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DECORATED MORTAR PAVEMENTS OF THE EAST – AND THEIR MEDITERRANEAN CONTEXT

Introduction

This article deals with one aspect of interior architectural decoration in houses: namely, mortar pavements. These consist of a mortar¹ mixed with aggregates of various materials such as crushed terracotta or lava, and are decorated with small stone and/or marble pieces which are set into the surface in single rows to form geometric, floral and figured motifs or inscriptions. In eastern Mediterranean floors these inset pieces may be natural pebbles or tesserae. The present work focuses on the tessera-decorated type, which is the subject of an ongoing research project including material from the whole Mediterranean area. This type, which is often termed *opus signinum* or, in Italian, *cocciopesto*, is virtually omnipresent throughout the Mediterranean². Therefore it may be characterised as an international trend in flooring. Despite this it was not until 2006 that the first study, concentrating on technique, decoration and architectural function, including pavements from all over the Mediterranean and also inland areas, was published by V. Vassal³. The extensive usage of mortar floors should be ascribed to their hardwearing as well as aesthetic qualities, which is demonstrated by their occurrence in uncovered and partly covered circulation spaces such as courtyards (rarely however), peristyles and *atria* as well as in service rooms such as bathrooms and representative rooms, e.g. *tablina* and dining-rooms⁴. Moreover, there is also the economic aspect, as they must have been less expensive than genuine mosaics.

The purpose of the article is to focus on motifs and contexts and to place the pavements of the East, here limited essentially to material from Greece and Turkey, in a wider Mediterranean context in order to demonstrate similarities and / or differences in the use and diffusion of the pavement type. An illustrative example not only for the pavement type in question, but also for the coexistence of different techniques within the same floor⁵, is the pavement from a room located outside the Piscina Mirabile at Bacoli in Campania in Southern Italy (fig. 1)⁶. The decorated mortar pavement, representing a labyrinth, is here combined with a central field, an *emblema*, executed in mosaic technique and with an extra effect of larger fragments of multi-coloured stones. The frame is made in regular tessellation, and the field itself makes use of irregular tesserae.

The Central Mediterranean Area

Before looking to the East, the situation in the central Mediterranean area, here defined as the Italian Peninsula, Sicily and Tunisia, should be summarised, as this area has yielded not only the earliest example of a decorated mortar pavement so far documented, but is also the place of origin for the tessera-decorated type as well as the area in which it achieved its highest quantity.

¹ The basic ingredients are lime, sand and water.

² The discussion on terminology is beyond the scope of the present article. For the problems involved and the debate, see e.g. MEZZOLANI 2000, n. 1. 13–15; GRANDI CARLETTI 2001; TANG 2006; VASSAL 2006, 13–27.

³ VASSAL 2006. She has registered a total of 1092 mortar pavements in a database, of which 557 are listed in the catalogue of the volume. Her work includes, however, also undecorated floors and those with a random semis of tesserae.

⁴ Cf. VASSAL 2006, 92.

⁵ Cf. also below.

⁶ The cistern is Augustan, and the rooms were added later (between the end of the 1st c. AD. and the Hadrianic period), but the floor is earlier and originally decorated a room in a late Republican villa (MINIERO 2001, 626 f.).

The earliest pavement is from a sanctuary of Tanit in Carthage and is dated to the end of the 5th c. BC (ca. 425/420 BC)⁷. The floor shows five religious symbols set with irregular and triangular tesserae in marble (figs. 2–4). One of them represents the sign of Tanit. The cross set within a circle is related to the cult of Baal Hammon, and the rosette to Astarte⁸.

Pavements of the late 4th and the first half of the 3rd c. BC form the next step or group, now also making use of cut cubes, i.e. tesserae. The decoration may consist of simple geometric designs, religious symbols or floral motifs. Among the early examples are, for instance, houses at Kerkouane in Tunisia with a *terminus ante quem* of 256 BC when the site was destroyed and abandoned⁹. The motifs include, e.g., the semis of single tesserae, the sign of Tanit, a flower and a grid for board-games. In Peristyle House 1 at Monte Iato (ancient Iaitas) in Sicily dated no later than the early 3rd c. BC, there occur the semis of single tesserae (room 15), the lattice-pattern and squamae (upstairs rooms); at Fregellae in Central Italy the semis of single tesserae adorns the floor of the *tablinum* of Domus 7, dated to the mid-3rd c. BC¹⁰.

