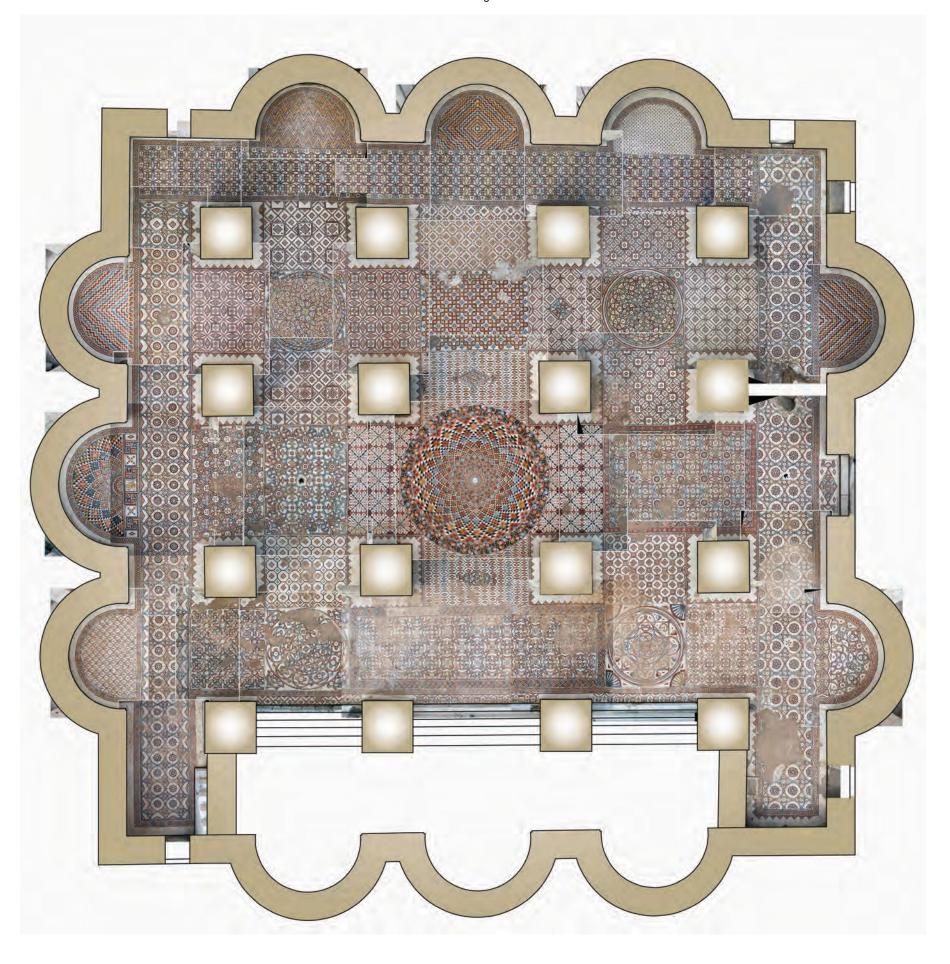


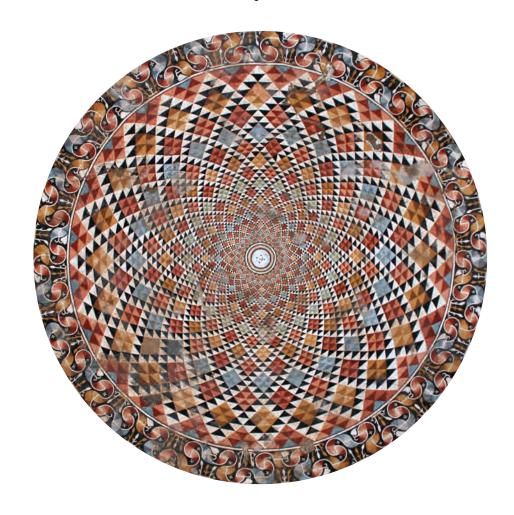
Hamdan Taha and Donald Whitcomb

The Mosaics of Khirbet el-Mafjar Hisham's Palace









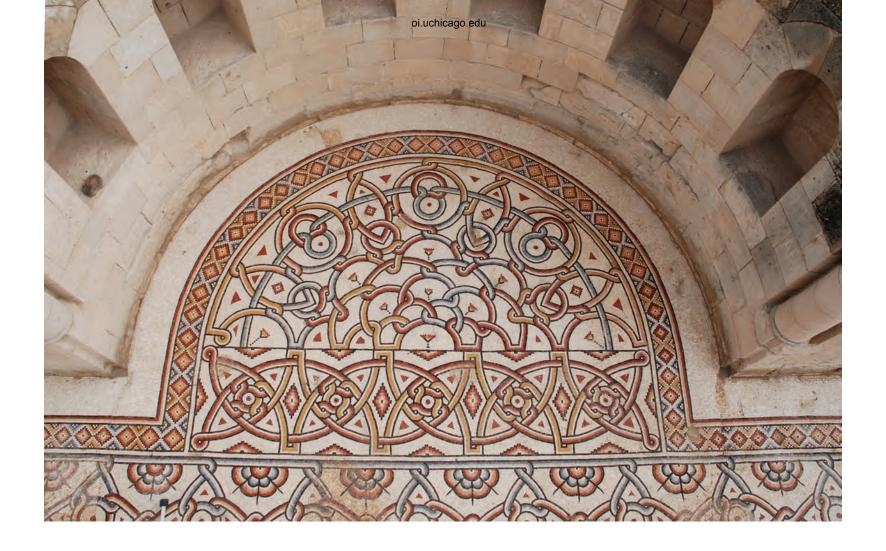
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Ḥamdān Tāhā and Donald Whitcomb

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Ḥamdān Tāhā and Donald Whitcomb

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Foreword

Khirbet el-Mafjar, identified with Qasr Hisham in Jericho, is an iconic site in Palestine. The site was excavated by the Palestinian archaeologist Dr. Dimitri Baramki from 1934 until 1948. Since the interim agreement, the Palestine Department has taken responsibility for the conservation and presentation of these wonderful monuments (Tāhā 1995, 2005, 2009, 2010). These efforts have led to a series of restorations during the last two decades.

A program for restoration and rehabilitation was launched in 1996 in cooperation with UNESCO and Studium Biblicum Francescanum. This resulted in updated topographic map and a masterplan which focused on the restoration of the mosaic of the *sirdab* (the small bath). The restoration of the mosaics of the audience hall was facilitated through a mosaic laboratory established with the financial and technical assistance of the Italian government. This mosaic restoration component has produced a number of skilled local restorers. Future work will focus on other aspects of the management plan, in particular a shelter for presentation of the mosaics.

In 2008, a comprehensive rehabilitation project with ANERA resulted in establishing the interpretation center, a small site museum, and construction of access roads and parking lots. An introductory film was produced in cooperation with JICA.

Since 2010 the Department has engaged with the University of Chicago in a joint cooperation of archaeological research, focusing on the northern area. New aspects of Qasr Hisham are due to the Palestinian and international scholars who have worked on these excavations. This cooperation produced a fine new museum opened in 2014 dedicated to visitor education and presentation of this important information.

With the sheltering of the mosaics, the site of Khirbet el-Mafjar will become a prime destination for tourists and a pride of the Palestinian State.

Minister of Tourism and Antiquities Rula Maya'a



Introduction

This is a presentation of beautiful colored mosaics. They originate from buildings in the oasis of Jericho and all date from the first half of the eighth century, during the time of the Umayyad caliphate of the early Islamic period. Many visitors have had the privilege of seeing the mosaics revealed, but no one has experienced the impact of all these pavements since they were first excavated in the 1930s and 1940s. A few have been published, but the presentation in Hamilton 1959 is only very fine aquarelle paintings from the originals.

In 2010 the Department of Antiquities and Cultural Heritage uncovered, cleaned, and assessed the state of conservation of these mosaics. A series of high-quality digital photographs was prepared by a team from the Department, composed of M. Diab, N. Khatib, Said Ghazal, Rafaat Sharaia, and I. Hamdan, under the direction of Ḥ. Tāhā, from which the present selection is offered for study and appreciation of this triumph in early Islamic art. These images speak for themselves, to which we add the following brief comments.

Location and Identification of Qasr Hisham

The site of Hisham's Palace is located on the northern bank of Wadi Nueima, about four kilometers north of Jericho (Ariha) in the Jordan Valley (Tāhā and Qleibo 2010) (figs. 1, 2). The ruins have been identified as Khirbet al-Mafjar since

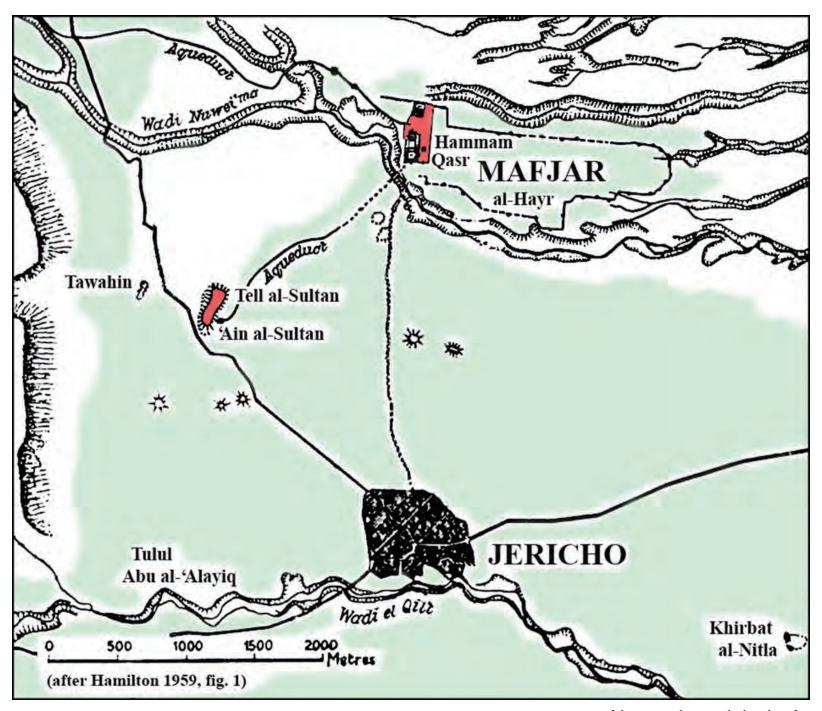


Figure 1. Map of the region, showing Khirbet el-Mafjar



Figure 2. General view of Hisham's Palace showing the surrounding landscape

the first discovery in 1894. The site is attributed to Caliph Hisham ibn 'Abd al-Malik (724–743 AD /105–125 H) on the basis of some epigraphic materials (fig. 3), but some believe that his heir al-Walid II built the palace before his brief rule, 743–744 AD (Hamilton 1969: 61–66, 1993: 922–29). The palatial complex was not the official residence of the Caliph but was used as a winter resort (fig. 4). The spectacular palace continued to be occupied in later periods, but the audience hall (fig. 5) and bath were probably destroyed in a severe earthquake of 748/749 AD /131 H (for dating evidence, see Baramki 1944; Whitcomb 1988) (fig. 6).

