

MOSAICS OF THE GREEK AND ROMAN WORLD

KATHERINE M. D. DUNBABIN



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PART I: Historical and regional development

Origins and pebble mosaics

THE ORIGINS of decorative mosaics in Greece have been much disputed. Earlier theories traced them back in the east as far as the coloured cones of terracotta used for wall decoration by the Sumerians at Uruk-Warka in the fourth millennium BC;¹ but a search for so distant a derivation has long been discarded, and the technique may rather be seen as an indigenous development in Greece. Floors paved with plain or coloured pebbles set into clay or plaster are found there from a very early date; the practice probably arose wherever suitable materials were available from riverbed or seashore. Simple examples of such floors are found in Crete as early as the Neolithic period, and were used by both Minoans and Mycenaeans; on one late Mycenaean example, from a house at Tiryns, the pebbles are set to form a rudimentary pattern.² After the Bronze Age there is a gap in our knowledge, and undecorated pebble floors appear next in temples and sanctuaries of the seventh and sixth centuries BC, for instance in the Sanctuary of Artemis Orthia at Sparta, and the Temple of Athena Pronaia at Delphi.³ In the latter, pebbles of several colours are combined indiscriminately, but there is no sign of the use of patterns on such floors at this date. On the fringes of the Greek world, however, patterned pebble floors were in use earlier among peoples with whom the Greeks were in contact. They have been found at Gordion in Asia Minor, in three houses of the Phrygian period dating from the late eighth century BC. In the best preserved, the west Phrygian House, dark blue, dark red and white pebbles were laid in a clay bed to form a variety of geometric motifs without any overall design.

These include several chequer patterns of squares, and many motifs which later formed a standard part of the mosaicists' repertory: simple maeander, lozenges, rosettes, the swastika. Later buildings at Gordion show the tradition continuing in the sixth and fifth centuries; the patterns now were clearly laid out in repetitive chequers and maeanders.⁴ Other examples of pebble floors with simple patterns dating from the eighth century have been found further East, at Altintepe in eastern Anatolia, and in the Palaces of Arslan Tash and Til Barsib in Assyria.⁵

The earliest decorated mosaics to survive in Greece date from the late fifth century BC. It must remain doubtful whether they were influenced by the early examples of decorated pebble mosaics in Asia Minor and Assyria; an independent evolution is perhaps more likely. Although precise dates are often lacking, there are enough which possess *termini* established on archaeological or historical grounds to permit a general outline of their development. The largest group consists of the pavements from the New Town at Olynthos in northern Greece, founded in 432 BC, and destroyed by Philip of Macedon in 348; these general limits may be accepted for the mosaics.⁶ Other early examples come from the Peloponnese, from Attica and Euboea; there is no reason to assign their invention to any one region of the Greek world. The earliest stage is represented by a mosaic from the Centaur Bath in Corinth, a building constructed in the last quarter of the fifth century⁷ (figures 1, 2). The centre of the floor is occupied by a large, four-spoked wheel, the spaces between the spokes alternately

¹ E.g. Gauckler 2090–1, followed by many later authors. For the Uruk-Warka mosaics, cf. A. Parrot, *Sumer* (London/New York 1960), 67, figs.84a–b; M. Brandes, *Untersuchungen zur Komposition der Stiftemosaiken an der Pfeilerhalle der Schicht IVa in Uruk-Warka* (BaM Beiheft 1, Berlin 1968).

² C. Podzuweit, D. Salzmann, 'Ein mykenischer Kieselmosaikfussboden aus Tiryns', *AA* 1977, 123–37; Salzmann 5, 114 no.129.

³ R. Dawkins, *The Sanctuary of Artemis Orthia at Sparta* (London 1929), 6–7; R. Demangel, *FdD* 11, 3, *Le Sanctuaire d'Athéna Pronaia 1, Les Temples de Tuf* (Paris 1923), 16, fig.22.

⁴ R. Young, 'Early mosaics at Gordion', *Expedition* 7,3, 1964/5, 4–13; Salzmann 6–7, 93–4 nos.46–56, for the dates.

⁵ Salzmann 4, 82 no.5, 84 no.15, 114 nos.127–8, with refs.

⁶ *Olynthus* 5, 13–14; *Olynthus* 8, 1–17, 287–9; Salzmann 11. W. Hoepfner, E.-L. Schwandner, *Haus und Stadt im klassischen Griechenland (Wohnen in der klassischen Polis 1*, 2nd edn Munich 1994), 99, 103–5, 338 n.255, conclude that all the Olynthos mosaics are to be placed after the beginning of the fourth century, including one from the Old Town often considered to be earlier (*Olynthus* 2, 26; Salzmann 11, 21–2, 104 no.93). Recent discussions about the later history of Olynthos appear to indicate only very limited later occupation of the site; cf. Hoepfner, Schwandner, *ibid.*, 70.

⁷ C.K. Williams II, J. Fisher, *Hesperia* 45, 1976, 109–15, pls.13, 14; Williams, *Hesperia* 46, 1977, 45–51, pl.19.