The tessera-decorated type continued throughout the Republican period until it went out of use in the early Imperial period (1st c. AD)¹¹. The standard repertoire includes, for instance, the semis of single tesserae (either set orthogonally or diagonally), the semis of bichrome crosslets, the lattice-pattern, the meander and the pseudo-shield composed of lozenges¹². In the late Republican period more complex and elaborate designs, e.g. with polygons and circular compositions, were added to the repertoire as can be seen in the House of Confuleius Sabbio at Capua from the early 1st c. BC¹³. The numerous examples from the Vesuvian cities of Pompeii and Herculaneum belong mainly to this period as well.

One should keep in mind that in the period under investigation a wide range of paving methods and decorative elements was in use simultaneously in both the central and eastern Mediterranean area, and, as already seen, these were also combined within one and the same floor¹⁴.

This applies, for instance, to the pavement from Buccino (ancient Volcei), località S. Stefano, in Campania in Southern Italy. The floor that is dated to the late 4th or early 3rd c. BC shows a typical centralised composition with an *emblema* containing a six-pointed star¹⁵. It combines a limestone disc (the central part of the star), *opus tessellatum* for the white areas (the rays of the star, central field, borders) and mortar – both red and black (the *emblema*, dolphins, borders and surround).

The Eastern Mediterranean Area

The practice of combining techniques is found in a house in Corinth, located near the theatre. The floor is mainly a pebble mosaic, but has got smaller areas of plain mortar. It is dated to the second third of the 4th c. BC¹⁶. Another example is from an *andron* in Alexandria, the site of the former British Consulate. Its dating should be no later than the mid-3rd c. BC¹⁷. Here the areas reserved for the dining-couches and inside the first band are made of mortar, whereas the bands themselves are made of *opus tessellatum* (terracotta tesserae); the doormat mosaic, depicting a lattice-pattern, and the central rosette consist of black-and-white pebbles.

⁷ The sanctuary was installed around 480 B.C. in the southern part of room E in House 1-South located in the quarter below the Decumanus Maximus, which has been excavated by the University of Hamburg. Already in its first phase the sanctuary was provided with a mortar pavement, however without motifs. The sanctuary was given up around 350 BC (NIEMEYER – DOCTER – SCHMIDT 2007, 116–119. 123–127; K. SCHMIDT in: NIEMEYER – DOCTER – SCHMIDT 2007, 201–203; R. F. DOCTER – H. G. NIEMEYER in: NIEMEYER – DOCTER – SCHMIDT 2007, 217–223; F. O. HVIDBERG-HANSEN, in: NIEMEYER et al. 2007, 223–228).

⁸ The last two symbols are poorly preserved, but probably depict a fish and a rosette. For illustrations, see NIEMEYER et al. 1995, Abb. 10a-d; NIEMEYER et al. 2007, fig. 87c; pl. 18b.

⁹ The destruction and abandonment have been linked with the First Punic War during which the Romans occupied Cap Bon (256/55 BC). The town suffered a partial destruction at the end of the 4th c. BC (FANTAR 1984, 14–19. 63–74. 77–79).

¹⁰ Kerkouane: FANTAR 1984, 537–540; FANTAR 1985, 255–258. 379. 385. Monte Iato: BREM 2000, 73 f. 86. 103. pls. 20, 1–4; 21, 2–3; 102, 2–3; 103, 4. Fregellae: COARELLI 1995, 19 and fig. 4.

¹¹ Later examples may occur, but are rare, e.g. at Aosta in Northern Italy (FRAMARIN 2004).

¹² For the development of motifs, see GRANDI 2001. For pavement designs and their terminology in general, see BALMELLE et al. 1985; BALMELLE et al. 2002.

¹³ PAGANO – ROUGETET 1987.

¹⁴ For this phenomenon, see also WESTGATE 2002.

¹⁵ JOHANNOWSKY 1997, 582 f. and figs. 1–5. For a photo, see also VASSAL 2006, fig. 15.

¹⁶ SALZMANN 1982, 95 pl. 23, 1. 2.

¹⁷ GUIMIER-SORBETS 2001; GUIMIER-SORBETS 2004, 40. For a photo cf. also VASSAL 2006, fig. 14.

In Greece mortar pavements or surfaces are documented in the later 5th and 4th c. BC. These are, however, undecorated (sometimes the surface is painted) and primarily used for the raised platforms of dining-rooms, e.g., in houses at Olynthos¹⁸.

