
AN EARLY ROMAN MOSAIC FLOOR IN THE JEWISH VILLAGE OF MAGDALA, GALILEE

Rosaura Sanz-Rincón *

Anahuac University, Ancient Cultures Research Centre, Av. De las Torres 131, Col. Olivar de los Padres. Álvaro Obregon, PO. 01780, México City, Mexico

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Abstract

Mosaic floors during the Early Roman period in Galilee are uncommon decorations in settlements inhabited by a population which identified with the Judean ethos. Magdala is located in the western shore of the Sea of Galilee; it was founded during the Hellenistic period. The main occupation of this settlement occurred during the Early and Middle Roman periods. The population started to abandon these regions during said periods, and the population moved towards the southern areas, where late Roman remains can be found. In 2011 a mosaic floor was discovered in what has been identified as a ritual area. Art, as a cultural expression, is the key to understand ancient daily life, ethnicity, economic status and religious beliefs. The material cultures of the Galilean and Judean ethos during the First Century share a common and unique artistic style that differs from the one that existed in rest of the provinces of the Roman empire: it was created with Greco-Roman techniques, but depicts exclusively aniconic and geometric symbols; this produced a new style known as Herodian art. This paper aims to give one more case of study on ancient Magdala, its inhabitants, and its cultural identity, through a quantitative and qualitative analysis of the mosaic floor found in one of the most characteristic structures of the site, the mikva'ot, or ritual baths area.

Keywords: Early Judaism, ancient art, mosaic floor, archaeology

1. Introduction

Ancient mosaics floors are a distinctive type of discovery in archaeological excavations. Although quite widespread through the entire Roman Empire, these peculiar craftworks bring valuable information regarding chronology, cultural identity, beliefs and the daily lives of the inhabitants of a settlement. Iconographic analysis, as well as style and composition interpretation, brings first-hand information on the site under study. In fact, ancient residents and artists left a message throughout history.

Magdala, also known as *Migdal Nuniya*, or *Taricheae*, is located at the western shore of the *Kinneret*, Galilee. The site has been excavated since 1970 by the *Studium Biblicum Franciscanum (SBF)*; in recent years the Antiquities Authority of Israel (IAA) performed an excavation for safety purposes. Since

*E-mail: rosaura.sanz@anahuac.mx, tel.: +525556270210 ext.132

2010 the Anahuac University, Mexico, started a scientific excavation and research project at the ancient settlement of Magdala. The site dates from the Hellenistic period to the Late Roman Period in continuous occupation, although some areas were sporadically abandoned from North to South. Thanks to the recently found archaeological remains, it is possible to assume an urban character: even if the population numbers were smaller than Tiberias, Magdala and its suburbs probably functioned collectively [1].

In 2009 the discovery of the First Century Synagogue was announced, along with the finding of the preserved frescoes and the mosaic floors that decorated the building. In 2011, during the excavation of a Southern structure, a ritual area comprised of four *mikva'ot*, or Jewish ritual baths, was found. The area has two structures separated by a street; the one that is under analysis in this paper, 'structure A', has two *mikva'ot* surrounded by courtyards, alleyways, stairs, and rooms. One of these rooms is decorated with a simple patterned mosaic floor (Figure 1) [2].

The room is 3.20 x 2.70 m. A bench of 55 x 195 cm runs parallel to the South wall. The mosaic, created with the *opus tessellatum* technique, was fashioned with a geometric and floral design on a white background; a black swastika meander delimits the central design, which is composed by a red rectangle followed by a reddish rhombus. A rosette is depicted in the centre; its petals are alternatively black and white. The image is surrounded by a reddish circle (Figure 2). The mosaic in the synagogue, which dates back to the same period, has a similar design as the one found in the ritual area. It was probably created by the same workshop, though, through a detailed analysis, it is possible to notice the differences in technique and quality.