1 Corinth, Centaur Bath, general view. Original size 4.60 m × 4.60 m. End of the fifth century BC.



2 Corinth, Centaur Bath, detail of centaur (north-east corner).

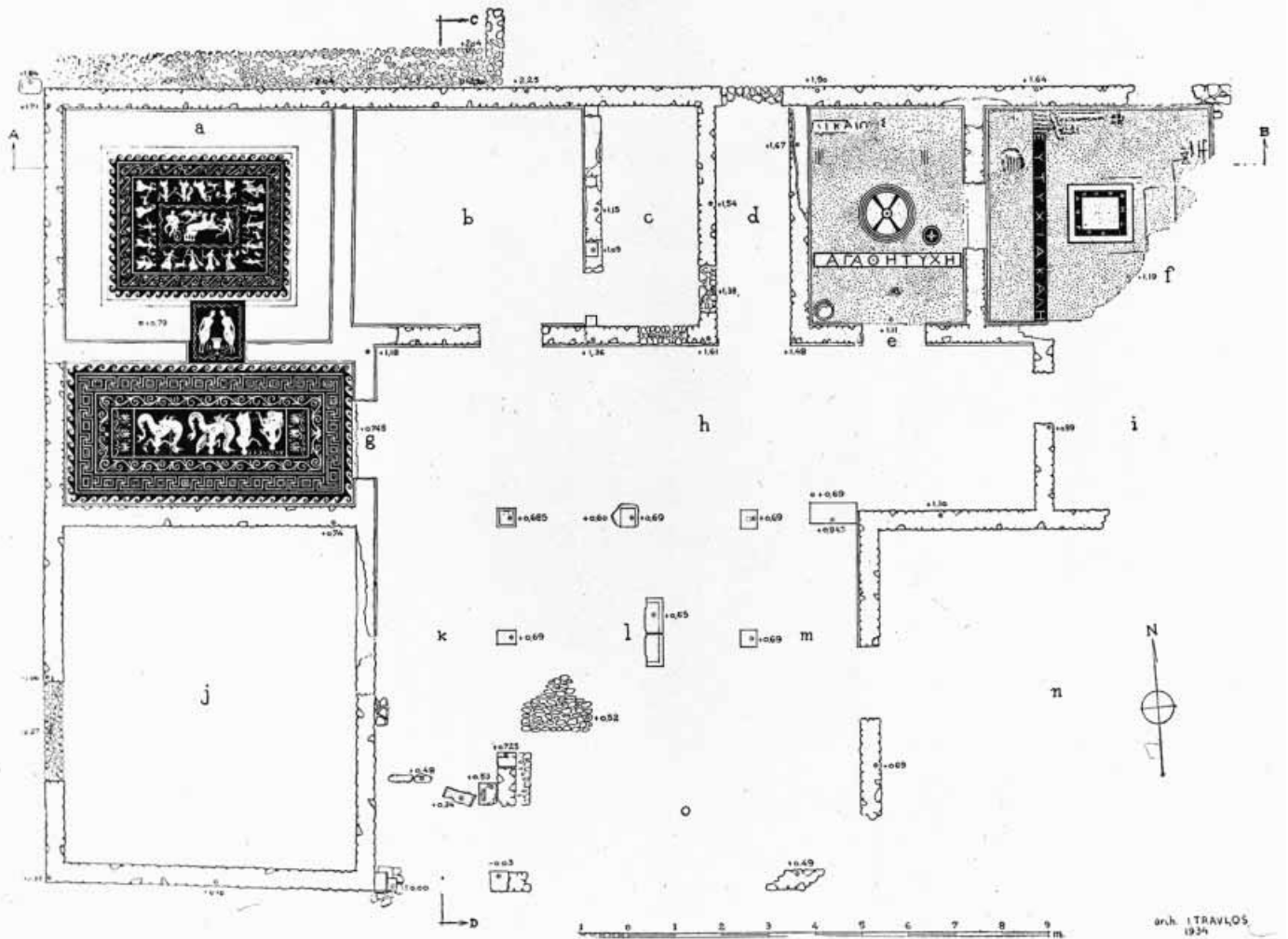
black and white; around it are circular borders of triangles, a maeander, and a waveband. In the angles between this circular design and the outer square are figures, shown in white silhouette against a plain black ground: two survive, a centaur chasing a spotted feline, and an ithyphallic donkey. Within the figures black lines are used to show overlapping limbs and the main features of the centaur; there is no attempt to render musculature. A few red and tan pebbles are scattered at random on the black ground, but colour is not used for deliberate effect. Although the treatment of the figures is simple, the floor is well designed and the geometric motifs competently handled except for an error in laying out the waveband. This is not an art in its infancy, even if we cannot trace it back any earlier.



3 Olynthos, House of the Comedian, *andron* mosaic. 1.85 m × 1.60 m; entrance panel 1.00 m × 0.95 m. First half of the fourth century BC.

Following this initial stage, a group may be distinguished which belongs to the late Classical period, from the early fourth century down to c.340 BC. It is best represented by most of the mosaics from Olynthos, by several pavements from Corinth and Sikyon, and by the House of the Mosaics at Eretria. The pavements of this period are composed of smooth natural pebbles; the average sizes vary from as little as one centimetre in diameter in some floors to five centimetres or more in others; most are between one and two centimetres. They are set in a layer of fine mortar on top of a coarser layer, which in turn rests on a foundation of larger stones, much as in the later tessellated mosaics. The designs are normally laid in white against a dark ground, though examples of dark-on-light are found occasionally. Some floors are strictly bichrome, others use pebbles of additional colours, yellow, red, and green, for details, or scatter them at random among the stones of the background.