The earliest example of a pavement with a decoration in single rows, so far documented, is from a poorly preserved structure at Larisa in Thessaly. Building and floor are dated to the end of the 3rd c. BC (fig. 5)¹⁹. The pavement is unique; it is made from white mortar with black pebbles inserted into the surface. Moreover, metal nails are used for the centres of the small circles. The design consists of an eight-pointed star or sun, which is only partly preserved, in the centre. The star is framed by a circular border decorated with a meander. The latter is composed of alternate swastikas and squares containing a cross. These motifs are inscribed within a large circle. Only the outermost circle and the border including the meander are formed by single lines. The influence from the pebble mosaics is clear both in respect of the overall composition and the choice of motifs. Circular designs are e. g. documented in the Centaur Bath at Corinth at the end of the 5th c. BC, the houses at Olynthos, e.g. the House of the Comedian and the Villa of Good Fortune, and in the Palace at Vergina. In the Centaur Bath the central motif is a wheel-pattern framed by a meander and other motifs. The closest parallel in the Greek area is the sixteen-pointed star in the centre of the mosaic in the *andron* in the House of the Mosaics at Eretria (dated towards the mid-4th c. BC), but it is on a much smaller scale and surrounded by floral ornaments as well as a figured frieze²⁰. In general the star- or sun-motif is commonly found on Macedonian objects in metal, for instance on the lids of the chests from the royal tombs at Vergina and on roundels used for the adornment of cloth.

Tessera-decorated mortar pavements are a late phenomenon in the eastern Mediterranean, i.e. from the later part of the 2nd c. BC onwards. As is the case of the most parts of the Mediterranean, their appearance here can be ascribed to the migration of people from the central Mediterranean area, primarily Italians/Romans, following the Roman involvement in and conquest of the area.

According to the present state of research fourteen pavements of this type have been recorded in all. Recent finds have more than doubled the number of known pavements in Greece, and this might suggest that more is to be found. Unfortunately, these finds are unpublished or described in a summary way in the excavations reports, and therefore the number should be taken with some reservations²¹. Despite the modest quantity and thus slight impact on urban living, the material contributes to the overall picture of preferences for interior architectural decoration in the period under investigation.

With over 100 houses available for research Delos is a natural point of departure. The pavements are well-known, as they were published by Bruneau in 1972 in the series *Exploration archéologique de Délos*²². The floors belong to the period known as the Second Athenian Domination, 167/166 to 69 BC, and more specifically to the late 2nd and early 1st c. In this period the island was one of the most important trading centres of the Mediterranean due to its status as a free port, and it housed an international population with Italians/Romans forming one of the main groups²³. The substantial presence of people from the central Mediterranean area did not, however, result in a widespread use of mortar pavements with tessellated decoration. Only four pavements are extant²⁴. They derive from the House of the Trident, which is located

¹⁸ ROBINSON – GRAHAM 1938, 174–184. 282 f., with examples from other sites.

¹⁹ TZIAPHALIAS 1988.

²⁰ For these examples cf. e.g. DUNBABIN 1999, chapter 1. A parallel outside Greece for the star is the aforementioned floor from località S. Stefano at Buccino.

²¹ A floor found in Patras is referred to as an *opus signinum*, but whether it is decorated or not does not transpire from the text (PETRITAKI 1990, 111). I am grateful to Dr. Maria PAPAIOANNOU for drawing my attention to this find.

²² BRUNEAU 1972. For mortar pavements, see 22 f. 133. 302. 310. 316.

²³ Rome's reorganisation of Greece after the Third Macedonian War (172–168 BC) also affected the sacred island, which after a period of independence was given to Athens in 167/166 BC and at the same time was created a free port. Here the mortar pavements with geometric motifs are just one example of the Italic/Roman influence on the island during the period, especially in the later part. Their significant influence is e.g. reflected in the construction of the Agora of the Italians and the Agora of the Hermaistai/Compitaliastai (cf. TANG 2005, 53–55. 57–65).

²⁴ Seven other mortar pavements have not got any decoration or show only a scatter of tesserae (cf. BRUNEAU 1972, cat. 8. 105. 106. 112. 151. 252. 339). Cf. also VASSAL 2006, 134 f. The most common pavement types on Delos are chip pavements and tessellated mosaics.

in the Theatre Quarter, the Fourni House in southern zone of the island and the Agora of the Italians to the north of the Sanctuary of Apollo (tab. 1)²⁵.