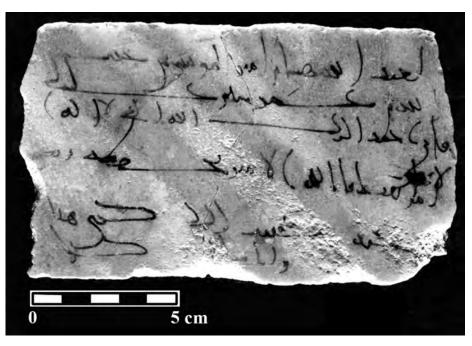


Figure 3. Hisham's inscription

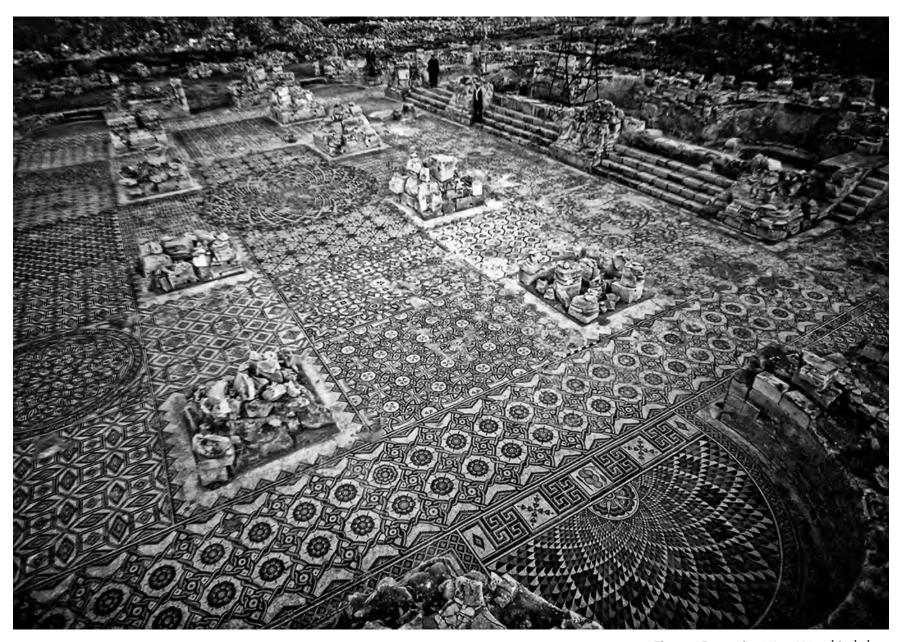


Figure 5. Excavation 1935–1936 archival photo



Figure 4. Standing Caliph (photo by G. Azar)



Figure 6. Umayyad painted jar (photo by G. Azar)



History of Excavations

The excavations at Khirbet el-Mafjar were carried out by the Palestinian Department of Antiquities between 1935 and 1948 by D. C. Baramki (fig. 7) with the assistance of R. W. Hamilton (Baramki 1936: 132–38; 1937: 157–68; 1939: 51–53; 1944: 153–59; 1953; Hamilton, 1959, 1988, 1993). The excavations uncovered a significant part of the palace complex. Further excavations were carried out in the northern area beyond the palace complex in the 1950s and 1960s under A. Dajani; unfortunately, the results of these excavations were



Figure 7. Photo of Dimitri Baramki and workers (Courtesy of Constantine Baramki)

never published. During these same years a series of restorations were carried out in the palace under the Jordanian rule. During the Israeli occupation between 1967 and 1994 the site was left entirely abandoned.

Rehabilitation work was resumed directly after the transfer of authority to the Palestinian side in 1996. A project for the conservation of Hisham's Palace was carried out by the Department of Antiquities and Cultural Heritage in cooperation with the UNESCO, the Studium Biblicum Franciscanum and funded by the Government of Italy.

The Department of Antiquities undertook excavations immediately north of the bath in 2006 (Tāhā 2011). More recently, a program of excavations has started as a cooperation between the University of Chicago and the department from 2011 through 2014 (Tāhā 2011: Whitcomb and Tāhā 2013). The focus of this research was the northern area that was thought to be a caravanserai (fig. 8). The new excavations revealed a large enclosure with fine masonry of the Umayyad period and a walled settlement of the following Abbasid period. The Umayyad foundation seems to be an agricultural estate (day'a) contemporary with the palatial complex to the south.



Figure 8. View of the northern area, looking east and showing the Red Building (3), Abbasid house (5), Stables (7), and Mosque (8)

Opposite: Stucco relief (G. Azar)



Description of the Palace

The site is composed of a palace, an audience hall with a thermal bath, a mosque, and a monumental fountain within a perimeter wall (fig. 9) (Baramki 1947; Hamilton 1959; Creswell 1969: 545–77; Grabar, 1955: 228–35, 93–108). The three principal buildings were arranged along the west side of a common forecourt; there was a south gate entering from Jericho (Ariha), a north gate leading into the estate, and a fountain pavilion in its center. The first of these structures is the palace (*qasr*) built of ashlar masonry, cut from soft local limestone. This palace and other buildings were covered with both cut stone and brick vaulting, or with timber roofing covered with tiles. The floors were paved with flags of bituminous limestone (Nabi Musa stone), white mosaic, or lime cement.

The palace was a two-storied square building, with round towers at the corners. It was planned around a central courtyard that was enclosed by four arcaded galleries (Baramki 1953: 9–58; Hamilton 1959: 9–39). The entrance to the palace (fig. 10) was through a vaulted passage, lined with benches on both sides. The arrangement of the rooms



Figure 9. Reconstruction of the palace entrance

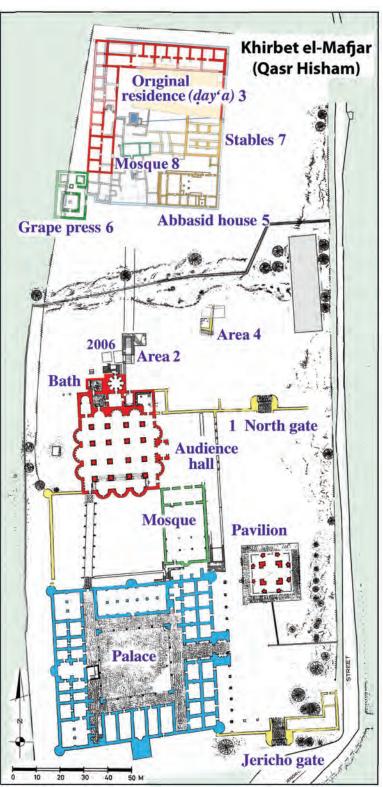


Figure 10. Qasr Hisham, general plan

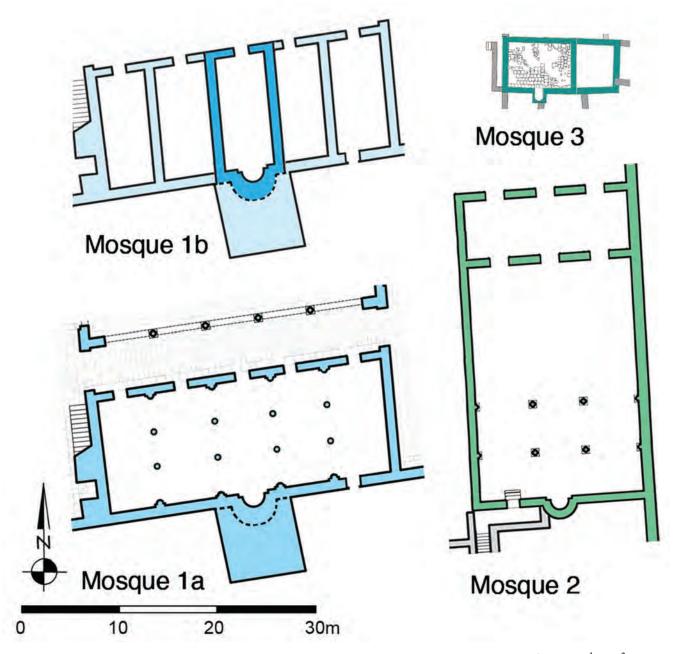


Figure 11. Plans of mosques

suggests that the ground floor was used for guests, servants, and storage. On the southern side a small mosque with a prayer niche (*mihrab*) was found. The original mosque (1a) probably comprised this room with two narrow rooms on either side, all connected as a large, broad mosque. Later, when the new mosque (2) was built outside, north of the palace, this became a small chapel (*bayt al-salah*) and storage rooms (1b; fig. 11). Stairs on the two opposite corners of the courtyard gave access to rooms of the second story, presumed to be for living quarters. Some of the second story rooms on the eastern side must have been decorated with wall paintings, for many fragments of floral and figural designs on plaster were recovered from the fallen ruins (fig. 12). Within the western gallery of the courtyard was a



Figure 12. Fresco

stairway leading down to an underground vaulted room, the *sirdab* (fig. 13). This was a cool room with benches around a mosaic paved antechamber and then a pool with benches and a waterspout (Baramki 1936: 132–38; Hamilton 1959: 31–33).

The congregational mosque (fig. 11, mosque 2) was planned as a rectangular structure attached to the northern wall of the palace (Hamilton 1959: 106–09). The roof was supported by two rows of three arches; each arch rested on columns. A prayer niche (*mihrab*) with two columns was placed in the south wall. The mosque was very poorly preserved and the present structure was reconstructed in the 1960s.



Figure 13. Sirdab

Description of the Audience Hall and Bath

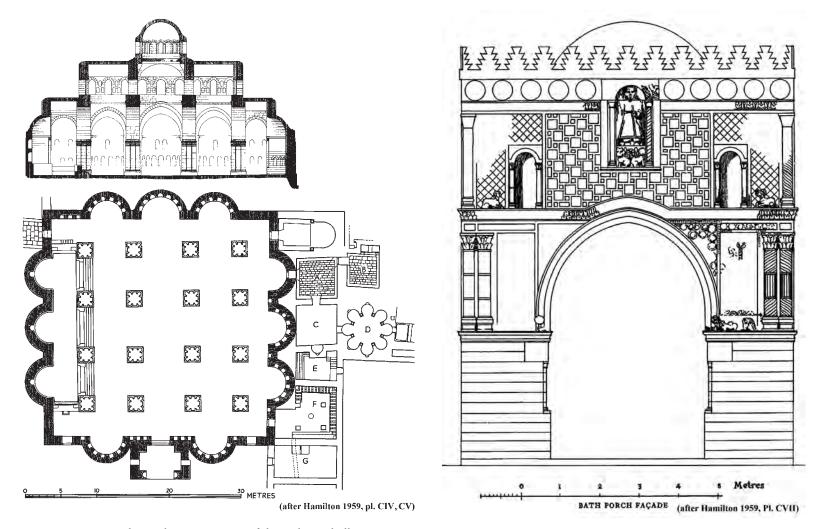


Figure 14. Plan and reconstruction of the audience hall

Figure 15. Reconstruction of the east entrance of the audience hall

The large audience (reception) hall is a unique building in early Islamic architecture; it is located north of the palace and mosque. A formal entrance on the east passed through a domed porch into the enormous domed reception hall covered with multiple domes and eleven apses or edicules along the walls (figs. 14, 15). The bath itself was a series of rooms attached to the exterior on the northern side; the plan is typical of the sequence of tepid and hot rooms found in many Byzantine and early Islamic baths. For Hamilton, the main hall was the *frigidarium*, though this is far larger than any contemporary bath hall (1959: 45–103: 1993: 923–24). The most unusual feature of the hall was the sets of three semicircular half-domed *exedra* on each side of the exterior walls. Beyond the bathing rooms were two furnaces, a vat, and piping to carry hot water or steam up pipes concealed in the walls.

The vaulting system was of brick and rested on sixteen massive stone piers, in four rows (Hamilton 1959: 67–74). The piers supported arches in each direction and were spaced in a way that two axial naves were defined intersecting at

the center. In the southern part of the bath, a 20 m long and 1.5 m deep swimming pool was added at a later stage. The style of the western central exedra, facing the entrance to the bath, has been reconstructed with the original horseshoe shaped niches. The main entrance to the bath from the east side was through a high open archway, covered by a hemispherical dome resting on cylindrical drum, some of the fourteen niches contained plaster statues (fig. 16). Both the interior and exterior of the porch were covered with stucco decorations.

Attached to the northwest corner of the audience hall was a room called the diwan (Hamilton 1959: 63-66), perhaps a small guest room or reception room for the caliph (fig. 17). There was an apsidal platform at the northernmost end of the chamber, raised 50 cm above the main floor level and covered by a barrel vault and a semidome. The room had wall benches on both sides under a dome, as reconstructed by Hamilton (1959: figs. 25, 26). The walls were covered with carved plaster panels (fig. 18) and columns and the floor with exceptional mosaics, as described below.



Figure 16. Statue of a female

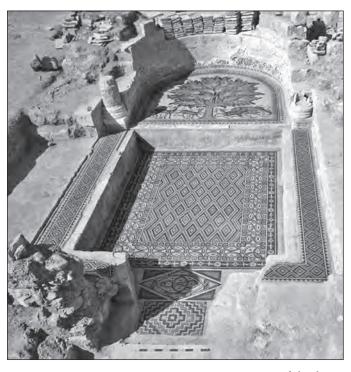


Figure 17. Excavation of the diwan



Figure 18. Wall panel of stucco in the diwan

20

The Pavilion and Water Supply

In the forecourt of the palace was a pavilion covering a pool and fountain (described as a shaderwan by Baramki, 1953: 39–41; Hamilton 1959: 110–11). The pavilion was built on four massive piers, probably with a high room and dome at the top (fig. 19). Around the piers was an octagon of smaller piers, probably supporting a balcony on arches. The pavilion marks the center of a forecourt or gardens; a gate on the south leads toward Jericho and a north gate, discovered in 2011, leads toward the *day'a* or northern estate.

A water channel crossed the gardens feeding the Pavilion fountain, another led across the palace, another through the audience hall, and yet a fourth supplied the bath on the north. There was a central distribution point on the western side; the water came through an open channel from the double spring Ain Deuk and Ain Nueima northwest of Mount Quruntul, eight Kilometers to the west (Hamilton 1993: 922). The channel crossed the wadi at two different points over arched bridges and led to a large reservoir and several mills at some distance west of the palace.