The mosaics of this period are found almost exclusively in private houses, in contrast to the plain pebble floors of the Archaic period, which were found in temples. Their use here testifies to the increasing demand of the wealthier citizens for elegance and comfort in their domestic surroundings. They were evidently a luxury; even at Olynthos, the site where the greatest single number has been found, they are confined to a small percentage of houses. Their use within the house is also limited. A few occur in courtyards and corridors, where their practical, water-resistant and hard-wearing qualities were evidently valued. Most often, however, they are found in dining-rooms (*andrones*) (figure 3). A decorated portion in the centre of the room is usually surrounded by a plain raised band for the dining couches, and often accompanied by a separate panel at the threshold, and sometimes by a similarly decorated anteroom. These constitute the reception area of the house, where the master entertained his friends at dinner and the symposium;



4 Olynthos, Villa of Good Fortune, plan. First half of the fourth century BC.

decoration is concentrated where it will impress the visitors.⁸

On some of these pavements, the choice of motifs does not appear to be governed primarily by ornamental considerations. On one floor at Olynthos (A XI 9), in a courtyard, motifs are scattered at random, with even less organisation than those of the Gordion floor several centuries earlier.⁹ Prominent among them are swastikas, concentric circles and circles divided into four quadrants forming a wheel-pattern, and a double axe. Circles or wheel-patterns occur on several other floors at Olynthos,

sometimes as part of a very irregular design;¹⁰ they are found also in the Centaur Bath at Corinth, and on later pebble mosaics in Athens, Megara, and Eretria.¹¹ In the Villa of Good Fortune, one of the grandest houses at Olynthos, two small rooms decorated with motifs of this sort give an indication of their probable significance (figure 4). In the first, a large and a small wheel are placed immediately above an inscription reading *Agathe Tyche*, 'Good fortune'. Other motifs are scattered around this and the adjoining room, which has inscriptions reading *Eutychia kale*, 'Success is fair', and (around a

⁸ Cf. K. Dunbabin, 'Triclinium and stibadium', in W.J. Slater ed., *Dining in a Classical Context* (Ann Arbor 1991), 121–2. Practical considerations also encouraged the use of mosaics in dining-rooms, since they allowed the floor to be flushed down with water to remove the debris of the meal.

⁹ D.M. Robinson, *AJA* 38, 1934, 510, pl.xxxi; *Olynthus* 8, 127; Salzmänn 21, 100 no.83. The absence of organised design is not a sign of early date; the house, which is one of the few that apparently continued in use after 348, may owe its present form to late rebuilding (Hoepfner,

Schwandner, *Haus und Stadt* (cit.n.6), 103–5).

¹⁰ *Olynthus* 12, 254–7, pls.203, 221; *Olynthus* 2, 26, fig.99; *Olynthus* 5, 9, 11–13, pls.vii, 14b, 16b; Salzmänn 98–104 nos.81, 85, 91, 93.

¹¹ Athens: H. Thompson, R. Wycheley, *The Athenian Agora* 14, *The Agora of Athens* (Princeton 1972), 180–2, pl.89; Salzmänn 88 no.25. Megara: Salzmänn 96 no.70, with refs. Eretria, gymnasium, among other good luck symbols: K. Scheffold, *AntK* 9, 1966, 114–15; Salzmänn 92–3 no.44.

central square) *Aphrodite kale*, 'Aphrodite is fair'; among the motifs are a double axe, a swastika, and at the entrance a large 'A'. Although the function of the rooms is not clear (suggestions have ranged from a gaming-den or brothel to – more probably – a shrine of Aphrodite), the inscriptions suggest that the motifs serve as lucky or apotropaic symbols, reinforcing the allusions to Good Fortune; and the wheel/circle is probably the Wheel of Fortune.¹² It may therefore be suggested that one function of the floor-decoration was the attraction of good luck, and the exclusion of hostile influences from the house or some portion of it; where ordered design is entirely lacking, this role may be taken to be dominant.

Most of the mosaics in this late Classical group are much more decorative than these. They are usually designed with a series of borders or friezes around a central element; many compositions are based on a circle-in-square design. Border-patterns include the maeander, wave-band, scroll, palmette frieze, and rows of triangles. Figures sometimes form a frieze, most often with rows of animals, real or fabulous; others may be placed in rectangular panels, or in the angles between a circle and an enclosing square. Some of the finest examples of this group come from the House of the Mosaics at Eretria, which has a *terminus post quem* of the early fourth century¹³ (figures 6, 7; plate 1). An *andron* is decorated with a central circle with a star surrounded by a lotus-and-palmette frieze, with eagles and ox-skulls filling the angles of the enclosing square. Then comes a figured frieze with Arimaspians fighting griffins on two sides, lions attacking horses on the other two; and an outer border of maeander. A panel at the entrance shows a Nereid riding a sea-horse; in the anteroom are sphinxes and felines in a border of lotus-and-palmette. In this group of mosaics animal scenes and friezes are common; mythological scenes are comparatively rare, and usually occupy central panels. In the *andron* of House A VI 3 at Olynthos Bellerophon is neatly placed in a circle, mounted on Pegasus and striking at the Chimaira beneath; numerous concentric borders surround the

circle, while a separate threshold panel shows griffins with their prey.¹⁴ The most elaborate design of the group is found in the *andron* complex of the Villa of Good Fortune at Olynthos (figures 4, 5). In the anteroom Thetis leads a procession of Nereids mounted on sea-monsters to bring new arms to Achilles; they are placed in a long rectangular panel, surrounded by a series of borders. A small panel with two Pans confronted across a *crater* occupies the threshold. In the *andron* itself further borders surround a large central panel, which combines a figured frieze, of maenads and satyrs, with a central panel showing Dionysus driving his leopard-chariot.¹⁵