In the case of the House of the Trident, the fragments decorated with a meander (fig. 6) came from the upper floor and due to the separate access to the staircase in room h it remains uncertain whether the pavement belongs to the house or to a separate upstairs unit. The Fourni House most likely functioned as clubhouse for an association. The floors are found in two rooms²⁶. In room AC there is a semis of bichrome crosslets with an orthogonal layout, i.e. the rows run parallel to the walls of the room (fig. 7). A grid of diagonally set squares adorns the central field of room AH and a semis of crosslets decorates the threshold area. Both houses belong to the group of rich Delian houses in terms of size (286 and c.700 sq. m respectively), layout – including a peristyle –, number of rooms and interior architectural decoration such as figured mosaics. Moreover, the two houses reflect a fusion of different cultural traditions. In the House of the Trident these features are e.g. the axis from the western entrance (room a) through the Rhodian peristyle to the main room (room k). This is considered an Italic/Roman element, whereas the main room is a typical Hellenistic board-room with flexible use. Stucco masks of men with tall pointed hats are regarded as a Syrian element²⁷. In the entrance room (room a) of the Fourni House paintings related to the Roman cult of the Lares Compitales were found. A large number of sculptures came from the building including e.g. thirteen reliefs, which represent both Greek and Egyptian divinities²⁸.

The presence of decorated mortar pavements speaks in favour of Italic/Roman owners or occupants, at least at some point during the lifetime of the houses²⁹. However, due to the interaction between various groups of peoples in business life as well as in social life, it would be no cause for surprise to find Greeks and others employing the pavement type.

The floor of niche 18 of the Agora of the Italians is decorated with the lattice-pattern (fig. 8), obviously in an Italic/Roman context. In this niche the Italians erected an honorific statue of Gaius Ofellius Ferus, who had financed the western portico of the agora³⁰. He was an Italian himself; he came from Campania³¹. The agora is traditionally dated to the very end of the 2nd c. BC, but a date around 130–120 BC has also been proposed³².

At Kalydon on the Greek mainland a house of ca. 400 sq. m. has been found on the acropolis during the new Greek-Danish excavations³³. Two mortar pavements are documented. The better preserved is decorated with a lattice-pattern and the other with a semis of single tesserae. (figs. 9, 10). I would like to thank Dr. Søren Dietz and Dr. Maria Stavropoulou-Gatsi for permission to reproduce the photographs. The mortar is red and coarse, but in general the white tesserae are set with accuracy. The strategic location of Kalydon at one end of the important east-west communication network between the Adriatic Sea and the Corinthian Gulf made it a natural objective for Roman interest in the first place. According to Pausanias, not only Kalydon, but also the rest of Aetolia became depopulated as a result of the reorganisation of the area and its re-settlement by Octavian who founded the colony of Patras on the Peloponnese and the city of Nikopolis near Actium³⁴. Though the dating of the house is still awaited, it would seem reasonable to assume these historical events as a *terminus ante quem* for its construction.

The largest ensemble of decorated mortar pavements in the Greek area comes from a house at Naousa, ancient Mieza, in Northern Greece. Unfortunately, not all the pavements are described in detail in the

²⁵ For plans of the houses, see e.g. CHAMONARD 1922–1924, pls. 3, 4; TRÜMPER 1998, map I figs. 40, 59.

²⁶ A third pavement is provided with a scatter of tesserae (BRUNEAU 1972, cat. 339).

²⁷ MARCADÉ 1952, fig. 10. That the Roman Lares Compitales were worshipped in this house might be suggested by the niche to the left of the entrance on the western side that points to an Italic/Roman origin of the owner/occupant. There are, however, no traces of paintings in the niche, and perhaps it served as location for a lamp.

²⁸ For the reliefs cf. e.g. MARCADÉ 1973.

²⁹ An Italic/Roman association in the Fourni House can be deduced not only from the Lares Compitales paintings but also from the T + U design of the pavement (in *opus tessellatum*) in the dining-room (room f/AN), i.e. identical with the characteristic layout of Roman *triclinia*.

³⁰ ID 1683. For plan cf. LAPALUS 1939, fig. 6; QUEYREL 1991, fig. 14.

³¹ QUEYREL 1991, 416 f. 435.

³² QUEYREL 1991, 413–417.

³³ The excavations have been conducted from 2001 onwards. For more information see <<http://www.kalydon.net/index.htm>> and TANG forthcoming.

³⁴ Paus. 7, 18, 8–9.

excavation reports, but at least six pavements with geometric designs seem to have been excavated³⁵. These are located in the western part of the house which was built in the 2nd c. BC and includes an *atrium*³⁶. The floor in the *atrium* is decorated with a lattice-pattern to the north and south of the *impluvium* and a semis of tesserae, with orthogonal layout, on its eastern and western sides. The lattice-pattern is also documented in one of the rooms to the east of the *atrium*. One of the four rooms south of the *atrium* shows a pavement with a labyrinth and a *squama* in the centre, another is decorated with squares; the meander also occurs in one room (or more rooms?)³⁷. The mortar is reddish, and primarily white tesserae form the designs. Judging from the photos, the tesserae vary in sizes, and the general impression is somewhat rough. At first it might seem surprising to find such a large ensemble of mortar pavements in Northern Greece. However, the creation of the Roman province of Macedonia in 148–146 BC meant a constant Roman presence, and in addition Macedonia served as a base for the military operations against various barbarians that continued to threaten the stability in the area. The need for a well-functioning infrastructure in order to secure the supply of troops resulted in the construction of the Via Egnatia in the second half of the 2nd c. BC³⁸. This road passed through Edessa, which is situated close to ancient Mieza. Moreover Pella was made a Roman colony shortly after the mid-1st c. BC, and Augustus refounded it³⁹.