The style, technique, and manufacture of the mosaic, alongside the archaeological context of the site, help to understand the ethnicity of the inhabitants of ancient Magdala. The archaeological discoveries confirm an *ethos* that is mainly *Judean*, but there is also evidence of a pagan population at the south of the settlement [3]. Figurative art is prohibited in Early Judaism as a biblical commandment and as a sign of rejection towards foreign traditions; it is expected to find rejection to pagan art in the Jewish populated areas. Absolute alienation is utopic, that is why cultural appropriation happened in ancient times, and art, as a cultural expression, reflects this process. Graeco-Roman decorations and technique started to be popular in the region, even though the artworks respected the iconographic local style as an expression of cultural identity. In some cases, the chosen motifs seem to have meant there was a connection between the Jewish identity of the inhabitants and the dwelling [4].

In later centuries mosaic art would change completely in the region; during the Roman-Byzantine period the mosaicists adopted and adapted foreign imagery, using the Antiochene workshop as a source of inspiration [5]. For the first century, the mosaic paving is a growing form of art. Through a qualitative analysis it's possible to circumscribe if the mosaic floors were produced by local craftsmen, or maybe if an established workshop was hired. It also helps to understand the luxury or simplicity in the materials, and the quality of its

foundations around the final coating. Building decorations following this style was expensive, so its presence denotes a high economic status, but at the same time, the evidence is not overwhelmingly luxurious, especially when it is analysed in detail and compared to other similar mosaic floors.

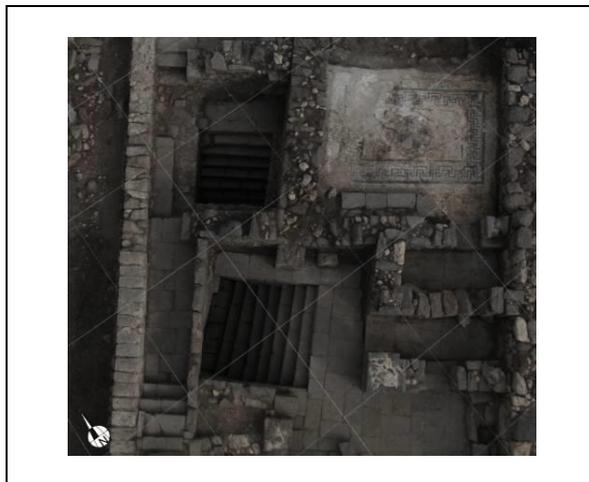


Figure 1. Area A: a structure with two *mikva'ot* (stepped water installations), alleyways, stairs, a courtyard, and the mosaic floor.



Figure 2. The mosaic floor of the *mikva'ot* area facing south, dimensions: 3.20 x 2.70 cm.

2. Experimental

The mosaic floor in the ritual area has never been removed for restoration work, and the consolidation has been done on-site. The excavation took place in 2011 by the author; in 2017 a test trench on the northern edge of the mosaic was excavated to understand its bedding. The foundations and layers of the mosaic

help to understand if the workshop or craftsmen were skilled and educated in Greco-Roman architecture and art style.

The first approach to study a mosaic floor is by a quantitative and qualitative analysis. The number of *tesserae* in a 10 cm² space is a parameter to evaluate quality [6]. For the *mikva'ot* mosaic, five samples were selected in a 10 cm² delimited space. The selection took into account the colour of the stone, its material, and the technique. The density of *tesserae* required to fill the 10 cm² space was counted, and each *tessera* was measured to denote the quality of the production. Three samples were selected in the synagogue mosaic according to similarities or differences between both pieces of art in order to understand if they were made by the same workshop, and if they had the same quality.

3. Results and discussion

Mosaic floors were expensive artworks that used to be commissioned by the inhabitants of a city for public or private spaces, and were chosen for their durability, beauty, and ideological expression. Roman tradition prioritized spaces; the most elaborate mosaics would be reserved for meeting or reception rooms, the less elaborate would be for baths or bedrooms, and the less costly would be placed in hallways or walkways [7]. Some mosaics were commissioned for bathing complexes due to the guaranteed durability of the stone, while the *tesserae* cubic shape allowed the water to run and, finally, dry off faster. The keys to analyse ancient mosaic floors are the foundations, the selection of the stone and the quality of manufacture. These guarantee the durability of the floor, the symmetry of the level and, of course, will allow a variety of iconographic styles that embellish buildings.