The figures on the mosaics of this group are essentially two-dimensional, light against a dark ground. Dark figures on light occur once, on a fragmentary mosaic from Sikyon, but seem to be used there simply as a variation.¹⁶ Interior details are indicated by lines of dark pebbles. A development may be traced from a minimum of interior detail on the figures of the earliest mosaics of the group to a fuller rendering on those presumably to be placed later in the fourth century: thus the Bellerophon mosaic at Olynthos belongs to a slightly earlier phase in the development than those in the Villa of Good Fortune. There are, however, few precise dates to support this relative chronology, and the evolution was not necessarily uniform in different regions. Additional colours are used tentatively at first, then with increasing confidence, to highlight specific parts of a figure or to pick out objects and details. A griffin on a threshold at Sikyon has uniform red patches on its wing and body, and a red tongue (figure 8);¹⁷ the Nereid from the House of the Mosaics at Eretria rides a sea-horse with red fins, wears yellow shoes and a red-bordered cloak, and carries a yellow shield rimmed in red (plate 1). Figures, human and animal, are in rigorous profile in the earliest examples, and faces continue to be in profile throughout this period; but later examples show freer movement of the rest of the body. The Maenads in the Villa of Good Fortune, for example, twist and turn in a variety of poses, though the lines that indicate their swirling drapery are coarse and simplified; the

¹² Robinson, 'The Villa of Good Fortune at Olynthos', *AJA* 38, 1934, 501–6, figs.1–2; Robinson, *CP* 41, 1946, 208–10 (gambling-parlour); Salzmänn 103 nos.89–90; Hoepfner, Schwandner, *Haus und Stadt* (cit.n.6), 93 (suggesting that the rooms had a cult function and the building as a whole was a club-house).

¹³ P. Ducrey, I. Metzger, K. Reber, *Eretria 8, Le quartier de la Maison aux Mosaïques* (Lausanne 1993), esp.85–96. They propose a date around 360 (against Salzmänn 27, 90–1 nos.36–8, who proposed c.350–40).

¹⁴ *Olynthus* 5, 4–6, pls.1, 12; Salzmänn 23, 99 no.78.

¹⁵ Robinson, *AJA* 38, 1934, 506–10, pls. xxviii–xxx; *Olynthus* 8, 55–63, pls.16, 84; *Olynthus* 12, 341–68, pls.1–111; Salzmänn 24–5, 102 nos.87–8. Salzmänn dates the mosaics c.370–60 BC, on the basis, among other criteria, of the character of the scroll border on the mosaic of Achilles and Thetis.

¹⁶ D. Salzmänn, *AA* 1979, 290–306; Salzmänn 25–6, 111 no.116.

¹⁷ From the threshold of the room with the scroll, discussed below, n.20; Salzmänn 26, 112 no.118.



5 Olynthos, Villa of Good Fortune, Dionysiac mosaic from *andron*. 3.90 m × 3.20 m.

Arimaspian at Eretria, brought to their knees by the attacking griffins, move freely in complex positions. Overlapping of figures or parts of figures is avoided at first, then it too comes to be rendered more confidently. In the Villa of Good Fortune, Dionysus' pair of panthers overlap, and the paws of one are seen against the running satyr, while the Nereids in the anteroom sit somewhat precariously on the coils of the sea-monsters. A second mosaic of Nereids from Olynthos, presumably slightly later, places the Nereids much more freely and firmly on the sea-monsters' backs, and coils the creatures' tails into spirals.¹⁸ In none of this group is there any use of modelling or shading;¹⁹ nor do the figures have any indication of spatial setting.

Floral and vegetal elements – rosettes, palmettes, acanthus and ivy scrolls – occupy a prominent place on many of the mosaics. A development may be seen here more clearly than with the figures. Early examples are stylised

and two-dimensional; and conventional designs such as the palmette continue to be treated in this way. The scrolls, however, acquire a greater richness, and begin to be treated in a more three-dimensional manner. An especially fine example from Sikyon covers the whole floor with a design of interlaced scrolls around a central rosette, symmetrical and artificial in overall composition, but increasingly realistic in individual details (figure 8). The leaves curling back from the stems and the great trumpet-flowers in which the scrolls end are now rendered three-dimensionally, and red is used to enhance the effect. The mosaic looks forward to the magnificent floral designs that are characteristic of the early Hellenistic period.²⁰

These early pebble mosaics have often been compared to textiles; but in fact the mosaicists clearly drew their inspiration from many sources. The designs of the floors with their multiple borders, usually slightly set in from the edges of the room, are indeed reminiscent of a carpet,

¹⁸ *Olynthus* 2, 80–8, figs.203, 205; *Olynthus* 5, 2–3, pls.11, 11; Salzmänn 25, 98 no.77.

¹⁹ The shield carried by the Nereid in the House of the Mosaics at Eretria gives a slight hint of shading through the admixture of red and yellow pebbles, but it is done in a very unsystematic way; in the

same mosaic, volume is occasionally suggested by the lines in which the pebbles are set.

²⁰ Orlandos, *Praktika* 1941–4, 59, fig.3; Salzmänn 18, 112 no.118, suggesting a date c.360–50; cf. below, n.32.