Two floors are documented at Pergamon. They are both located in large peristyle houses. One adorns room 38 in the House of Attalos, which was built not earlier than the second quarter of the 1st c. BC⁴⁰. The red mortar is decorated with a white lattice-pattern, and as an additional embellishment each rhombus has got a central dark tessera. Room 38 is situated immediately to the west of the characteristic three-room suite. If one judges from its size alone Judging by its size alone, it is clearly a secondary room in comparison with this and the two large rooms on the short sides of the peristyle. The second pavement, also showing a white lattice-pattern, is situated in a house on the Hill of Musalla Mezarlık, dated to the Augustan period⁴¹.

To summarise: The tessera-decorated mortar pavements in the eastern Mediterranean display a homogeneous picture (tab. 1). All motifs belong to the standard repertoire with white tesserae and the lattice-pattern (6 examples) as the most common. It is characteristic that neither complex nor innovative designs occur. The quality is variable, and sometimes the execution is somewhat careless. Apart from the *atrium* at Naousa, decorated mortar pavements are attested in covered rooms only. Some of these rooms might have been used for social events, e.g. in the Fourni House, but so far the pavement type has not been documented in a main reception room of a house in the eastern Mediterranean. The ensemble from Naousa stands out due to its Roman architectural setting. Moreover the mortar floors have a predominant role, occurring in at least six rooms, e.g. in the *atrium* itself. As far as the interpretation of the functions of the other rooms is concerned, we must await the publication.

On the basis of the fourteen examples so far ascertained, it is obvious that the Roman takeover of the eastern Mediterranean did not disrupt already-existing floor decoration methods, but simply resulted in the introduction of the decorated mortar pavement type. Its diffusion was very limited. Obviously, there was no market for the type here, and we may assume the owners or occupants of the houses had a central Mediterranean background rather than have been local Greeks.

In Paolo Bonini's 2006 monograph on houses in Greece in the Roman period there are no references to decorated mortar pavements in the entries of the 162 houses dated in the Roman period, defined as the 1st – 3rd c. AD⁴². This strongly implies that the pavement type had at the latest gone out of fashion or use by the end of the 1st c. BC.

³⁵ ALLAMANI – MISAELIDOU 1992, including illustrations. Cf. also VASSAL 2006, 135 f.

³⁶ The dating was presented by Dr. Maria Papaioannou at the colloquium, based on her personal communication with the excavator. For plan of the house and photos of the pavements cf. also the article by M. Papaioannou in this volume.

³⁷ ALLAMANI 1989, 305; SOURI 1989; ALLAMANI – MISAELIDOU 1992, 210 f.

³⁸ FASOLO 2003, 97 f. 103.

³⁹ PAPAZOGLU 1988, 136 f.

⁴⁰ SALZMANN 1991, 440–444 fig. 11; WULF 1994, 152; cf. also VASSAL 2006, 212 fig. 20.

⁴¹ SALZMANN 1991, 452 fig. 24; SALZMANN 1993, 398; WULF 1994, 154.

⁴² BONINI 2006, 3.

The Western Mediterranean Area

The results of a rapid survey of material from the Iberian Peninsula clearly testify a different situation from that in the eastern Mediterranean: firstly, the pavement type is present in large numbers; secondly, there is far greater variety of motifs, and thirdly not only Italians/Romans, but also Greeks and Iberians, used such floors in their houses. Thus this type of pavement made a significant impact on urban life in this geographic area. According to Vassal's checklist, there are 74 decorated mortar pavements from Spain, including also floors with a random semis of tesserae⁴³. The fact, however, that her catalogue only contains a part of the material, makes it impossible to determine how many floors are provided with proper motifs⁴⁴.