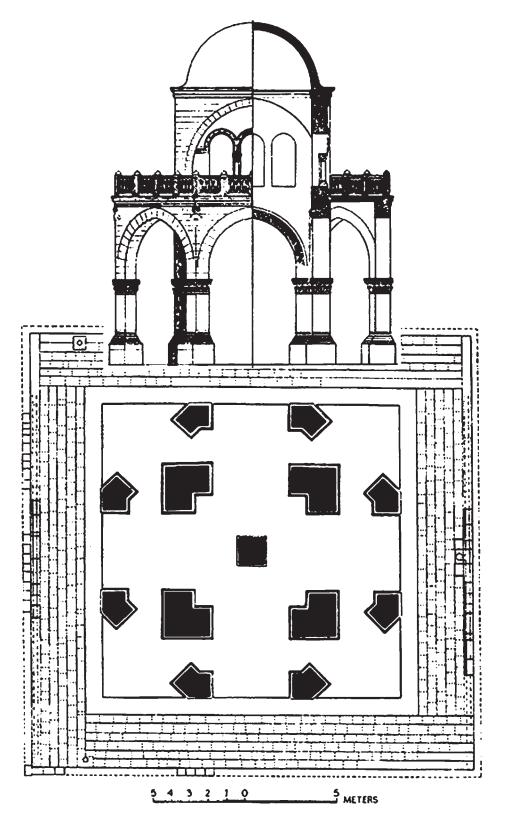


Figure 19. Plan and reconstruction of the Pavilion

Art Historical Influences

The architecture and the decoration of the palace was influenced by both Byzantine and Sasanian traditions. The stylistic tradition of the main entrances of both the palace and the audience hall were inspired by the iwan facades in Persia and Iraq (Hamilton 1993: 924; Taragan 1997). For the first time in Palestine, carved stucco was used as surface ornament and material for balustrades, windows, and facades. In both painting and stucco ornament Sasanian motifs occur, including human, animal, floral, and geometrical designs (Baer 1974: 237-40; Rosen-Ayalon 1984). On the other hand, the dominant ornamentation motif for capitals was the acanthus leaf, adapted from the classical tradition, in addition to a wide range of floral motifs, such as the palmette, vine, and rosette. A stone cupola was found on the floor of the diwan and seems to be a model for Sasanian inspired architecture at Mafjar; this is reconstructed in the Qasr Hisham museum (fig. 20).

Plaster sculptures were used extensively for wall surfaces, columns, capitals, and ceilings which included both animal and human forms (Hamilton 1945: 1–19, 1950: 100–19). The finest mural decoration of geometric and floral patterns was found in the *diwan* and the audience hall porch area. Carved plaster statues were found at the entrance passages of the palace and in the baths porch, some of these were life-size human figures of males and females, other were of animals kneeling below the statute niches (Hamilton 1950: 100–19, 1993: 926, 928). One statue stood alone fully dressed, with a sword in his hand; this pose is called the "standing caliph" and is found on the coins of 'Abd al-Malik, Hisham's father. This



Figure 20. Cupola found on the floor of the diwan

statue probably represented the Caliph Hisham and is similar to the statue on his palace of Qasr al-Hayr al-Gharbi, near Damascus. A niche from the palace façade is reconstructed in the Qasr Hisham museum.

Description of Mosaics

Colored mosaic pavements are known in Palestine from the late Hellenistic period onwards. Mosaics consist of tesserae, small cubes cut from stone or glass, made in pattern and set in mortar. The earliest examples of mosaics found in the Jericho region date to the Hellenistic and early Roman periods (Negev and Gibson 2011: 347–49). During the Byzantine period the most elaborate examples were found in public buildings as an integral part of the artistic heritage of the Graeco-Roman period (Avi-Yonah 1934). The art of making mosaics continued during the early Islamic period and flourished during the Umayyad period. Wall mosaics are also known in Palestine, sometimes made of glass tesserae. Important examples of this art may be seen on the Dome of the Rock in Jerusalem and the Great mosque in Damascus. The tradition of paving the floors of houses with white mosaic continued into the Abbasid and Fatimid periods. Beautiful examples of early Islamic mosaics have been discovered at Khirbet el-Minya and Ramla, in additon to Khirbet el-Mafjar.

The mosaic floors at Hisham's Palace present a distinctive feature of the early Islamic art (Baramki 1936, 1937, 1939, 1944; Hamilton 1959: 327–46). Colorful mosaic floors were uncovered in the audience hall, the *diwan*, and the *sirdab* of the palace. The delicacy of execution, choice of colors, and design suggested to Baramki that master mosaicists were imported from Constantinople (Baramki 1953: 45, 62–63), but there is no literary evidence to support this suggestion and a strong local craftsmanship may be posited.

In general the mosaics were made of natural stone, in red, brown, gray, and bluish tints as well as two distinct shades of white (Hamilton 1959: 339). The designs were generally abstract in character and consist mostly of geometric and floral patterns, a style common to the early Islamic art.

Mosaics of the Palace

Baramki first reported the discovery of fragments of white mosaic in the court and the west cloister of the palace (Baramki 1937: pl. 65: 2–3). Soon other mosaic fragments were found in the room of the east cloister of the palace showing a floral design and a bird in a concentric circle (Baramki 1938: 52, pl. 35: 1). Baramki pointed out that these large quantities of mosaic pavements indicate that they had fallen from the floors of upper rooms (Baramki 1942: 158, pl. 34: 6, 1953: 53, pl. 42: 6). One of the more complete fragments is also from the south portico, and now in the Palestine Archaeological Museum (Rockefeller Museum), shows a pattern of interlacings and flowers not unlike the border of the floor carpet in the *diwan* (A5) or the runner 28 in the audience hall (see below). Baramki observed that most of the recovered mosaic fragments came from the southeast rooms of the palace and that fewer tesserae were found in the north portico (1953: 54).

Mosaics of the Audience Hall

The whole area of the audience hall was paved with colored mosaics, interrupted only by the pier bases and pool. Measuring about 30 \times 30 m, this is reputed to be the largest surviving mosaic from the ancient world. The floor con-

sists of thirty-eight different carpets, dividing the hall into circular and rectangular spaces. The disposition has been assumed to reflect the architectural superstructure, with circular carpets under domes, especially the majestic circular carpet under the central dome (Hamilton 1988: 28, fig. 9).

This hall was interpreted by Hamilton as a *frigidarium* after the Roman prototype (Hamilton 1959: 48–52). In his later work Hamilton reinterpreted the function of this room as an auditorium, *majlis*, or as a "a place for entertainment" (1988: 22–32). In fact, the function of the hall was probably multi-purpose, being used as an audience or reception area and as an assembly room to host social events, including musical performance.

Hamilton presents seven types of design patterns with a discussion of characteristics of these mosaics compared to early examples of this art, as then known in the Middle East (1959: 329). His enumeration of the panels (1959: fig. 258) is simply by rows, moving across the hall from west to east. A broader understanding of the composition follows from an examination of the locations with north oriented to the top of the plan, using a similar typology.

A. Circular medallions may begin with the central panel, presumed to lie under the high dome, 1 (formerly Hamilton's #17). This triumph of mosaic art, a swirling basket pattern is framed with an undulating ribbon and plant symbol. There are four other circular panels, 2 (>27), 3 (> 11), 4 (>7), and 5 (>23), each place within a set of four columns. It would be tempting to see subsidiary domes above each of these panels. These are described as "concentric interlacings," the northern circles with very dense designs, and the southern less detailed, especially 5.

B. There are two rectangular carpets of special significance as indicated by their borders, 6 (>25) and 7 (>15). One enters the hall across a small panel with an ornamented lozenge (as is also present entering the *diwan*). This apparent symbol of welcome is embedded in this panel 6. The second bordered carpet 7 spreads between the circular panels 4 and 5 and suggests a special significance for the south side of the hall (see below). The remaining rectangular carpets are described as "interlacings on rectangular grid." These cluster in front of apse V as panels 8 (>9), 9 (>5), and in the southwest corner 10 (>4) giving an additional emphasis to this southwestern sector of the hall.

C. The organizational importance of the circular medallions is clear from the four rectangular panels around each. As Hamilton observed, opposed sides repeat the same patterns (1959: 327). Beginning with the great central medallion (1), the panels on the east and west (11, 12) have the same floral motif, and the north and south panels (13, 14) have the same diaper pattern. These latter two panels have ornamented lozenges, similar to those of the "welcoming" panels discussed above (panel 15 also contains a special symbol in its center). This pairing of panels holds true for the other circular medallions: circle 2 has similar panels 15 = 16 and 17 = 18; circle 3 has panels 19 = 20 and 21 = 22. This organizing principle seems to break down around the south circles (4, 5), due to the long panel 7 and large pool. These panels are 23, 24, and 25. There remains one extraordinary panel 26, situated between four columns on the north side of the hall. This has been described as "overlapping circles" but may be better seen as a floral elaboration of the diaper pattern. Finally, north of 26 is a diaper panel with floral frames, 27.

It is worth noting that all of these peripheral panels are the type called "rectilinear diapers or reticulation." Though there are numerous variations, these relatively simple geometric exercises seem the basic and most numerous type of design in the hall. These diaper designs appear on the south edge of the hall and disappear beneath the steps of the long pool. This feature of the mosaics and other ornamental elements strongly indicate that the pool was a secondary feature, added to the original architecture of the audience hall.

D. Around the periphery of the hall, there are three carpet "runners," long panels with interlaced designs. The east and west panels 28 and 30 are the same, opposing patterns. The north runner 29 is more elaborate and has a border on both sides, whereas the other runners have only an external border that goes around the apses.

E. The exterior wall of the audience hall features apses or *exedra*, three on each side except for the entrance porch on the east. There are eight apses with mosaic designs and it seems best to keep Hamilton's Roman numeration as he counts the three under the pool on the south. Apse V is the most famous, often discussed for the ethrog, sprout, and knife motif, a symbol of fertility common to contemporary churches and synagogues, as Bisheh has shown (2000). Behind this is a fine basket design similar to that of the central medallion 1. Together these mosaics emphasize the axial importance of the passage from entrance to apse V.

The other apses present an apparently random range of designs: apses IV and IX are fields of floral elements, "sprig patterns"; most of the remaining apses contain geometric patterns of banded colors, called "rainbow matting;" and finally apse XI in the southeast corner has an interlacing pattern similar to those of circles 4 and 5, also on the south.

The thirty-eight carpets or panels within the audience hall might easily be analyzed further. Building upon Hamilton's initial observations, this organization of the panels indicates that the selection of patterns is not random. Placement of types reflects the architecture of the building and no doubt the activities that once took place upon them, would that these might be reconstructed.

Mosaics of the Diwan

In the diwan, also called the bahw, the mosaic on the floor and apsidal platform (dais) were recovered in very good state of preservation. A preliminary description of the mosaics was provided by Hamilton (1959: 337–39), to which may be added the following observations. One entered on a rectangle with diamonds of rainbow matting; this is similar to the central northern apse VIII in the audience hall and may have held a special significance. Next is a rectangular panel with an ornamented lozenge similar to the entry of the audience hall.

The mosaic of the floor is a carpet (tassels are found on the corners), with a double border; a narrow red edging and an interlacing pattern within. The center of the carpet pattern of rainbow diamonds or perhaps lozenges. The room is flanked on the east and west sides and entrance with low benches with covered with similar diamond mosaic strips. The raised apsidal platform holds a mosaic that is one of the masterpieces of mosaic art (first described by Hamilton 1950; see Behrens-Abouseif 1997). Knotted fringes on all edges suggest that this mosaic may reproduce a real carpet. The carpet depicts a Tree of Life, in subtly blended colors of the leaves and fruit. Beneath the tree on the left side stand two gazelles peacefully grazing, a common motif found in numerous mosaics and frescoes in Palestine and Egypt. On the right side, a lion ravages a fleeing gazelle, again a common scene found on the earlier, recently discovered mosaic at Lud and a contemporary Umayyad mosaic from the *qasr* at Qastal, to name but two examples. It is the composition and technical perfection of this mosaic, its range of coloring, and the intensity of scene make this carpet the chief wonder of the arts at Qasr Hisham (Khirbet el-Mafjar).