The test trench made in 2017 on the northern limit of the mosaic floor aimed to understand the practice of Vitruvius' construction system concerning the bedding of the floor, before the design and placing of the *tesserae*. As a result, it was possible to observe that the bedding floor was composed as follows: the *statumen*, which is the first layer of the bedding, should be composed of stones larger than a hand; in the test trench it was possible to observe this layer along with its characteristics. In the next layers, the *rudus* (stone and lime mixture) and the *nucleus* (tile and lime mixture) were too thin or, at least, not perceptible; it is possible that the materials were not mixed in the right proportion, as Vitruvius suggested. When the restoration was made, no samples were taken, so it is not possible to identify the chemical elements of what could be the *rudus* and *nucleus* mixture over the last layer on which the *tesserae* were placed. A very simple mortar seems to have been used in the ritual baths mosaic; it allowed the artwork medium stability, but not in a desirable state due to the quality of the flooring.

Mosaic floors in Judea show better durability and preservation, while in Galilee, Early and Middle Roman mosaics were usually created on soil with no bedding process; this is why few of them are preserved. One example is the mosaic documented in the 1970 excavation in Magdala, directed by the *Studium*

Biblicum Franciscanum (SBF). In the thermal complex, an alley with a mosaic floor showing the same meander as the one in the synagogue was, unfortunately, completely lost; only a few *tesserae* remain [8]. Mosaics with modest bedding during the Early Roman period can barely be found, like the synagogue mosaic, the mosaic depicted in the thermal bathhouse in the SBF area, or the *mikva'ot* mosaic.

The *tesserae* colour in the *mikva'ot* mosaic seems to have been selected as a limited palette, using only white, black and red. These colours were common during the imperial period in Rome and the provinces, but also mosaics with a limited palette were less expensive to create. The selected samples to be analysed were chosen from these three colours (Table 1).

Table 1. Results of the measurements taken from the 10 x 10 cm samples and individual *tessera* in the *mikva'ot* mosaic.

Sample	Colour	<i>Tesserae</i> size (cm)	<i>Tesserae</i> Density/10 cm ²	Observation on size	Observation on the stone
North-east white background	White	> 1 x 1 < 2 x 1	155 T	Irregularly shaped <i>tessera</i>	Different hues and tonalities, not from local soft limestone quarries
North-west white background	White	> 1 x 1 < 1.5 x 2	148 T	Irregularly shaped <i>tessera</i>	Different hues and tonalities, not from local soft limestone quarries
Centre Rosette.	Black & White	> 1 x 0.8 < 1.5 x 2	150 T	Irregularly shaped <i>tessera</i>	Worn-out stone.
South-east black meander	Black	> 1 x 1 < 1 x 1	190 T	Regular cubic shape	High quality of shape
South-west rectangular red line	Red	> 1 x 2 < 1 x 1	150 T	Irregular shape	Variety of materials, inlay made of limestone, flintstone and pottery

The two white background sampling showed similar stone characteristics in which irregular *tesserae* and a variety of hues and tonalities were displayed widely to have a smooth and uniform colour. The technique is not clear, sometimes *opus tessellatum* can be observed, but in some areas a style similar to *opus regulatum* is followed (Figure 3). This could be because there is not just one mosaicist working on the site, and usually, when a mosaic floor was commissioned to a workshop, the apprentices were in charge of placing the simple backgrounds on-site while the craftsman was creating the main pattern. It is not possible to give an accurate answer about the different styles on the white background of this mosaic, but the theory concerning apprentices and a master working on the same art piece could be a hypothesis. Although the idea of a local workshop is not clear in Galilee, it is possible to hypothesize the itinerancy of a mosaicist, travelling from job to job depending on the mosaic commissions. Another theory is that these itinerant masters and craftsmen created new centres and trained local pupils [9]. In any case, the appreciation of different skills reflected on the floor production is undeniable.