6 Eretria, House of the Mosaics, anteroom and *andron*. Mid-fourth century BC.

with the threshold panel acting as a rug at the door; and they share with textiles their essentially two-dimensional character as a decoration of a flat surface. Some of the common ornamental motifs are among those found in textile decoration or suitable for weaving; and it has been argued that the (apparently) sudden appearance of such floors should be seen as a translation into permanent forms of the luxurious textiles from the Near East fashionable in the later fifth century.²¹ But many motifs, such as the meander, wave-band, and palmette frieze, form part of the standard repertory shared by architecture, vase-painting, and other crafts. Other parallels have been drawn with red-figure vase-painting, with which the mosaics share the representation of light figures on a dark ground, as well as the iconography of some figured scenes. But it seems unlikely that a small-scale art such as vase-painting would have acted as a primary inspiration for work in a very different medium; and the two do not

in fact have much in common. The rendering of the figures on the earlier pavements is infinitely less sophisticated than on contemporary vase-painting, and seems to revert to a level of anatomical knowledge typical in that medium of a century or more earlier. The evolution within the handling of the figures which has just been discussed is an internal evolution, as the mosaicists grew more confident in the handling of their material; it does not run parallel to any similar evolution in vase-painting, but rather aims to catch up with achievements mastered there much earlier. Only in the treatment of vegetal ornament is there a comparable development in mosaic and vase-painting, which does suggest a relationship, though perhaps in the sense that both drew on a common source.²²

The influence of major painting is hardly to be discerned in these early mosaics. Written sources suggest that painters in the late fifth and fourth centuries were pre-occupied with questions of naturalism, the representation of space and handling of the third dimension, and the use of shading to model form in figures and objects. These concerns are foreign to the mosaics of the late Classical period, though a few tentative steps in this direction are to be seen on some of the finest examples, those from the House of the Mosaics at Eretria or the Sikyon scroll. Only at the end of the fourth century is an attempt to imitate or rival the achievements of painting perceptible in the mosaics, and then in a very specific group.

This next group belongs to the early Hellenistic period, approximately the last third of the fourth century BC. Its outstanding products are the mosaics from two large houses in the Macedonian capital of Pella, dated on archaeological grounds to the closing decades of the century.²³ House 1.1 contained figured mosaics of a Lion Hunt and of Dionysus (figures 9, 10), both occupying the centre of large *andrones*, while threshold panels represented a griffin with its prey and a pair of centaurs. Coarser geometric designs of lozenges and squares paved the anterooms to the *andrones*.²⁴ In House 1.5 there were

²¹ F. von Lorenz, 'Barbaron hyphasmata', *RömMitt* 52, 1937, 165–222; Ph. Bruneau, *Archeologia* (Warszawa) 27, 1976, 20.

²² Cf. M. Robertson, 'Early Greek mosaic', in *Studies in the History of Art 10, Macedonia and Greece in Late Classical and Early Hellenistic Times* (Washington 1982), 244–6, for a comparison of the floral designs on the mosaics to the 'flower-paintings' ascribed by Pliny, *H.N.* 21.4; 35.125, to Pausias of Sikyon in the mid-fourth century; Salzmänn 14–20 for parallels between vegetal ornament in vase-painting and other media and that on mosaics.

²³ Makaronas, Giouri 124–45, 168 (for the date). Stratigraphic excava-

tions under the mosaics in both houses revealed an identical system of bedding, and ceramic and numismatic material which gave a *terminus post quem* of 350–25 for both: I. Touratsoglou, *ArchDelt* 30, 1975, A, 165–84. The variations in style and technical means between the mosaics in the two houses should not be ascribed to a difference in date, but to one of workmanship, and perhaps also of models being imitated. Touratsoglou suggests a date early in the reign of Cassander as the most likely.

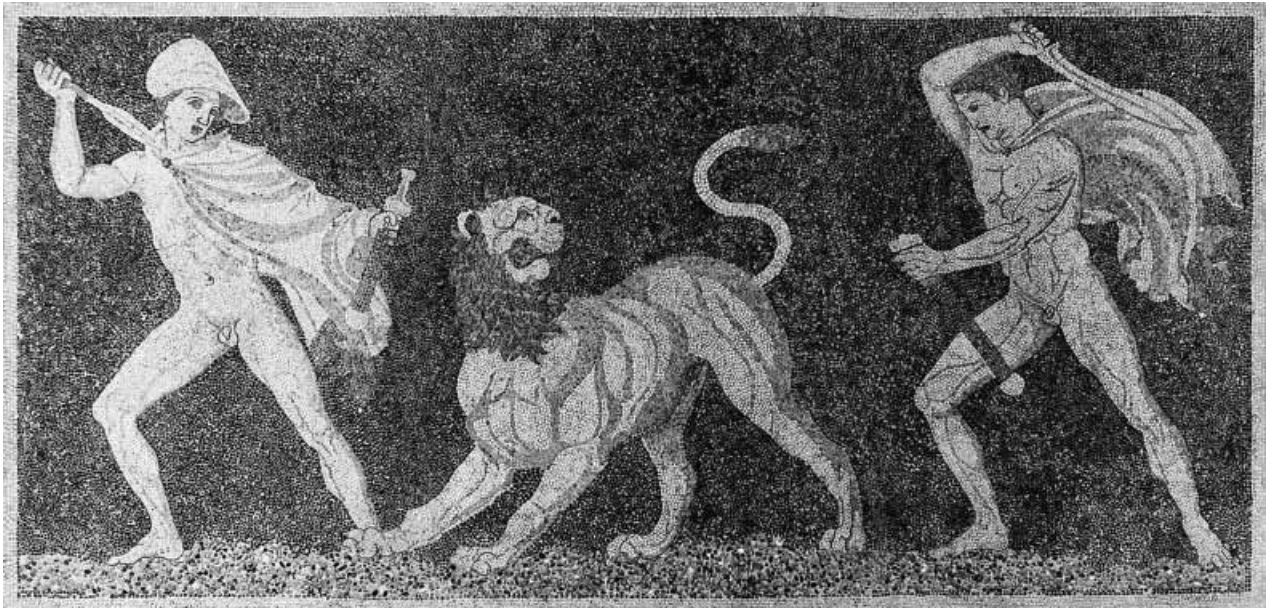
²⁴ Makaronas, Giouri 133–40; Ph. Petsas, 'Mosaics from Pella', *CMGR* 1, 41–56, figs. 1–5; Salzmänn 28–30, 104–6, nos. 94–9.



