuries. One of the first who noted archaeological remains was Steuernagel, who mentioned the presence of an ancient church. Subsequent excavations uncovered the four walls of a small church, and many pottery fragments in the area that indicated dense settlement from the Umayyad to the Ottoman period. During his trip to the Ajloun region in October 1896, Schumacher visited al-Bediyyeh and emphasized the importance of the archaeological remains.\footnote{D. C. Steuernagel, “Der ‘Adschlūn,” ẒDPV 48 (1925) 201–392, at 322–324.} The al-Badiyyah area was also described by Mittmann, who worked in the region between August 1963 and January 1966.\footnote{S. Mittmann, Beiträge zur Siedlungs- und Territorialgeschichte des nördlichen Ostjordanlandes (Wiesbaden 1970) 84, 230.} He confirmed the results mentioned by Steuernagel, that the area contained the remains of a church and much pottery, dating these remains to the first through the sixth century.

The Faculty of Archaeology and Anthropology excavation team started their work in this region in 1998, directed by Prof.
Zeidoun al-Muheisen of the Archaeology Department in the Institute of Archaeology and Anthropology which later became the Faculty of Archaeology and Anthropology, Yarmouk University. The excavation work was in al-Bediyeh from 1998 until 2003 and in Ras ad-Deir in 2005. The main results were the discovery of remains of Hellenistic, Roman, Byzantine, and Islamic date: churches, a chapel, caves, various constructions, a mosque, and cemeteries. The mosaic pavements in the First Church are badly preserved. The most important part of this floor is the area in front of the chancel step (fig. 3), which contains a panel framing a five-line Greek inscription dating the construction to the year 703 (A.D. 640):

Figure 3. El-Bediyeh Church, Greek inscription

υ ἐπισκόπου ἐτελθή<sup>ἔθη</sup> τού ἁγίου μαρτύριου ΛΟΥϹΥ θ´, γψ´ ἐτούς}.
Figure 4. Restored plan of mosaic pavement of the First Church at Khirbet Al-Bediye

The panel is surrounded by a continuous frame of medallions with a repeated rosette and various images such as birds,

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squares filled with several colors, grapes—images from the local environment.

The plan of the church (fig. 4) is that of a typical basilica. It measures 17.40 m. on the north side and 16.20 on the south (exterior length); the interior lengths are 15.00 on the north and 14.10 on the south. The west wall is 9.60 (interior) and 10.60 (exterior). The church possesses an apse, chancel, nave, and side aisles. All parts of the church were covered with mosaic pavements, although it is mainly the areas with geometrical patterns that survive.

The apse and chancel: Squares and diamonds pattern

The apse of the church is 2.35 m. deep and 3.75 wide; the chancel measures 4.70 x 2.80 m.. Their mosaic floor is enclosed by plain strip border motif (fig. 5).

Figure 5: Plain strip motif

The enclosed geometric pattern consists of squares and diamonds (fig. 6). This multicolored mosaic carpet uses white, red, orange, and black colors. This pattern also was used in the southern room. This motif is also found elsewhere, such as in the intercolumniations in the First Church at Yasileh, and the south aisle in the Ya’amun church.4


**Figure 6**: Apse and chancel, squares and diamonds

*The nave*

The nave mosaic of the church is 5.65 m. wide and 10.20 long; three column bases border each side. The mosaic is enclosed within a double border, the outer a double guilloche motif, the inner a meander motif.

*Double guilloche motif*

The outer border extending around all four sides consists of a tongued double guilloche motif (fig. 7). Similar motifs can be found at other sites in Jordan dating to the Byzantine period, for example in the north aisle of the Church of Procopius at Gerasa (A.D. 526). There are two similar examples in the Madaba area: the lower mosaic of the old Diakonikon Baptistry at Mount Nebo-Siyagha (A.D. 530), and at Umm al-Rasas in the south aisle of the Church of the Lions (574 or 589). We find an example in

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8 M. Piccirillo, “Umm er Rasas-Kastron Meťāa. Quarta campagna,” *Liber...*
the lower floor of the church at Pella (Tabaqt Fahal), dating from the
Byzantine period.\footnote{R. H. Smith, \textit{Pella of the Decapolis II} (Wooster 1989) 172, pl. 18D; Piccirillo, \textit{Mosaics of Jordan} 330, pl. 706.} The double guilloche motif also
appears in the south aisle of the Lower Church of Quwaysmeh
at Amman (717/8).\footnote{S. Saller and B. Bagatti, \textit{The Town of Nebo (Khirbet al-Mekhayyat)} (Jerusalem 1949) 254; M. Piccirillo, \textit{Le chiese di Quweismeh-Amman}, \textit{Liber Annuus} 34 (1984) 329–340; \textit{Mosaics of Jordan} 266, pls. 480, 484, 485.} The pattern is also known from Israel, in
aisle of the St. Elias church at Kissufim (sixth century).\footnote{Hachlili, \textit{Ancient Mosaic Pavements} 159–160, pl. VII.4.}