Figure 3. White background samples comparative showing different techniques.



Figure 4. Rosette sample.



Figure 5. Red and black samples.

The rosette sample showed to be made of worn-out stone, and an unknown technique was followed. The *tesserae* are placed respecting only the line of the colour that changes in each petal of the rosette (Figure 4). The sizes of each *tessera* vary between 1.0 cm and 1.3 cm, and are not symmetric; this indicates that the shape of the rosette was created with *tesserae* of different shapes and sizes, and it gives a naive impression. Even if using *tesserae* of different sizes was

a common practice in Early Roman periods to create a smooth change in colours and shapes, in this mosaic the shape of the stone is not regular, and the change does not achieve the smoothness that can be found in other mosaic examples.

The red rectangular band that surrounds the central panel shows a different material. Pottery and flintstone were cut and inlaid as *tesserae*, giving the impression of a uniform reddish limestone band. This was very well known in the *opus musivo* art style during the Hellenistic period, but it is not commonly found in the Early Roman mosaics of the region. It was probably made this way in order to reduce the production expenses. The shape per *tessera* ranges around almost 1.0 cm, and even if it is supposed to be a continuous line, it looks disorganised, and no technique can be traced. The white *tesserae*, which are surrounding the line, also look disorganised; in fact, the white and red colours were set by different craftsmen. On the other hand, the black meander sample is composed of a higher quantity of inlays, 190 per 10cm², and the size of each piece ranges only 0.5 cm, creating the perspective of a uniform and continuous line, it respects the three rows of *tesserae* worked in *opus regulatum*, showing that it was rather made by someone with higher skills than by whoever made the rest of the mosaic floor (Figure 5).

The three samples in the synagogue mosaic were chosen according to colour and technique (Table 2). The intention of showing these results is only to compare both mosaics.

Table 2. Results of the measurements taken from the 10 x 10 cm samples and individual *tessera* in the synagogue mosaic.

Sample	Colour	<i>Tesserae</i> size (cm)	<i>Tesserae</i> Density/10 cm ²	Observation on size	Observation on the stone
White Background	White	> 1.5 x 2.0 < 1.5 x 1.0	128 T	Larger than the rest of the <i>tesserae</i> . Regular shape	Different hues and tonalities
Centre Rosette.	White Black Red	> 1.0 x 1.0 < 1.0 x 0.5	241 T	Irregular shape, but well cut stones. Cubic and triangular when needed	The three colours are made of stone; no presence of other materials
Black Meander	Black	> 2.0 x 2.0 < 1.0 x 1.0	164 T	Regular shape and very well cut in cubic shape	Different hues and tonalities

The measurements of each *tessera* do not vary in a wide range: the white *tesserae* vary a maximum of 0.5 cm, the cubic shape is regular and it is larger than the mosaic floor at the ritual baths. The density is 128 *tesserae* per 10 cm², a lower number compared to other coloured *tesserae*; the technique is uniform in the entire background (Figure 6). The black *tesserae* are also larger in size compared to the mosaic at the ritual baths; it is composed of fewer stones, but the cubic shape is very well-cut (Figure 7). The red colour is scarce in the mosaic at the synagogue, but red stone is exclusively used and there is no intromission of

other materials. The rosette is made in *opus classicum* style. Thanks to the use of smaller *tesserae*, and the symmetric cut cubes or three-sided stones, it achieves the circular line with precision (Figure 8).