7 Eretria, House of the Mosaics, griffins and Arimasps from *andron*. 2.60 m × 2.60 m.



8 Sikyon, floral mosaic. Sikyon Museum. 2.86 m × 2.76 m; entrance panel 1.13 m × 0.84 m. Mid-fourth century bc.



9 Pella, House 1.1, Lion Hunt. Pella Museum. 4.90 m × 3.20 m. Late fourth century BC.



10 Pella, House 1.1, Dionysus on leopard. Pella Museum. 2.72 m × 2.69 m. Late fourth century BC.

three figured mosaics, showing respectively the Rape of Helen by Theseus, a Stag Hunt (figure 12), and an Amazonomachy, as well as fragments of two other floral designs.²⁵ All differ in a striking manner from even the most advanced stylistically of the previous group; new techniques are adopted, and there are signs of a new conception of the nature of the medium. Figured friezes have almost totally disappeared; most of the floors still use the design of multiple borders around a central rectangular panel, but this panel has become much more important. The largest, the Rape of Helen, measures 8.48 m by 2.84 m, the Lion Hunt 4.90 m by 3.20 m. The figure scenes in these panels are composed with a concern for movement and the third dimension quite different from any of the mosaics previously discussed. The figures stand on shallow uneven strips of yellow-brown ground; and they are represented with free use of foreshortening. In the Lion Hunt, overlapping is kept to a minimum; but in the Stag Hunt the two hunters, hound, and stag form a densely set group, with a real sense of depth. Even more ambitious is the composition in the Rape of Helen: the charioteer Phorbas drives a four-horse chariot, whose overlapping horses advance in three-quarter view, and looks back at the intertwined figures of Theseus and Helen, while at the end of the panel Helen's companion Deianeira turns as she flees and holds out a hand towards her friend. The poses are complex and convincing; faces are in three-quarter view as well as profile.

Other changes are to be seen in the treatment of the figures. Details are no longer purely linear; shading is used extensively, with clusters of grey and brown pebbles

²⁵ Makaronas, Giouri 124–32; Petsas, *ibid.*, figs.7–10; Salzmann 106–8, nos.100–4.

indicating the musculature of the human body, the folds of the cloaks, the pelts of the animals. Colour is used more freely; though the figures are still light on a dark ground, the stag's pelt is brownish, human hair and animal manes are rendered in red and yellow, several shades of red, brown, and yellow pick out details such as the harness of the horses, the belt and scabbard of a sword, and the tongue of stag and hound. Features are carefully delineated: eyebrows, eyelashes, the curl of a nostril. To achieve these effects, new techniques in the setting of the stones are employed. The pebbles are much more carefully sorted, not only for colour but also for size, with the pebbles in the figures more densely set than in the background. In addition, several of the floors use various artificial means to improve the rendering. In the Lion Hunt, large areas of the outlines of the figures and many interior details are marked off by strips of terracotta, for instance the eyes and nose of the hunters, the outlines of their faces, fingers, toes, and genitals; the curls of human hair and of the lion's mane are individually outlined (plates 2, 3). Traces in the mortar show that these strips must have been set in place first, and the outlines then filled up with pebbles; red lines from a preliminary sketch on the mortar were also visible in places.²⁶ The Rape of Helen also uses terracotta strips for details, but adds thin strips of lead for specific places such as the eye sockets and fingernails. The eyes of all the figures are missing, and are likely to have been of semi-precious stones. In the Stag Hunt, in contrast, no use is made of such strips; but there is a similar striving for sharp definition and clear detail. This is achieved through the use of much smaller pebbles where fine detail is required; the eyebrows, eyelashes, and fingernails of the hunters, for example, and the eyes of stag and dog are all outlined by a single row of small black pebbles.

The mosaic of Dionysus in House 1.1 differs from the rest in its renunciation of three-dimensional effects and in its much simpler composition. The *andron* had the usual raised platform for the couches around the edge. The central area was paved with plain white pebbles, instead of the usual borders around the panel. Here Dionysus, holding a thyrsus, rides on the back of his leopard (or is it a cheetah?), against a completely plain black ground. The heads of god and beast are in profile, though Dionysus' body is in foreshortened three-quarter view, and the effect of the whole is of a classicising simplicity. The technical means, however, do not differ greatly from the Lion Hunt in the same house (figure 11).



11 Pella, House 1.1, Dionysus, detail of head of Dionysus.

Although the interior detail of the god's body is more linear than on those of the hunters, shadows are indicated on his arm and leg and on the further legs of the leopard. Both lead and terracotta strips are used for outlines and details, especially in the faces of god and beast, and for hands and feet. In addition, artificial beads of green clay were used for Dionysus' wreath of vine-leaves and the head of the thyrsus. His eye, and that of the leopard, were again probably formed by a single semi-precious stone.