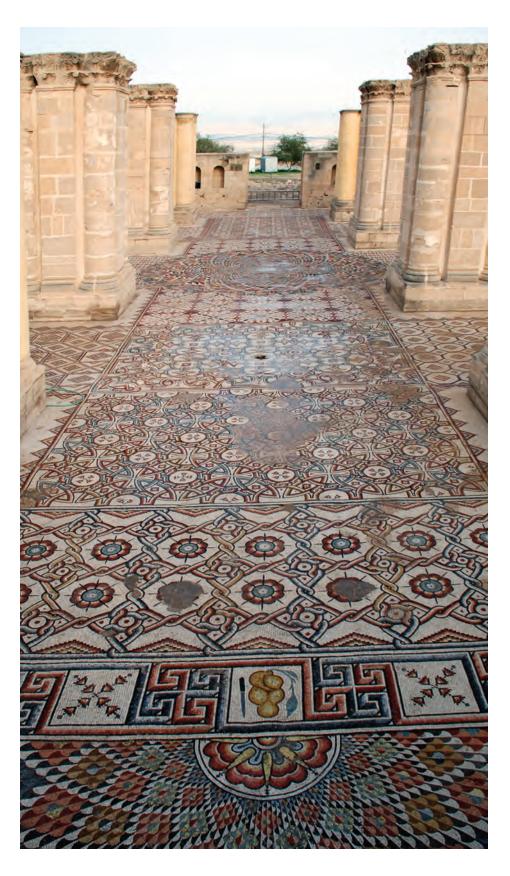
The Subterranean Room (Sirdab)

The underground bath (*sirdab*) is located on the western edge of the open courtyard of the palace. This was excavated and described by Baramki (1938: 164, pls. 61: 3 and 62). The subterranean court had a carpet with a very simple diaper pattern analogous to those in the audience hall type C). In the northeast corner was a rainbow diamond pattern, reinforcing the importance of this symbol (see above). Both of these mosaics have now been removed. The floor of the *sirdab* holds a mosaic carpet with a diamond pattern similar to that in the *diwan* but with only a simple line for a border (the tesserae number 64 in a 10 x 10 cm area). Likewise side benches have a marble edge and mosaics of simple rectangles (made with smaller tesserae (156 in a 10 x 10 cm area). and further mosaics on the side benches. The chamber ends with high-backed seats arranged like a Classical *tricinium*. Behind this was a pool and high pipe, apparently for a shower of water (insulating brick may have been covered with water-proof plaster. Behind each of the side benches is a curious *arcolosium*, more befitting a tomb than an underground bath. Each of these spaces has a mosaic carpet with a repeating rainbow pattern and tasseled edges.

Other Areas

The mosaic paving was clearly an option for flooring of special areas with high traffic flow. Mosaics composed of large white tesserae were found in the latrine area, several open courtyards, and the grape press. Many other areas may have had such elegant but simple paving that has been subsequently removed.

Finally one should mention that glass mosaics are reported from several areas. These were presumably from wall decorations. One of the clearest mentions is that of Hamilton, who states "Many fragments of glass mosaics were also found [in the octagonal room of the bath, room D], having fallen from the dome or from the cupolas of these niches. They were too small to be reconstructed but showed leafy designs in dark colors against a gold ground" (1959: 59). During the Jericho Mafjar Project excavations in 2012, glass tesserae with gold and other colors were found in the disturbed surface soil (C), perhaps from older backdirt from these earlier excavations.



Conclusions

The mosaic floors at Hisham's Palace present a distinctive feature of early Islamic art. Since its initial publication, many more mosaics have been discovered at other sites that parallel but never duplicate the embellishment of Hisham's Palace. The intricate pavements that covered in the vast audience hall, the diwan and the sirdab, each carpeted with bright colored patterns, may be considered unique and at the same time contribute to our appreciation of this Umayyad monument in the history of this art. The brilliant colors of the mosaic floors are woven into common motifs brought together in a new fashion; just as may be seen in the stucco, frescos, and especially the architecture itself. The mosaics presented in this volume were originally balanced with equally intricate wall coverings, colored stone, and stucco carvings in paneled surfaces, columns, and other architectural elements. Above these, there is evidence of painted frescos of further architecture and even figural scenes. There were even some indications of glass wall mosaics, though little precise documentation exists at present.

The mosaics of Hisham's Palace have designs that were generally abstract in character, mostly of geometric and floral patterns, but exhibit an experimentation and sense of beauty which is distinctive to the early Islamic art. The intent and meanings of this art remains to be studied and more deeply appreciated.

Appendix: Mosaic Technique

The state of conservation of the mosaics at Hisham's Palace was studied by conservator Mohamed Diab (2011). His analysis shows the unique construction used by the artists on this site. This technique differs from that used on other sites in the Jericho area, the mosaics of synagogue in Shahwan house, the Byzantine pavement at the monastery of Deir Abu Ghanam, the mosaic of the Deuk synagogue, as well as mosaics from many highland sites of Bethlehem and elsewhere. The main difference is found in the stability of the mosaic foundation, made of successive layers while other foundations are based on stone.

In the test made at the main audience hall, the mosaic and its foundation were made of different layers:

- 1. The mosaic layer is composed of tesserae in different colors (the number varies between 48-53 tesserae in a 10×10 cm area. The size of each tessera is 13-16 mm.
- 2. The second layer consists of highly compacted limestone mortar, primarily white lime of 1.8–2.2 cm in thickness. The tessera was embedded in this mortar.
- 3. The third layer consists of ashy mortar composed of ash, lime, and small pebbles, including small of fragments of colored mosaic debitage, 11–13 cm in thickness. This layer is highly compacted with a fine polished surface.
- 4. The fourth layer, 14–16 cm in thickness, consists of an ashy layer, mixed with small pebbles and sand.
- 5. The fifth layer occurs about 29–32 cm below the surface and consists of a layer of compacted earth, mixed with small- to medium-sized stone and pottery sherds.



Addendum 1: The Mosaics Workshop, Training, and Conservation Projects

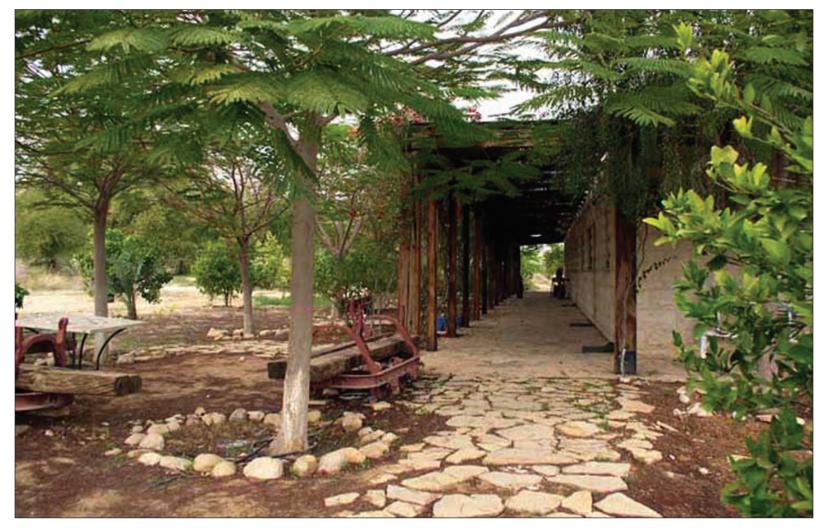


Figure 21. Mosaic laboratory

Following the successful restoration of the *sirdab* (QH 2000, Piccirillo 1999: 115–23), a project was launched in 1999 to build a workshop for the restoration of ancient mosaics inside the palace complex (fig. 21). The main task was restoration of the mosaics of the great hall with the aim of preserving and exhibiting these mosaics *in situ*, as well as concern with long term heritage preservation. This necessitated the training of specialized personnel, to create skilled local restorers and skilled craftsmen for producing copies and replicas of such beautiful mosaics (JW 2002). An initial two-year training course successfully produced six students in 2003, despite the difficult political situation in Palestine (Tāhā 2008; JW 2002). These craftsmen now teach children this ancient art (fig. 22).



Figure 22. A mosaic class

The workshop has carried out a series of field interventions in the past ten years; among these were restorations of the audience hall mosaic at Hisham's Palace, an inscription of Khirbet en-Nitla, mosaics of Notre Dame in Jerusalem, the Calvary mosaic in the Church of the Holy Sepulchre in Jerusalem, and the mosaics of the church of Saint George at Khirbet El-Mukkayyat in Jordan. Several additional sites in Palestine were restored in 2011, including the Byzantine mosaics at Deir Abu Ghannam in Jericho, Bir el-Hammam at Mount Gerzim in Nablus, the Nativity Crypt in the Manger square in Bethlehem, and the mosaic pavement uncovered in the mosque of Yanun in Nablus area, as well as the restoration of the synagogue mosaics of the Shahwan house and at Ain Deuk in Jericho.

Addendum 2: Shelter and Management Plans for Protection of the Mosaics

After the transfer of authorities to the Palestinian side in 1994, and the establishment of the Palestinian Department of Antiquities, the new department began to attend to its immediate tasks including protection of archeological sites. A joint project for the rehabilitation of Qasr Hisham was established between the Palestinian Department of Antiquities, UNESCO, the Studium Biblicum Franciscanum of Jerusalem with financial support from the Italian Government and UNESCO (QH 2000).

In 2002, Roberto Sabelli with a team from the University of Florence were commissioned by UNESCO to prepare a design of a protective shelter for the reception hall of the Great Bath. A symposium was held in Jericho in 2003 to assess the architectural design for the protection of the mosaics at Hisham's Palace and an action



Figure 23. Model of audience hall

plan concerning the stone conservation was carried out by the Department of Antiquities and Cultural Heritage. This was followed in 2005 with a new process for the design of the protective shelter of the mosaic, with architect Peter Zumthor (HP 2010) and Habash Engineering Studio. This included a model of the original reception hall, based on the architectural reconstruction of Hamilton, placed on the site (fig. 23). Currently the mosaic floor is covered with a layer of Geotextile and sand pending the acceptance of a suitable design and implementation of the much needed shelter. As noted above, presentation of these mosaics will make Khirbet el-Mafjar a prime destination for tourists and a pride of the Palestinian state.

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Order of Presentation of Mosaic Plates

Mosaic from the Palace Rooms

Photos of these fallen fragments are all published in Baramki's reports.

- 1. Mosaic fragments in the floor matrix fallen from the upper rooms into the West Cloister and Court (1937, pl. 45:2).
- 2. Large amounts of flooring fell from the upper floor into room VIIb, an exterior room in the southeast corner (pl. 35:1).
- 3. Fragments of mosaic also fell into the South Portico (1942, p. 158, pl. 34:6)
- 4. One of the more complete fragments also from the South Portico, and now in the Palestine Archaeological Museum (Rockefeller Museum), shows a pattern of interlacings and flowers indicating work contemporary with the Diwan and Audience Hall.

Mosaic of the Audience Hall

A. Circle 1 and Its Periphery

- 1. Panel 1, with 11, 12, 13, 14 (the great medallion with its flanking panels).
- 2. Panel 1.
- 3. Detail a of panel 1 (the central drain).
- 4. Detail b of panel 1 (ribbon and plants).
- 5. Detail c of panel 1 (plants).
- 6. Detail d of panel 1 (ribbon).
- 7. Panel 11 (bouquet of flowers).
- 8. Detail of panel 11.
- 9. Panel 12 (matching bouquet).
- 10. Detail of panel 12 (bouquet).
- 11. Panel 13 (north ornamented lozenge).
- 12. Detail of panel 13.
- 13. Panel 14 (south ornamented lozenge).

B. Circle 2 and Its Periphery

- 1. Panel 2 (the northeast medallion).
- 2. Detail a of panel 2.
- 3. Detail b of panel 2.
- 4. Detail c of panel 2.
- 5. Panel 15 (diaper pattern with knot inside).
- 6. Detail a of panel 15.
- 7. Detail b of panel 15.
- 8. Panel 16 (matching diaper pattern)

- 9. Detail of panel 16.
- 10. Panel 17.
- 11. Panel 18 (matching diaper pattern).
- 12. Detail of panel 18.

C. Circle 3 and Its Periphery

- 1. Panel 3 (the northwest medallion).
- 2. Detail a of panel 3.
- 3. Detail b of panel 3.
- 4. Detail c of panel 3.
- 5. Panel 19.
- 6. Detail of panel 19.
- 7. Panel 20.
- 8. Detail of panel 20.
- 9. Panel 21.
- 10. Panel 22.

D. Circle 4 and Its Periphery

- 1. Panel 4 (the southwest medallion).
- 2. Panel 10.
- 3. Panel 23.

E. Circle 5 and Its Periphery

- 1. Panel 5 (the southeast medallion).
- 2. Detail a of panel 5.
- 3. Detail b of panel 5.
- 4. Panel 24.
- 5. Detail of panel 24.
- 6. Panel 25.

F. East Apses X and XI

- 1. Apse X (with runner 28 and panel 16).
- 2. Apse X.
- 3. Apse XI.
- 4. Detail a of apse XI.
- 5. Detail b of apse XI.