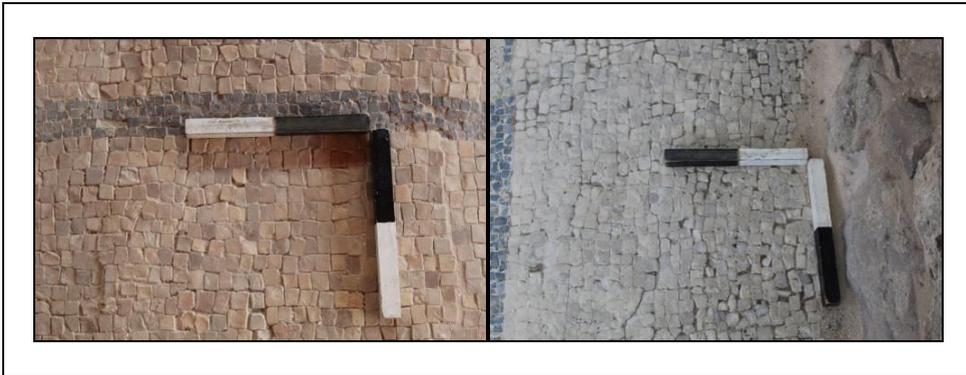


Figure 6. Comparative white background tesserae. On the left, the synagogue mosaic; on the right, the mikva'ot mosaic.



Figure 7. Comparative black meander tesserae. On the left, the synagogue mosaic; on the right, the mikva'ot mosaic.



Figure 8. Comparative rosette tesserae. On the left, the synagogue mosaic; on the right, the mikva'ot mosaic.

The differences in technique between both mosaics are clear: the synagogue mosaic is a more elaborate one and has a better quality, while the *mikva'ot* mosaic strives to imitate the Graeco-Roman style; the results are not the same. Despite this, both mosaics have things in common: the knowledge of the mosaicist regarding the need of bedding, the knowledge about colour and, of course, the most evident similarity, the selected iconography. These related aspects bring to light the theory that the same workshop, artisans or apprentice worked on both mosaics. As Veronique Vassal explains, the lack of documents makes speaking about a workshop in Galilee risky, but the selection of similar geometric motifs on both mosaics is something to think about. The floral motif is known in the eastern context of water since the Hellenistic period, and water plays a very important role in the Hebrew culture [10]. Thus, finding similar iconographic designs in both mosaics, both related to Judean *ethos* expressions, such as the synagogue and *mikva'ot*, is not surprising. The rosette was a frequent motif in Jewish art during the Early Roman period, and it is strictly decorative, devoid of ancient symbolism, but inherited by oriental designs, while the double meander seems to be more common in Galilee and the Golan region, so it should have some influence in Galilee [11].

4. Conclusions

The mosaic floor in the *mikva'ot* area at Magdala seems to have been created by different craftsmen or apprentices; this can be identified in the variations in techniques and quality in the artwork. The presence of *statumen* explains the Graeco-roman knowledge of creating the foundations; it is not simply an imitation of local art styles. Expertise and practice are missing; this can be seen in the lack of mixture for the rest of the bedding. The materials seem to have been prepared on-site, although more studies are needed to understand the origin of the stone, since local quarries in Galilee show no trace of *tesserae* production. The incrustation of other materials, like pottery or flint, in the red coloured areas seems to be a reduction in quality or a lack of red stone, which is not local, even though the knowledge of the use of colour is applied and can be noticed in the smooth colour that was created where pottery is inserted. In association with the synagogue mosaic, which seems to have a better quality, both mosaics were probably made by the same workshop, even though the same techniques and quality were not applied.

The use of aniconic motifs on both artworks denotes the ethnic and cultural identity of the inhabitants. Although geometric ornamentation is a plastic system, their richness is shown in its semantics [12] and, in this case, in the archaeological context that dialogues with the artistic expression.

Mosaic floors, as expensive artwork, are evidence of the high socioeconomic status or the aspirational status of their inhabitants. Ideological, religious and political beliefs are expressed through its designs. In the case of Magdala, the places embellished with non-figurative mosaic floors are the religious ones: the synagogue and the *mikva'ot*. It is worth mentioning that in the

South, the figurative mosaic floor found by the SBF is surrounded by a thermal bathing complex, reported as roman bathhouses with a pagan population. The difference in the geometric and floral mosaics, and the figurative one, seems to be a decision comprised of cultural factors and religious identity; it followed the artistic manifestation of Jerusalem, and expressed a deep connection with the Judean *ethos*.

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