One of the major sites with decorated mortar pavements is Ampurias, which is located in the north-east zone of Catalonia in Spain, on the south-west side of the Gulf of Rosas. It is identical with ancient Emporion/Municipium Emporiae and was founded by Phoceans in the early 6th c. BC⁴⁵. There exist at least 25 floors (tab. 2). These are, however, unpublished, and therefore again the number should be taken with some reservations. It should be noted that the pavement type is documented in all three nuclei of the city: Palaiapolis, which is the initial settlement and was originally located on a small island just off the coast⁴⁶, Neapolis (modern name), situated on the mainland south of Sant Martí d'Empúries and with the earliest material from the first half of the 6th c. BC, and the Roman city, located to the west of Neapolis and established around 100 BC.

As far as chronology is concerned, the earliest securely dated examples belong to the first quarter of the 1st c. BC and are found in the *atrium* houses in the Roman city. The present appearance of the houses in Neapolis is supposed to date to the late Republican period and early Imperial times⁴⁷.

The motifs are the usual ones, but there is a greater variety and there are also more complex ones. However, here too the lattice-pattern is the most frequent (15 examples). Often several different motifs occur inside the same room. In room 38, located to the left of the *tablinum* in the Roman house 1, the central field is decorated with bichrome crosslets set randomly, and a lattice-pattern adorns the *emblema*. The border shows a swastika-meander with squares in each space, and finally the surrounding is decorated with crosslets (fig. 11). A room in the northern part of the same house has a more complex and sophisticated design composed of a pseudo-shield of lozenges inscribed within a square (fig. 12). A small rosette forms the centre, and each rhombus has a central tessera. Floral motifs fill the spaces between the pseudo-shield and the square. It is striking how extensively the inhabitants in Neapolis adopted the pavement type. Actually, it is more common than mosaics. Moreover, decorated mortar pavements occur in all house types: from the simplest ones consisting of three rooms only to those with a courtyard, peristyle or an *atrium*. Inscriptions in Greek occur in three houses, for instance, in the dining room (room 2) of House 52 (fig. 13)⁴⁸.

Even more complex designs exist on the Iberian Peninsula, e.g. at Cartagena, the ancient Carthago Nova. One example is an undated pavement from Calle Soledad⁴⁹. The outer field is decorated with a semis of bichrome crosslets. Then follows a border composed of squares, each with a large inset piece. The central field contains a rectangular *emblema* enclosed in a large rhombus. The corners of the central field are decorated with dolphins executed in *opus tessellatum*. Several fillets in alternating colours enhance the decorative effect.

Inscriptions in Iberian testify that the pavement type was also adopted by indigenous people, e. g. at Andelos in the region of Navarre (fig. 14). It is dated to the 1st c. BC⁵⁰. It reads: LIKINE ABULORAUNE EKIEN BILBILIARS. The first two words are a Celtiberian name and family name, whereas EKIEN corresponds to *salve/salute* and BILBILIARS refers to the city of Bilbilis in Catalonia. Apart from the

⁴³ VASSAL 2006, 88.

⁴⁴ Earlier studies have registered 34 sites in the Middle Ebro Valley (LASHERAS CORRUCHAGA 1984, fig. 2).

⁴⁵ The colonists came either directly from Phocaea in Asia Minor or from Marseilles (ancient Massilia). For the history of the site and information in general see MARCET – SANMARTÍ 1990; MAR – RUIZ DE ARBULO 1993; TANG 2005, 107–154. 310–332.

⁴⁶ The earliest finds date to 575–550 BC. Today it is located beneath Sant Martí d'Empúries.

⁴⁷ Only a few houses can be dated more precisely. This applies to House 7, which was built or remodeled before the last 3rd of the 1st c. BC, and thus the mortar pavements here predate this period (SANTOS 1998, 558 and note 7).

⁴⁸ For the interpretation of the room and the inscription, see e.g. OLMOS ROMERA 1989, 45–52.

⁴⁹ RAMALLO ASENSIO 1985, 44 and pl. 6a.

⁵⁰ MEZQUINEZ IRUJO 1991/1992.

inscription, the floor is decorated with complex designs as well: a latchkey pattern of swastikas (white), a floral motif (black) and a swastika-meander with squares in each space (white).

Conclusion

Mortar pavements embellished with motifs were not a common method of floor decoration in the eastern Mediterranean. They were a supplement to the mosaics, and the inserted materials are also identical with those used for the mosaics in the area: the pebble-decorated was followed by the imported tessera-decorated type, which reflects the Roman takeover.