G. East Carpet 6

- 1. Panel 6 (the entrance carpet).
- 2. Detail a of panel 6.
- 3. Detail b of panel 6.
- 4. Detail c of panel 6.
- 5. Detail d of panel 6.

H. East Runner 28

- 1. Entry and runner 28.
- 2. Detail of runner 28.
- 3. Entry lozenge (the welcome symbol).
- 4. Runner 28 (from SE corner).
- 5. Runner 28 (with damage in NE corner).

J. North Apses VII, VIII, IX

- 1. Apse VII.
- 2. Apse VIII, with runner 29.
- 3. Detail a of apse VIII.
- 4. Apse IX, with runner 29.
- 5. Apse IX.

K. North Carpets 26 and 27

- 1. Panel 26 (the garden).
- 2. Detail a of panel 26.
- 3. Detail b of panel 26.
- 4. Detail c of panel 26.
- 5. Panel 27.
- 6. Detail of panel 27.

L. North Runner 29

- 1. Runner 29, with apse VIII (= J2).
- 2. Runner 29, from NE corner.

M. South Carpet 7

1. Panel 7.

N. West Apses IV, V, VI

- 1. Apse IV, with runner 30.
- 2. Apse IV.
- 3. Apse V, with runner 30 and panel 9.
- 4. Apse V.
- 5. Detail a of apse V.
- 6. Detail b of apse V.
- 7. Apse VI, with runner 30 and panel 19.
- 8. Apse VI.

P. West Carpets 8 and 9

- 1. Panel 8.
- 2. Detail a of panel 8.
- 3. Detail b of panel 8.
- 4. Detail c of panel 8.
- 5. Panel 9.

O. West Runner 30

- 1. Runner 30, from NE corner.
- 2. Runner 30, with apse V.

Mosaic of the Diwan

A. Diwan Entry, Carpet and Benches

- 1. Diwan carpet, with entry and benches.
- 2. Entry panel, with diamond pattern.
- 3. Entry lozenge, welcoming panel.
- 4. Detail of carpet border.
- 5. Detail of edging, with interlacing pattern.
- 6. Detail of diamond pattern in carpet.
- 7. Detail of bench pattern.

B. Diwan Raised Apse, with Tree of Life

- 1. Tree of Life carpet.
- 2. Tree of Life carpet.
- 3. Tree of Life at an angle.
- 4. Gazelles on the left side.
- 5. Lion attacking gazelle on right side.
- 6. Leaves and fruit of the tree.
- 7. Tassels on the edge.

Mosaic of the Sirdab

A. Panels in the Sunken Court, from Baramki 1936, pl. 86: 1-2

- Panel of rainbow matting in diamond pattern, a "rhombus" in northeast corner according to Baramki
- 2. Panel with simple diaper pattern.

(1936, 136; 1953, pl. 26: 2).

B. Panel on Floor of Sirdab

- 1. *Sirdab* looking west, showing brick wall.
- 2. Detail of sirdab floor.
- 3. Carpet in arcosolium a.
- 4. Detail of carpet in arcosolium a.
- 5. Carpet in arcosolium b.

Mosaic of Other Areas

- A. Room F east of the bath. The large room of the latrine or *unctorium* had white mosaic around the fountain in the center (Baramki 1953, pl. 76).
- B. Area 6 in the northern area. The grape press of the Umayyad period was entirely covered with white mosaic pavement.
- C. Glass mosaic fragments from surface soil of Area 4, northeast of the bath.

Mosaic Fragments from the Palace Rooms

Photos of these fallen fragments are all published in Baramki's reports.



Figure 1. Mosaics from Court and West Cloister, north extension





Figure 3. Mosaic floor from the South Portico

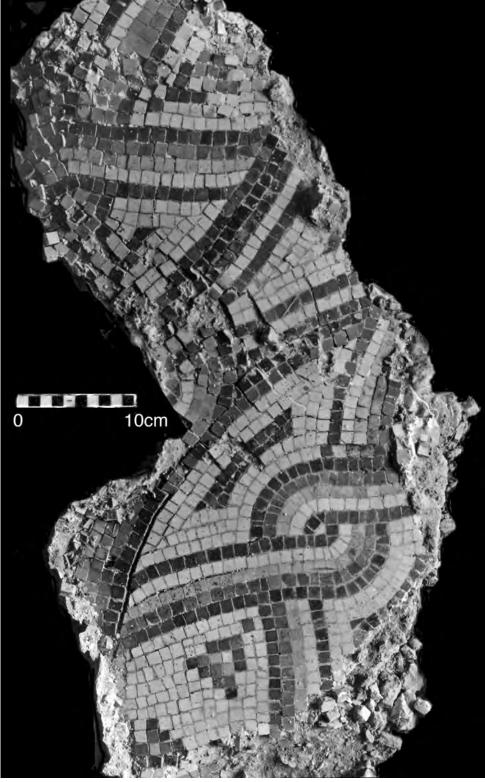
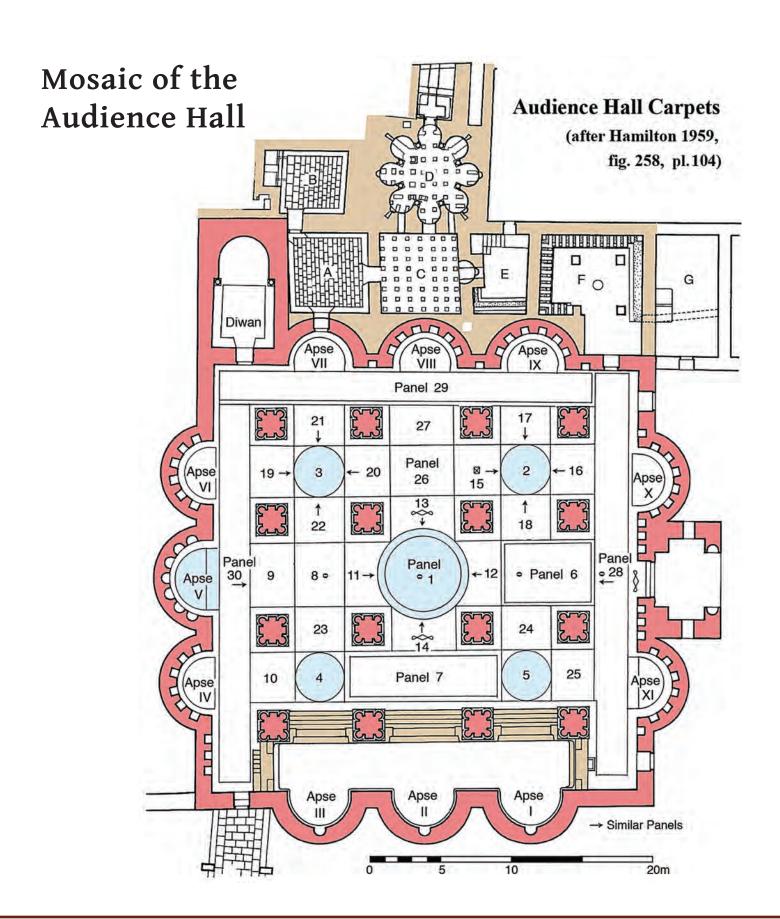
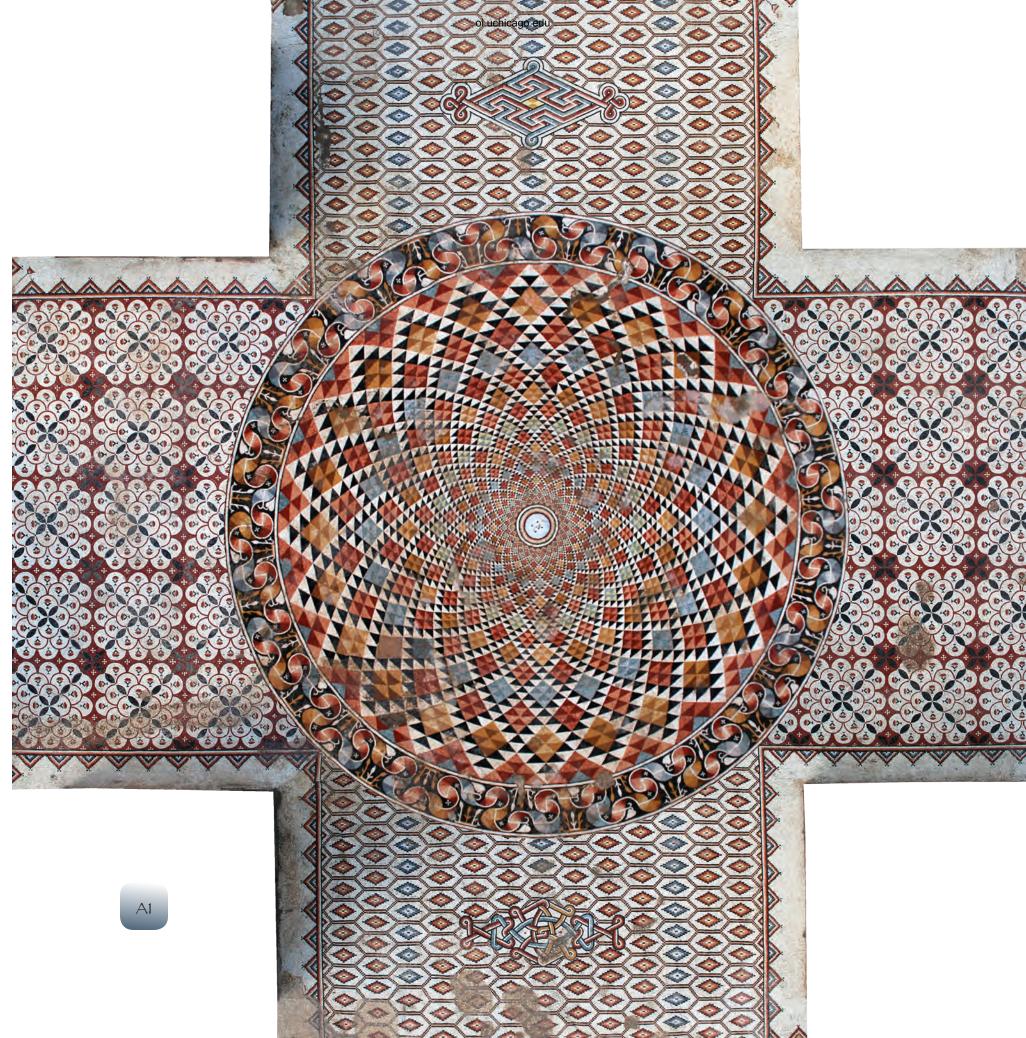
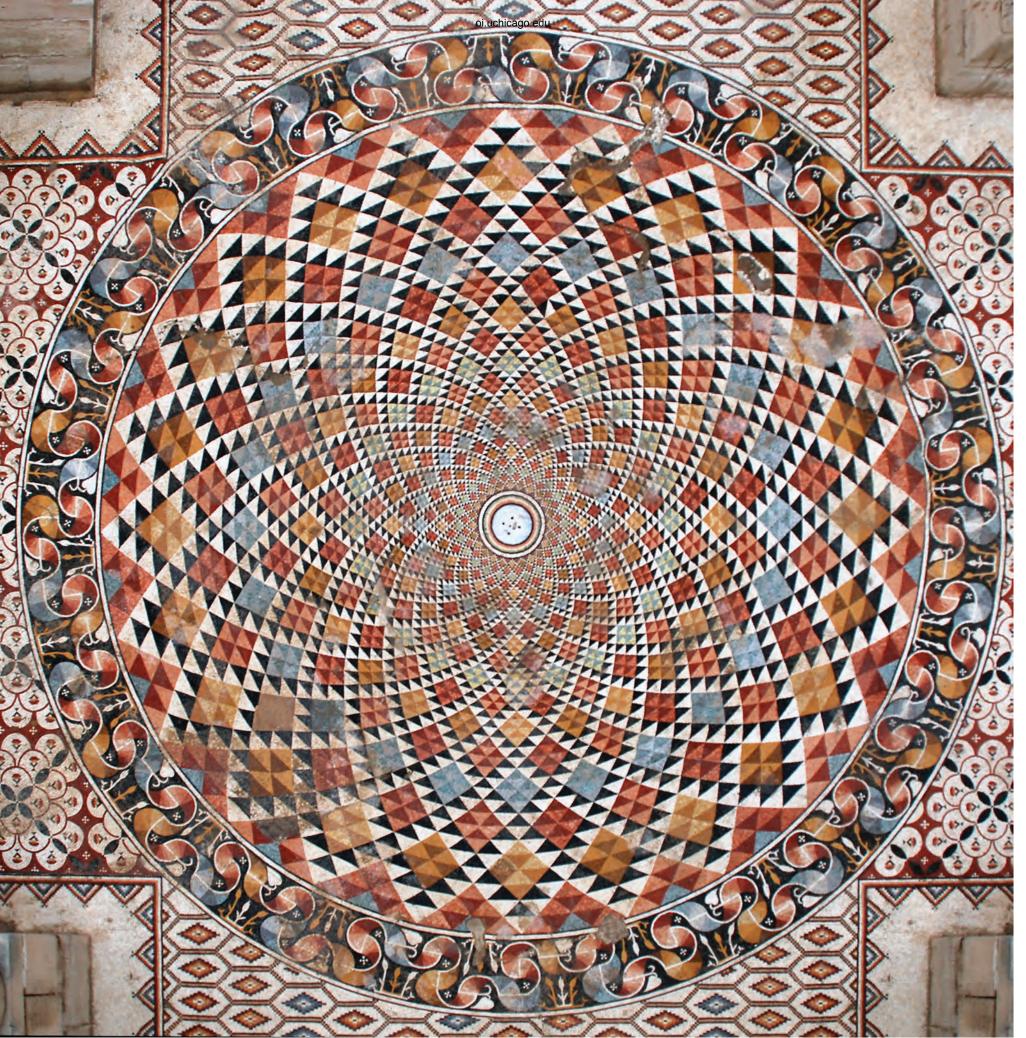