Three examples are found in the northern Levant at Antioch: in the Byzantine phase of the temple of Aphrodite;\footnote{S. Campbell, \textit{The Mosaics of Aphrodisias in Caria} (Toronto 1991) 8, pl. 24.} the mosaic of Ananeosis (fifth century);\footnote{E. Kitzinger, \textit{“Stylistic Developments in Pavement Mosaics,” in La Mosaïque gréco-romaine} (Paris 1965) 344, fig. 6.} and in the Yako Complex, upper level room B, the mosaic of Megalopsychia (ca.
An instance in Dacia is at Apulum, of Roman imperial date.\textsuperscript{17}

Significantly, this motif is quite old, already in use in the Hellenistic period and a common design throughout the Roman period. An example from Egypt is the Shatby Stag Hunt from Alexandria (third century B.C.).\textsuperscript{18} Another is in the Agora of the Italians on Delos (130–88 B.C.).\textsuperscript{19} Finally, in Britain we find the motif in the Lion Mosaic at Verulamium (second century)\textsuperscript{20} and in a villa with numerous mosaics at Hemsworth (fourth century).\textsuperscript{21}

\textit{Meander motif}

The inner border of the nave consists of a meander pattern (fig. 8). Similar motifs can be found at other sites in Jordan, for example, in the northern chamber of the Second Church at Yasileh (528) and in the chancel of the Ya’amun church.\textsuperscript{22} A similar design is in the Church of Lions at Umm al-Rasas.\textsuperscript{23}

\begin{footnotesize}
\begin{enumerate}
\item[16] Kitzinger, in \textit{La Mosaique} 345, fig.7; Hachlili, \textit{Ancient Mosaic Pavements} 167, fig. VII.7.
\item[19] Dunbabin, \textit{Mosaics} 32, fig. 31.
\item[20] A. Rainey, \textit{Mosaics in Roman Britain} (Newton 1973) 133, pl. 16a; S. Tebby, “Geometric Mosaics of Roman Britain,” in \textit{Fifth International Colloquium} I 265, fig. 9.
\item[21] D. Johnston, “Some Possible North African Influences on Romano-British Mosaics,” in \textit{Fifth International Colloquium} I 296, fig. 1.
\end{enumerate}
\end{footnotesize}
Gerasa are examples in the Church of John the Baptist (531)\textsuperscript{24} and the Church of Bishop Isaiah (Byzantine).\textsuperscript{25} Another is in the central part of the church at Pella (Byzantine).\textsuperscript{26}

![Figure 8. Inner border of the nave, meander motif](image)

*The nave*

The nave is decorated with two panels; the first has a looped motif, the second a composite pattern.

*Looped circles and squares motif*

The mosaic of the panel at the eastern end of the nave is composed of looped circles and squares (fig. 9); nine circles and squares, each circle joining an outer and inner square, surround the Greek inscription.

![Figure 9. Eastern panel of the nave, looped pattern](image)

Similar decoration can be found at other Jordanian sites of the Byzantine period, for example in the north aisle of the church of Saint George at Khirbet as-Samra (637);\textsuperscript{27}


\textsuperscript{26} Smith, *Pella II* 140, pl. 14; Piccirillo, *Mosaics of Jordan* 330, pl. 703.

\textsuperscript{27} J.-B. Humbert, “Khirbet es-Samra du diocèse de Bosra,” in G. C. Bottini et al. (eds.), *Christian Archaeology in the Holy Land. New Discoveries. Essays*

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nave and southern aisle of the church of Bishop Leontios at Ya’amun (late V to early VI);\textsuperscript{28} and at Yasileh in the First Church (mid V to early VI).\textsuperscript{29} Farther afield, motifs of looped circles are in rooms 3 and 4 of the Priest’s House at Aphrodisias in Caria (late V);\textsuperscript{30} and in the House of the Phoenix at Antioch (sixth century).\textsuperscript{31}