Seen in an overall perspective, decorated mortar pavements were in use simultaneously at different sites in the Mediterranean, i.e. (apart from the early finds in the sanctuary in Carthage) from the late 4th c. BC onwards. The elements inserted may differ, whether pebbles, irregular or regular tesserae. The tessera-decorated variant with its standard repertoire of mainly geometric designs arrived both in the East and West with the settlement of Italians and Romans in the late Republican period, but found a highly differentiated diffusion. The modest number in the eastern Mediterranean should be no cause of surprise, bearing in mind the long tradition of figured mosaics which goes back to the late 5th c. BC. Moreover, at the time of the Roman conquest and until the later part of the 1st c. BC, the polychrome tessellated mosaic was one of the most prestigious types of flooring, also on the Italian Peninsula. Therefore it is only natural to find *opus tessellatum* and *opus vermiculatum* in the most important rooms of the house. The sporadic occurrence of decorated mortar pavements indicates, as mentioned above, Italian/Roman owners/occupants, and thus, in the East, the pavements do function as a marker of origin. It is difficult, however, to determine whether the occupant was conscious of this (which might be the case at Naousa) or whether it was a simple wish of having something familiar, which also happened to be a more economic solution than a genuine mosaic. In all cases there was no interest in or market for creating sophisticated designs.

The situation is different on the Iberian Peninsula. Here there was no continuous tradition of paving techniques, and the Italian/Roman colonists simply brought with them a well-established method of floor decoration. It had the advantage of being not only aesthetically pleasing but also affordable, e.g. for local Iberians who wanted to imitate the lifestyle of their new masters, and in these cases the floor no doubt also added prestige to the houses and its occupants. In general the pavement type was welcomed and apparently seen as something new and fresh judging by the frequent occurrence in the ›old‹ part, i.e. Neapolis, of Ampurias.

Table 1:
The eastern Mediterranean: Occurrence of motifs in mortar pavements decorated with tesserae

Motif	Semis	Lattice-pattern	Meander	Grid of squares	Squama	Crosslets	Labyrinth
Context							
Delos House of the Trident			×				
Delos Fourni House				×		×	×
Delos Agora of the Italians		×					
Kalydon	×	×					
Naousa	×	×	×		×		×
Pergamon House of Attalos		×					
Pergamon House, Musala Mezarlık		×					

Table 2:
Ampurias: Occurrence of motifs in mortar pavements decorated with tesserae

Motif	Rows	Semis	Lattice-pattern	Pseudo-shield	Meander	Grid of squares	Squama	Crosslets	Rosette central	Flowers	Shield	Inscription in Greek
Palaiapolis	x	x										
Neapolis 1									x			x x
Neapolis 7			x x									
Neapolis 19			x									
Neapolis 34			x									
Neapolis 35		x										
Neapolis 43			x									
Neapolis 52		x	x		x							x
Neapolis 75			x									
Neapolis 80		x		x	x					x		x
Neapolis 85									x			
Neapolis Temple P			x									
Roman 1			x x	x	x			x				
Roman 2A*												
Roman 2B			x x x x	x	x x x	x	x	x x		x	x	
Roman 3			x									

* = one room with unknown design

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Sources of Illustrations

- Fig. 1: Soprintendenza per i Beni Archeologici di Napoli e Caserta.
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Fig. 1: Bacoli, pavement of the room outside the ›Piscina Mirabile



Fig. 2: Carthage, quarter below the Decumanus Maximus, House 1-South, room E, sign of Tanit

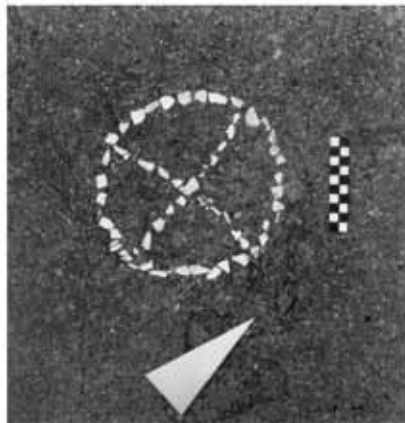


Fig. 3: Carthage, quarter below the Decumanus Maximus, House 1-South, room E, symbol of Baal Hammon



Fig. 4: Carthage, quarter below the Decumanus Maximus, House 1-South, room E, symbol of Astarte