Figure 4. South Portico fragment, new













A4







A6

< A2





< A7

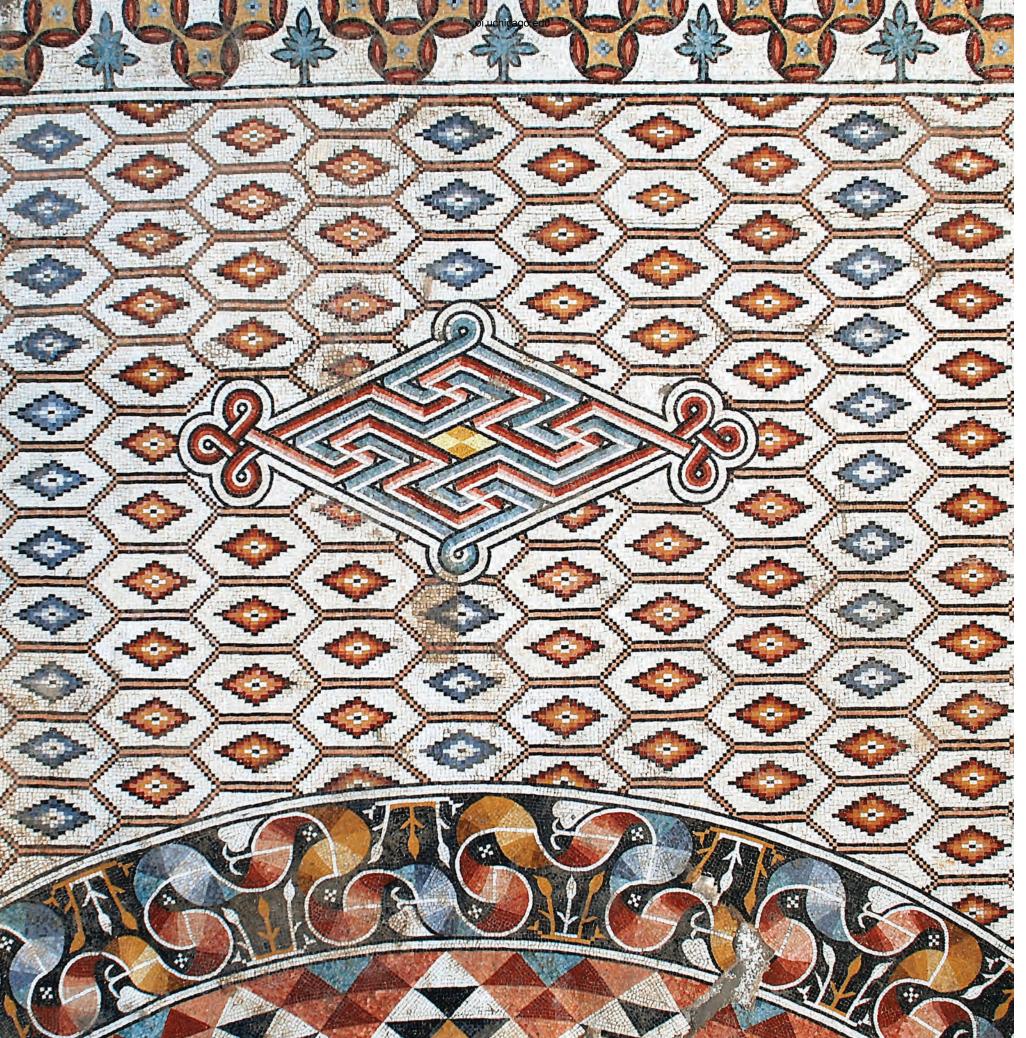
A8





A10



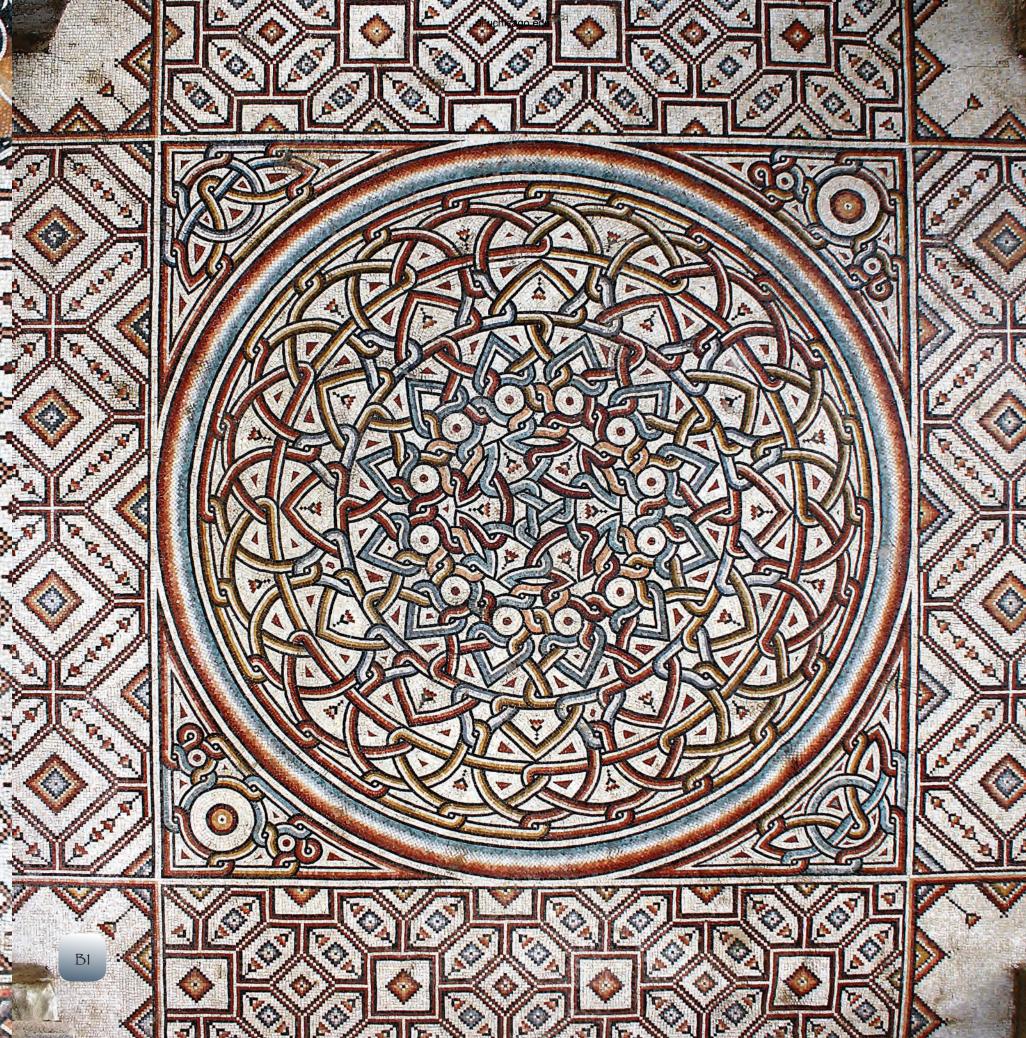


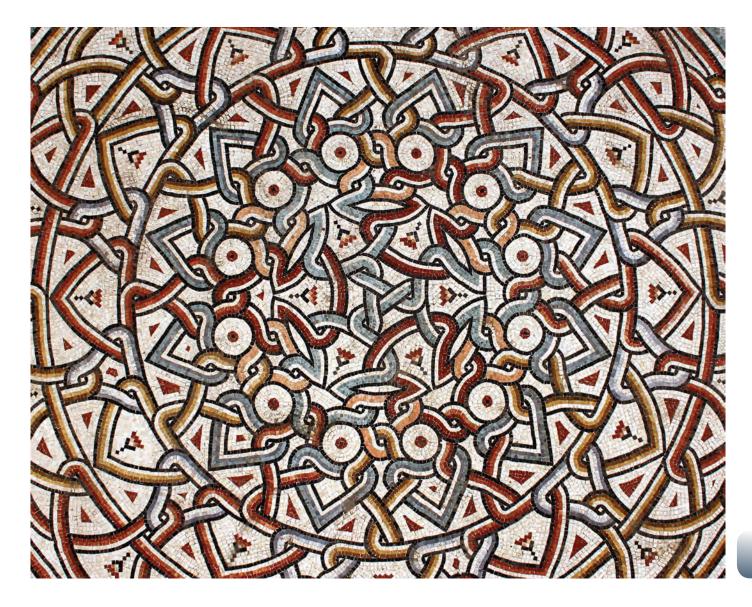


A12

< A11







B2





B4





36



B7











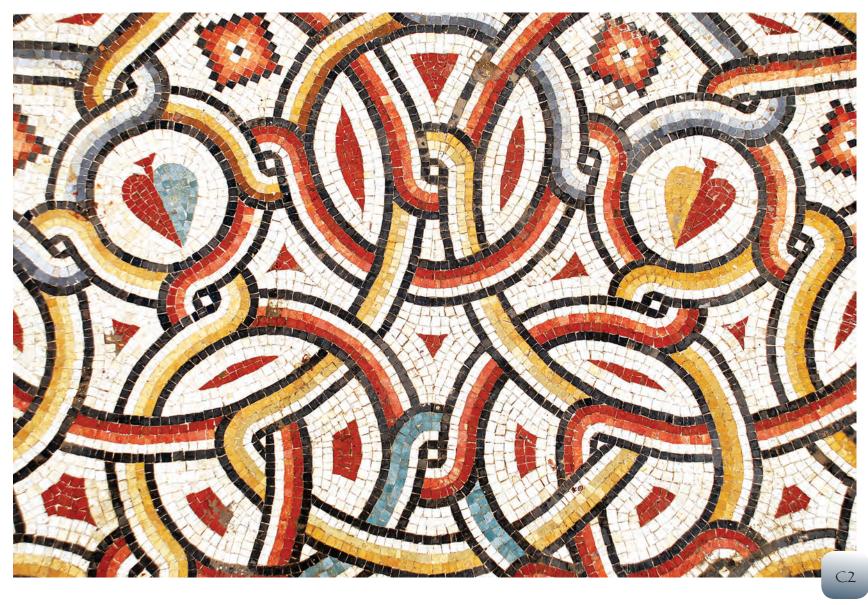




B12

< B11













C6







C8









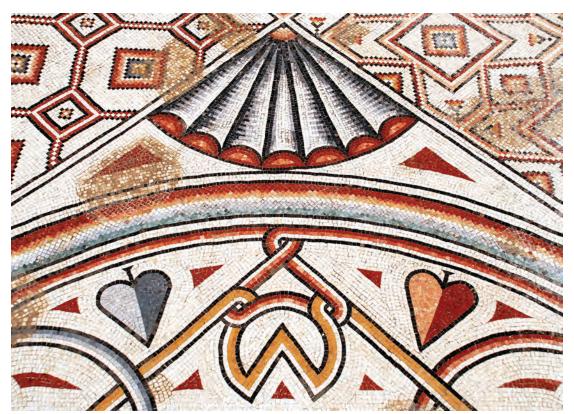