There can be little doubt that the enormous difference between the Pella mosaics and their predecessors is due to the influence of an art which up to this time appears to have had little impact on mosaic: major painting. The advances in the handling of depth and the use of shading reflect developments in fourth-century Greek painting, as we see them, for instance, in the Macedonian tombs of Vergina and Lefkadia. Thus the hunting scenes may be compared in several respects with that on the façade of the 'Tomb of Philip' at Vergina, the four-horse chariot on the Rape of Helen with that in the Tomb of Persephone; it

²⁶ Cf. Petsas, *ibid.*, 44, 53, figs.12,13; see below, ch.17, n.23.



12 Pella, House 1.5, Stag Hunt signed by Gnosis. Central panel 3.24 m × 3.17 m. Late fourth century BC.

also looks forward (though it is simpler) to that on the Alexander mosaic from Pompeii, whose original is believed to have been a painting of the end of the fourth century.²⁷ The mosaics are no longer conceived as a two-dimensional design spread over the surface of the floor, but as a pictorial figure scene, to which borders are subordinate. Only the Dionysus mosaic lacks this three-dimensional quality, but it differs even more from the mosaics of Olynthos or Corinth in its concentration upon a single, isolated figure group. It seems likely that it too imitates a painting, but in this case the model will have been a classicising work, looking back in composition at least to the art of the fifth century. There is another indication of the new status of the craft of mosaic: along the top of the Stag Hunt mosaic is written *Gnosis epoeseu*, 'Gnosis made this', the first known signature of a mosaicist. The new techniques which are used reveal the mosaicists pushing the art of pebble mosaic to its uttermost limits, in the search for effects finer and more sophisticated than could readily be achieved with natural pebbles. While Gnosis succeeded

in achieving remarkable results without the use of artificial materials, the labour involved must have been extremely demanding. The other mosaics, with their use of lead and terracotta strips and of artificial beads, show the pursuit of effects beyond the limitations of the natural medium. The terracotta strips in particular must have been baked to the required shape before use; this implies the existence of full-scale cartoons for the design, in addition to the preliminary sketch visible in places on the mortar.

Floral motifs on the Pella floors show the culmination of the tendency observed on earlier fourth-century mosaics. Around the Stag Hunt mosaic runs a border of extraordinary richness: scrolls spring from acanthus clumps in the angles, and unfurl along the sides in a series of spiralling tendrils ending in a wide variety of flowers and leaves (figure 13). Though the whole is artificial, individual forms are often highly naturalistic; the overall design is three-dimensional, and polychromy is freely used to enhance the effect. Equally rich scrolls once framed the Lion Hunt mosaic, and two fragmentary floors in House 1.5; and elaborate all-over floral designs of the same type cover two further mosaics from Pella, from

²⁷ M. Andronikos, *Vergina. The Royal Tombs* (Athens 1984), 86–119; Alexander mosaic, below, ch.3, ns.13–17. Cf. also Makaronas, Giouri, 164–8.



13 Pella, House 1.5, Stag Hunt, detail of border.

a circular building (*tholos*) and an *andron* in the Kanali district.²⁸ They are also found outside Pella, on a fragmentary mosaic at Dyrrhachion (Epidamnus), where they frame a magnificent female head in three-quarter view, about a metre high.²⁹ Perhaps the finest of all decorate a room in the Palace at Vergina (ancient Aigai), filling a circle around a central rosette, while female *protomai* ending in scrolls occupy the outer corners³⁰ (figure 14). The scrolls are more regular and symmetrical here than on the Pella borders, in part because of their use as an all-over design, but the three-dimensional character of spiral tendrils and individual flower forms is as strong. The design has been compared to the shoulder-decoration

²⁸ *Tholos*, late fourth century: Ch. Makaronas, *ArchDelt* 19, 1964, B 3, 340–4, pls.398–9, 404; M. Lilibaki-Akamati, 'Ανασκαφική έρευνα στην περιοχή του καναλιού Πέλλας', *ΑΕΜΤΗ* 1, 1987, 137–45; Salzman 19, 29, 108 no.105. *Andron*, beginning of the third century: Lilibaki-Akamati, 'Ένα νέο ψηφιδωτό της Πέλλας', in *Άμητος. Τιμητικός τόμος για τον Καθηγητή Μ. Ανδρόνικο* (Thessaloniki 1987) 1, 455–69, pls.93–4.

²⁹ A.-M. Guimier-Sorbets, 'La mosaïque hellénistique de Dyrrhachion et sa place dans la série des mosaïques grecques à décor végétal', in *L'Illyrie méridionale et l'Épire dans l'antiquité II* (Colloque Clermont-



14 Vergina, Palace, room 13, drawing of floral mosaic. 6.70 m × 6.70 m. End of the fourth century BC.

found on South Italian vases of the late fourth century, which shows the same sense of depth and luxuriant growth, and often frames a female *protome* like that on the Dyrrhachion mosaic. Floral ornament of this type occurs in other media of the same period, notably metalware, and at least once in major painting, in a Macedonian tomb.³¹ All attest to a common repertory, and a shared interest in vegetal ornament, rather than direct influence from one medium to another. The Macedonian mosaics appear in this respect too to show a local development, perhaps the result of the activity of a single workshop, operating also in Dyrrhachion presumably for a special contract. It is an attractive hypothesis that its origins are to be connected with the artists who, two generations earlier, produced the floral mosaic at Sikyon discussed above.³²

The high pictorial quality of the Pella mosaics is unique; no later pebble mosaics even begin to approach it. The reason is surely in part economic, in view of the amount of labour which they must have required; no others have been found in any context comparable to the palatial dwellings of the Macedonian capital. On our

Ferrand 1990 (Paris 1993)), 135–41; Salzman 19, 90 no.33.