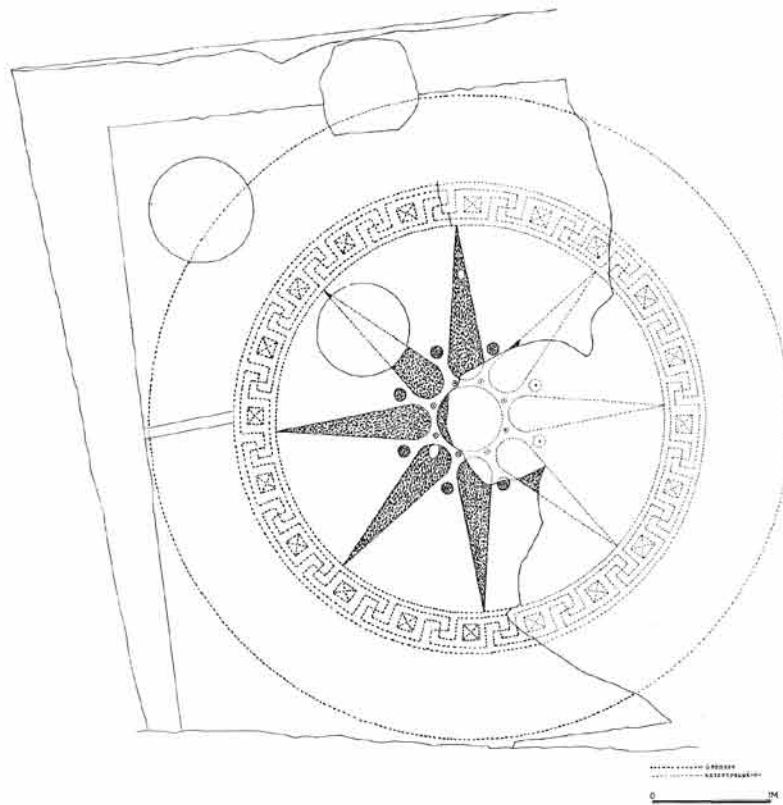


Fig. 5: Larissa

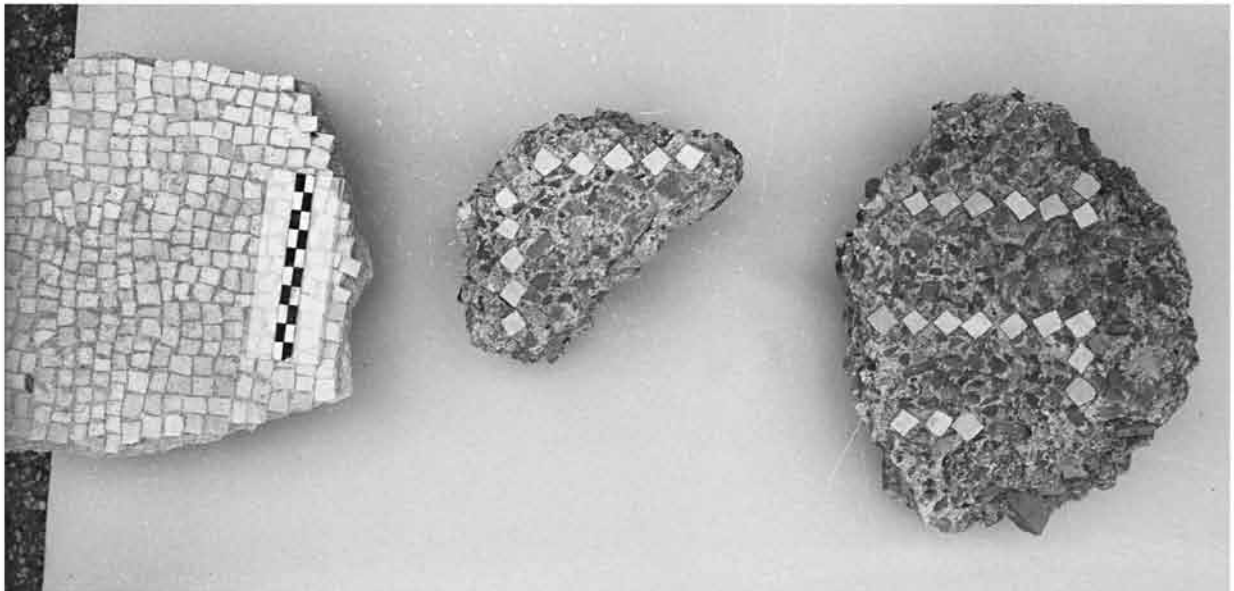


Fig. 6: Delos, House of the Trident, fragments from upper floor (photo: EFA / Ph. Bruneau)



Fig. 7: Delos, Fourni House, room AC



Fig. 8: Delos, Agora of the Italians, niche 18



Fig. 9: Kalydon, House on the acropolis



Fig. 10: Kalydon, House on the acropolis, detail



Fig. 11: Ampurias, Roman city, Roman house 1, room 38



Fig. 12: Ampurias, Roman city, Roman house 1, room in the northern part



Fig. 13: Ampurias, Neapolis, House 52, room 2



Fig. 14: Andelos