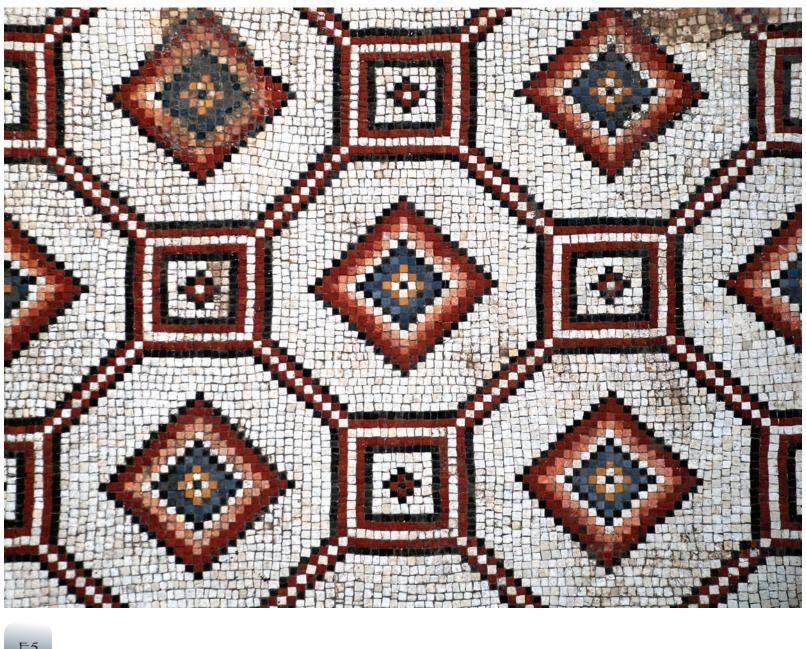


E2









E5





















G3



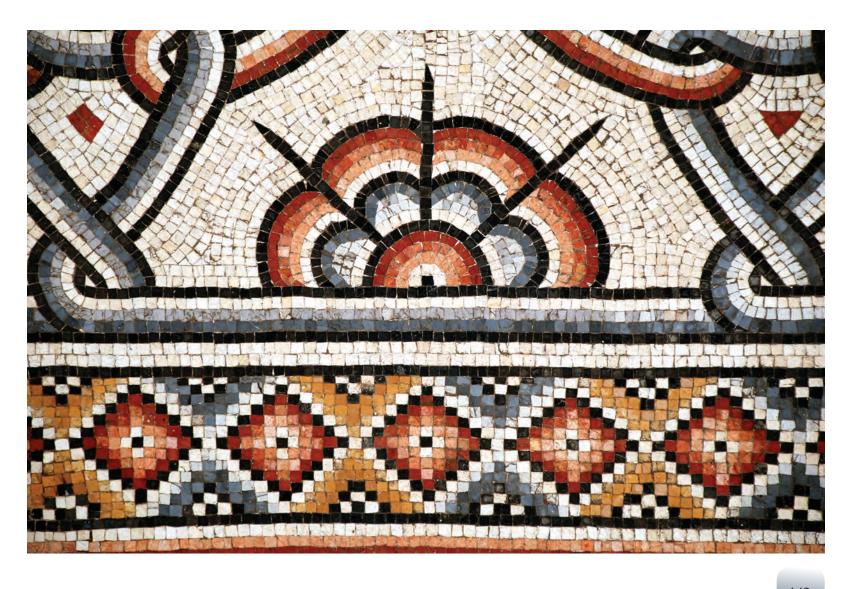




G5







H2

< H1



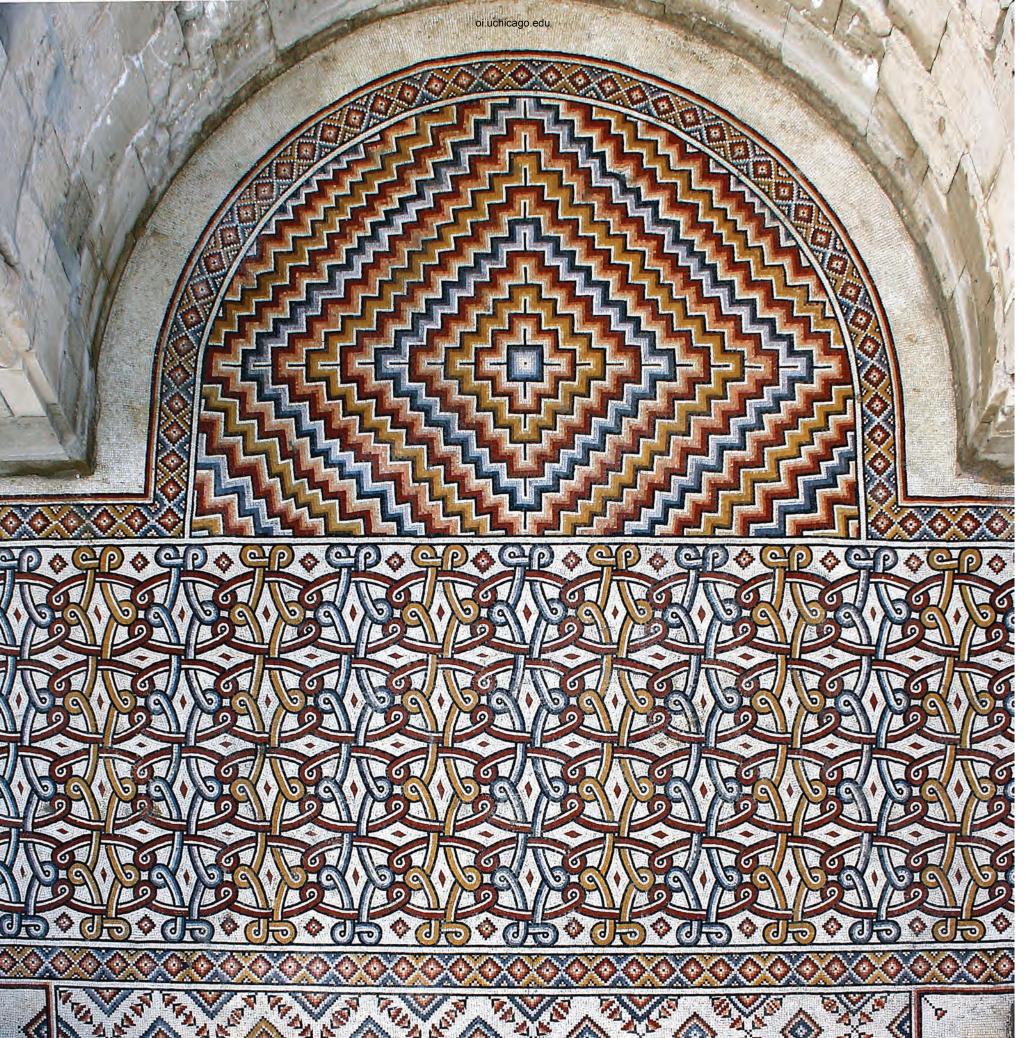
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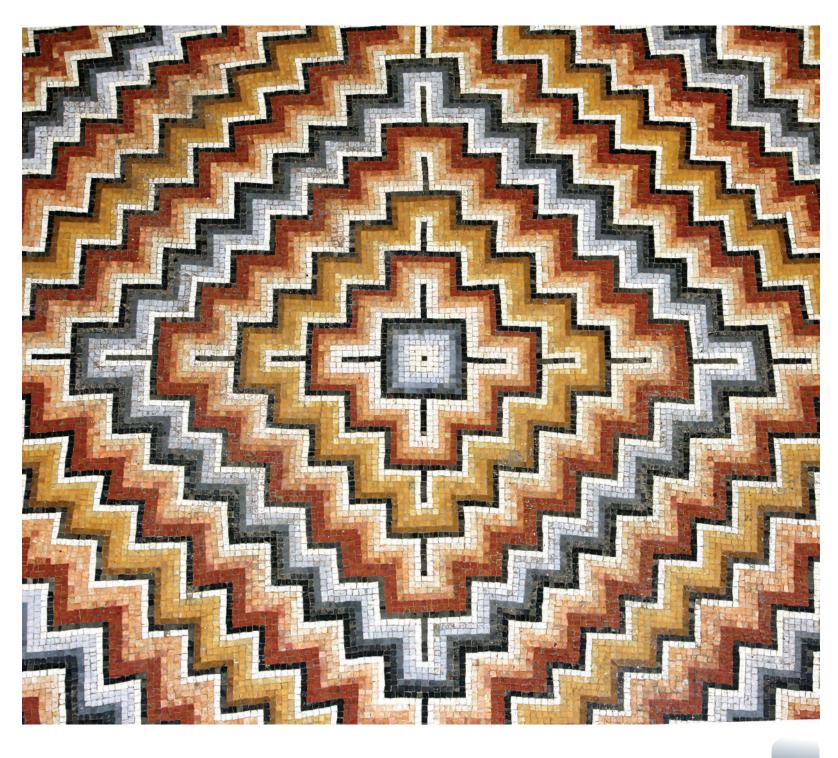












< J2

J²









K2



K3



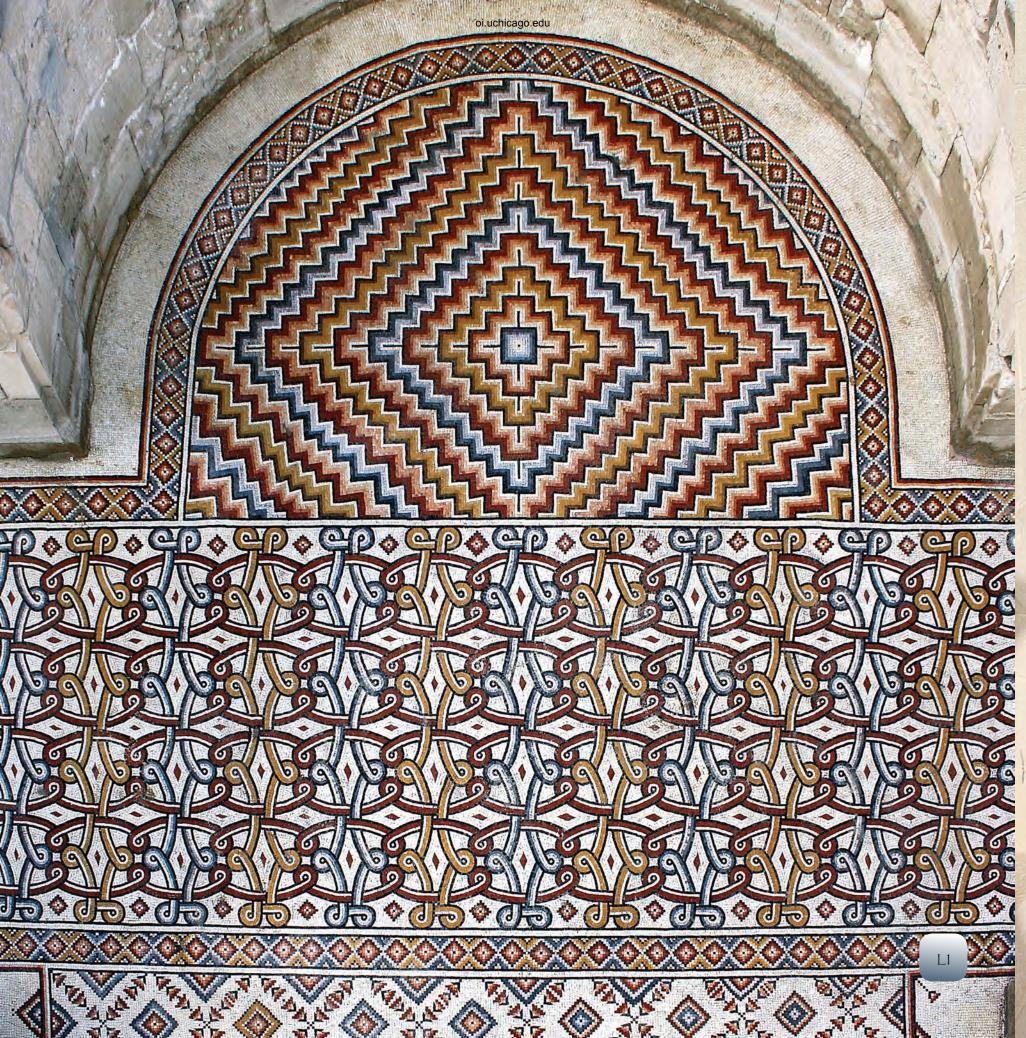
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K4