\textit{Composite pattern}

The second and larger panel of the nave has ten octagons joining squares and circles in looped motifs (\textit{fig. 10}). It seems that in the ten octagons there were figurative motifs which have been removed by iconoclasts. Quite a similar example is at

\begin{figure}
\centering
\includegraphics[width=0.5\textwidth]{composite_pattern}
\caption{Nave, composite pattern}
\end{figure}

\textit{Composite pattern}

\begin{figure}
\centering
\includegraphics[width=0.5\textwidth]{composite_pattern}
\caption{Nave, composite pattern}
\end{figure}

\textit{in Honour of V. C. Cordo} (Jerusalem 1990) 467–474; Piccirillo, \textit{Mosaics of Jordan} 330, pl. 703.

\textsuperscript{28} Nassar and Turshan, \textit{PEQ} 143 (2011) 55, 60, figs. 17 and 23.

\textsuperscript{29} Nassar and al-Muheisen, \textit{PEQ} 142 (2010) 184, fig. 16.

\textsuperscript{30} Campbell, \textit{The Mosaics of Aphrodisias} 23, pl. 84.

\textsuperscript{31} S. Campbell, \textit{The Mosaics of Anemurium} (Toronto 1998) 25, pl. 120.

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Rehab (fig. 11), in the nave of the Church of Saint Mary (582/3), but there the patterns are more intertwined than at Khirbet al-Bediyeh.

![Image of geometric ornament]

*Figure 11: Rehab, Church of Saint Mary*

**The southern intercolumniations**

In the southern intercolumniations are three panels: deferens motifs; a multi-swastika meander motif; intersecting circle and squares and circles interlooped. An outer border of serrated saw-tooth pattern frames the eastern first panels of each side of the nave (fig. 12).

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33 Nassar, “Catalogue” fig. 1: 1.8.
Many parallels are found in Byzantine churches in Jordan: for example, the outer border of the inscription in the Ya‘amun church;\(^{34}\) in Church II at Yasileh;\(^{35}\) in the chancel of the Church of the Lions at Umm al-Rasas;\(^{36}\) in the southeast corner of the nave of the Church of the Virgin Mary at Madaba (eighth century);\(^{37}\) in the chancel of the North Church at Hesban (Ésbus) (Byzantine);\(^{38}\) at Massuh near Hesban in the nave of the Lower Church (Byzantine);\(^{39}\) at Gerasa the border of the inscription in the church of Saints Cosmas and Damian (533);\(^{40}\) and a similar border at Rihab in the church of Mary (533);\(^{41}\) and in the central nave of the church of Pella.\(^{42}\)

**Multi swastika-meander**

The geometric pattern of the eastern panel (fig. 13) has an outer border around recessed-returned swastikas that divide squares containing birds.

\(^{34}\) Nassar and Turshan, *PEQ* 143 (2011) 44, fig. 2.
\(^{40}\) Kraeling, *Gerasa* 331, pl. LXXIII; Piccirillo, *Mosaics of Jordan* 288, pl. 538.
\(^{42}\) Smith, *Pella II* 127, pl. 18B; Piccirillo, *Mosaics of Jordan* 254, pl. 447.
The swastika-meander design is found at several sites in Jordan of Byzantine date: the First Church at Yasileh has a swastika-meander border with recessed double reverse-returned swastikas dividing squares. Some squares are filled with a checkerboard pattern or with four-petal rosettes. The swastika-meander is dark red on a white background while the checkerboard squares are multi-coloured, dark red, pink, yellow, and light blue on a white background. The rosettes are white on a dark red background. Another example from the region is in the Prophets Church at Gerasa (464/5). This motif can be traced back to the Roman period. The floor of the Promontory Palace at Caesarea in Israel (II–early III) has a similar border, though there the swastika-meander is white on a black background; it also has squares with the checkerboard pattern, the frame being outlined in white against a black background, with the checkerboard itself in white, black, and yellow. A second example in Israel, but much later, is in a synagogue in Gaza Maiumas (508/9); the colours there are similar to those in the Promontory Palace at Caesarea.