< K5







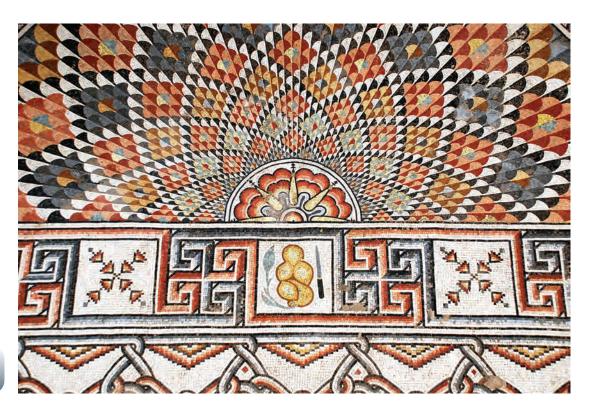








N4







N6









P2



P3



P4







Mosaic of the Diwan



A1











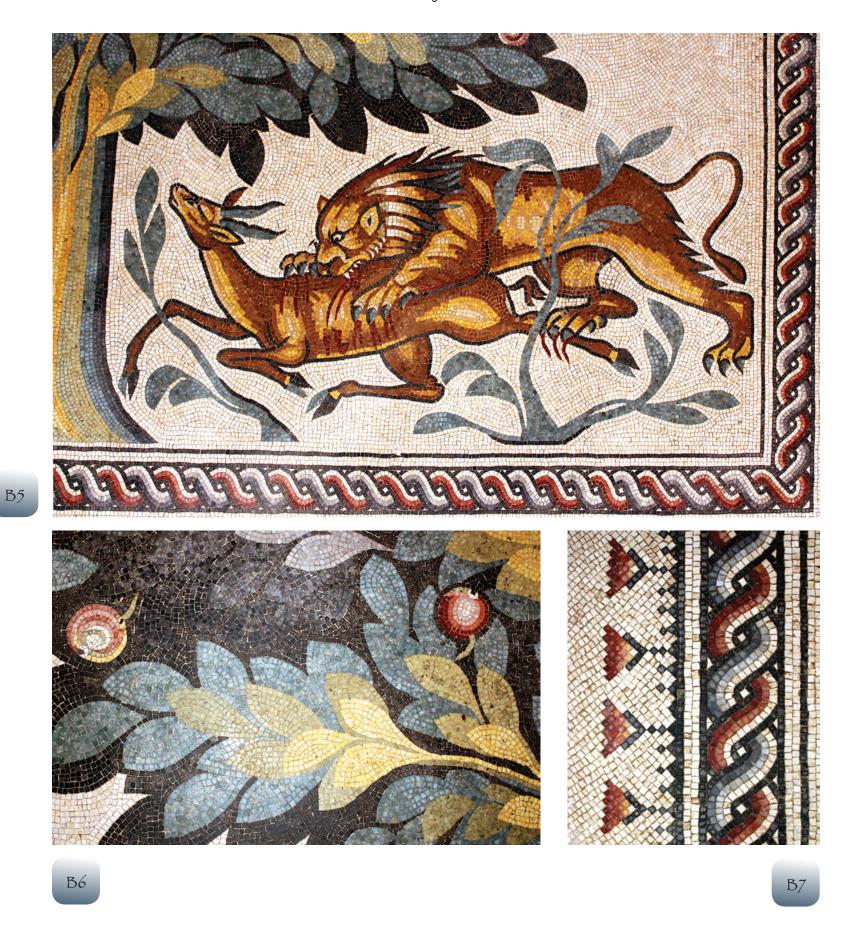




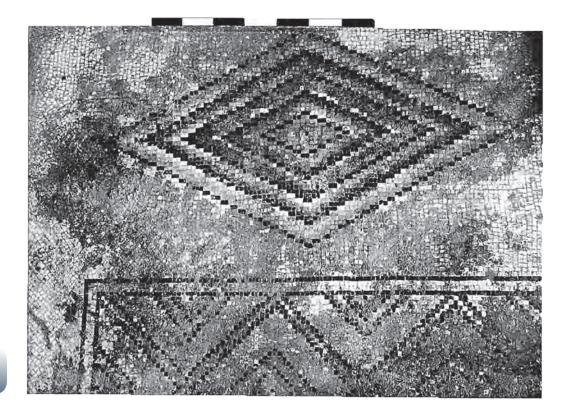


B4

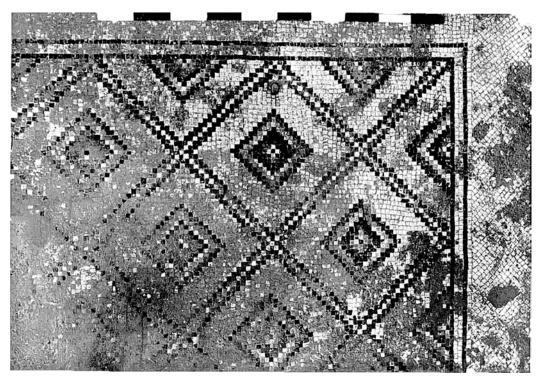
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Mosaic of the Sirdab

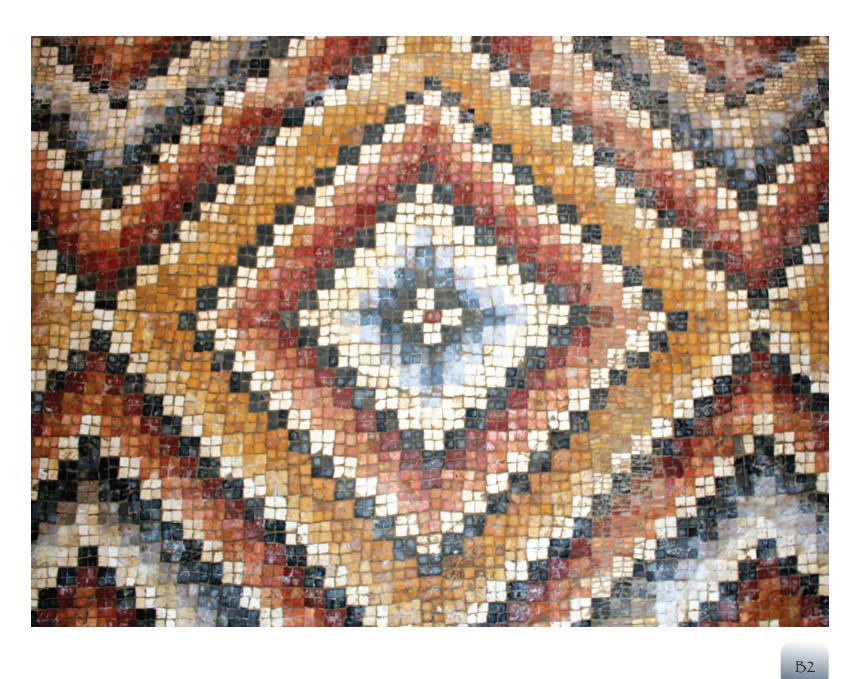


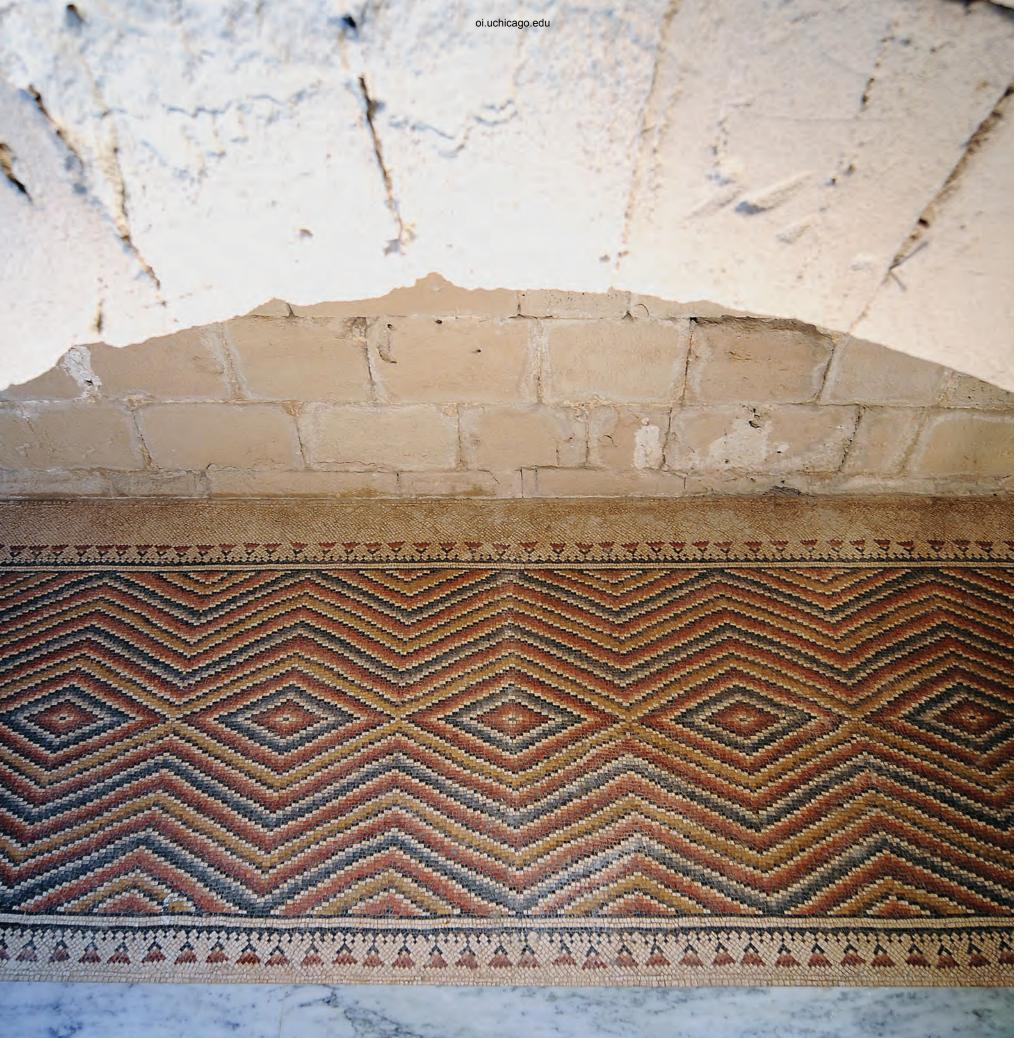
A1

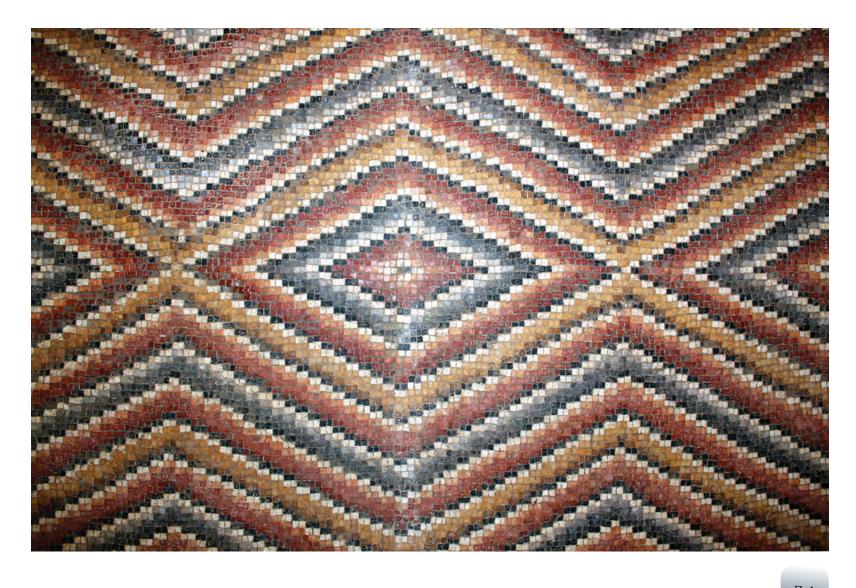


A2









D4



Mosaic of Other Areas



< B5

Figure A. White mosaic floor of room F east of the bath



Figure B. White mosaic covering the interior of the grape press, discovered in 2011



Figure C. Fragments of glass mosaic discovered in fill from previous excavations



Abstract

Hisham's palace (Qasr Hisham or Khirbet el-Mafjar) is regarded as one of the finest examples of early Islamic art and architecture. The site is located near Jericho and consists of a palace, an audience hall and bath, and an agricultural estate. Among the most prized arts preserved in these ruins are the beautiful colored mosaics, principally the vast carpeted floor of the audience hall. These were discovered in excavations of the 1930s and 1940s and are known mainly from very fine aquarelle paintings. The present volume presents a definitive series of digital photographs, taken after cleaning and restoration by the Department of Antiquities and Cultural Heritage in 2010.

Recent excavations of the Department with the University of Chicago have renewed interest in presentation of this unique monument. A new museum and visitors' guide have enhanced the understanding of the context of these mosaics. A restoration team and a mosaic laboratory have been established with the help of the Italian government. Unfortunately, the mosaics themselves cannot be experienced; they lie under a protective coating and sand until an appropriate shelter may be constructed over them. Until that time, we hope this presentation of the mosaics contributes toward making Hisham's Palace a prime destination for tourists and a pride of the Palestinian state.







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