44 Kraeling, Gerasa 337, pl. LXXVIII; Piccirillo, Mosaics of Jordan 286–287, pl. 535.
45 Y. Turnheim and A. Ovadiah, RivIstArch Suppl. 27 (2002), ill. 101.
46 Turnheim and Ovadiah, RivIstArch Suppl. 27 (2002), ill. 108.
Intersecting circles motif

The middle panel features a motif of intersecting circles (fig. 14). Crosses are formed in the spaces between each grouping of four petals and two circles. Inside of each petal is a small petal. This pattern was also used in the floor of the south aisle (fig. 18). The quatrefoil pattern was widespread in Jordan in the Byzantine period; thus in the nave of the church of Saint Menas at Rehab (635), and in the north aisle of the church of Bishop Leontios at Ya‘amun. Significantly, this motif is a good deal older, already in use in the Hellenistic period and a common design throughout the Roman period: e.g., in the Hospitalia of Hadrian’s Villa at Tivoli (118) and in Terrace House 2 at Ephesus (late III/early IV).

Figure 14. Southern intercolumniations, intersecting circles

Squares and circles interlopped

The geometric pattern of the western panel (fig. 15) is a row of squares and circles interlopped tangentially, in asymmetrically shaded bands. Inside of each square is a cross, and inside of each circle is a diamond.

50 Dunbabin, *Mosaics* 226, pl. 223.
The northern intercolumniations

Three panels are in the northern intercolumniations, decorated with deferens motifs; only the eastern one survives, the second and the third having been destroyed. This is decorated with a floor motif (fig. 16) surrounded by a saw-tooth border.

The northern aisle

The panel of the northern aisle (13.20 m. long, 2.35 wide) is decorated with tangent scales in outline, each with a flower inside (fig. 17).
Two parallels are in the Madaba area: in the baptistry (Dia-
konikon) of the Memorial of Moses at Mount Nebo-Siyagha
(530), and in the southern intercolumniation of the church of
Bishop Sergius at Umm al-Rasas. Others are at Khirbet as-
Samra in the church of St. Peter (Byzantine); in the apse of
the church of St. Basil at Rihab (594); and in the central
church at Pella.

Southern aisle: intersecting circles

The southern aisle (13.20 m. long, 2.35 wide) is decorated
with intersecting circles (fig. 18) similar to those in the middle
panel of the southern intercolumniation.

The northern room: composite motif

The northern room (2.66 m. long, 2.20 wide) is decorated
with squares of various sizes, filled with an interlaced motif (fig.
19); the fifteen squares seem to have been filled with figurative
motifs that have been removed by iconoclasts.

51 V. Corbo, “Nuovi scavi archeologici nella cappella del Battistero della
Basilica del Nebo (Siyagha),” Liber Annus 17 (1967) 241–258; Piccirillo,
Mosaics of Jordan 147, pl. 184.

52 M. Piccirillo, “Le iscrizioni di Um er-Rasas = Kastron Mefaa,” Liber

53 Humbert, in Christian Archaeology 467–474; Piccirillo, Mosaics of Jordan
307, pls. 606–608.

54 Avi-Yonah, QDAP 13 (1947/8) 68–72; Piccirillo, Liber Annus 30 (1980)
317–350; Mosaics of Jordan 311, pl. 626.

55 Smith, Pella 127, pl. 17d; Piccirillo, Mosaics of Jordan 331, pl. 703.
A similar example is at Madaba, in the northwest panel of the Chapel of the Twal Family (Byzantine), with a composite pattern of squares of various sizes, filled with interlaced motifs and birds. Two others are at Antioch: in Bath A, Room 29 (300–350), and in the eastern aisle of the Kaoussie Church (Martyrion of St. Babylas) (387).

**Southern room: Squares and diamonds pattern**

The southern room of the church (2.66 m. long, 2.20 wide) is decorated with squares and diamond (fig. 20), a pattern similar to that in the apse/chancel.

**Conclusions**

Jordan offers valuable testimony for the study of the geometric mosaic designs in late antiquity. The skill of the artists here is seen in the refinement of the final products, a high level of technique as measured by repetition, similarity, and uniformity. Surveying analogues adds to our understanding of the

56 Saller and Bagatti, *Town of Nebo* 236–238; *Mosaics of Jordan* 128, fig. 141.

57 S. Campbell, *The Mosaics of Antioch* (Toronto 1988) 13, pl. 46, and 45, pl. 133.
relationship between Khirbet al-Bediyeh and other Byzantine sites and their artistic achievements. The discoveries strongly demonstrate that this area was one of the most important mosaic production centers in the Byzantine Levant. Two designs make their first appearance, and the composite pattern with octagons and looped motifs is found a few decades later in the Church of St. Mary at Rihab in southwest Jordan. The authors hope that these findings will spur further research on these designs.

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Figure 20. Southern room, squares and diamonds motif