³⁰ M. Andronikos, Ch. Makaronas, N. Mpoutsopoulos, G. Balakakis, *Τὸ ἀνάκτορο τῆς Βεργίνης* (Athens 1961), 20–2, pls.x,2, xvi–xvii; M. Andronikos, *Vergina. The Prehistoric Necropolis and the Hellenistic Palace* (SIMA 13, Lund 1964), 7, fig.14; Salzman 19, 30, 114 no.130.

³¹ Refs. in Guimier-Sorbets, 'La mosaïque hellénistique' (cit.n.29); cf. also Salzman 14–20.

³² Above, n.20, and n.22 for Robertson's theory of the association of these floral mosaics with the flower-paintings of Pausias of Sikyon.



15 Rhodes, Bellerophon and Chimaira. Rhodes Museum. Probably first half of third century BC.

present knowledge, therefore, they should be seen as an exception, and not used as an index of the prevailing style of the period. The aim to imitate painting which they display was also to be characteristic of later Hellenistic mosaics, which used different techniques and materials; but it was extraordinarily difficult and laborious for mosaicists working with natural pebbles.

Pebble mosaics elsewhere in Greece which can be assigned to the third century show a predominantly two-dimensional and linear style, more in keeping with the limitations of the medium. Several fine examples have been found in the city of Rhodes.³³ They show large panels, in which the figures are set in white against a plain black ground: Bellerophon and the Chimaira (figure 15), a centaur holding a hare, a Triton. There is no indication of setting, though the figures themselves, especially the frontal Triton, use foreshortening and convey a sense of depth, and the anatomical rendering is considerably more detailed than on works of the pre-Hellenistic period.

³³ G. Konstantinopoulos, *ArchDelt* 22, 1967, B 2, 526, pl.384; Konstantinopoulos, *AAA* 6, 1973, 119, 124, fig.9; Konstantinopoulos, *Ergon* 1976, 166–71, figs.144–7; Salzmänn 32, 110–11 nos.112–15. The mosaics have only a *terminus post quem* in the foundation of the city in 408/7 BC; on the basis of stylistic criteria Salzmänn ascribes them to the first third of the third century.

They are mostly plain black and white with a limited use of grey, sometimes to suggest shading. Lead strips are used in the Bellerophon and centaur mosaics to outline a few details (for instance, the shaft of Bellerophon's spear), but in a much less systematic way than at Pella. Floral scrolls form a border around the Bellerophon and Triton mosaics; they too are simpler and flatter than those at Pella and Vergina, but retain a suggestion of the third dimension. Both the stylistic aims of the Pella mosaicists and the technical means by which they achieved them were therefore known to those at Rhodes; but they were content – probably through a mixture of aesthetic and economic reasons – with much simpler effects.

The later history of pebble mosaics represents a decline in quality. They continued to be produced throughout the third century BC and into the second; there was some enlargement of the decorative repertory, but the standard of execution was seldom high. More interesting is their geographical expansion in the Hellenistic period. In the fourth century they are found almost exclusively in mainland Greece; early Hellenistic mosaics appear in the islands and Asia Minor, and the absence of earlier examples here may be due to the accidents of excavation. But examples dated, certainly or probably, to the third and second centuries are found much further afield: on the

northern shores of the Black Sea, at Olbia and Chersonnesos; on Cyprus, at Kourion and Nea Paphos; and as far east as the palace of Ai Khanoum in Afghanistan.³⁴ Others are found in the west, though it is difficult here to disentangle local traditions from Greek influences. That such independent traditions existed is shown by the discovery of pebble mosaics with simple patterns in Spain dating from the seventh to the fourth centuries BC.³⁵ In Italy too there is evidence for a local tradition of floors where monochrome pebbles were laid in patterns formed by the angle of their setting. But other pebble mosaics in Italy show more Greek influence in composition and choice of motifs, though distinct local characteristics remain. One example in Sicily, at the Carthaginian city of Motya, has often been dated very early, since the city was destroyed in 398/7 BC; however more recent research suggests that it belongs to a reoccupation of the site.³⁶ A group from Arpi in Apulia show animal friezes in black on a light ground, within borders of maeander and wave; the technique is crude, and they seem to represent a local variant.³⁷

In general, after the early third century pebble mosaics represent the survival of a technique which had already passed its prime. Other experiments were underway with different methods of paving a floor, many of which indicate dissatisfaction with the limitations of natural pebbles: a dissatisfaction towards which the mosaics of Pella had already pointed.

Bibliography

Salzmann (who gives a catalogue of all pebble mosaics published up to c.1980); C.M. Robertson, 'Greek mosaics', *JHS* 85, 1965, 72–89, pls.18–22, and 'Postscript', *JHS* 87, 1967, 133–6, pls.23–4; Robertson, 'Early Greek mosaic', in *Studies in the History of Art 10, Macedonia and Greece in Late Classical and Early Hellenistic Times* (Washington 1982), 241–9; A.-M. Guimier-Sorbets, in R. Ginouvès ed., *Macedonia, from Philip II to the Roman Conquest* (Princeton 1994), 117–36.

³⁴ Black Sea: A. Vostchinina, 'Mosaïques gréco-romaines trouvées en Union Soviétique', *CMGR* 1, 315–19, figs.1–2, 5; Salzmann 35–6, 89 no.29, 97–8 nos.73–4; archaeological evidence points to a date in the third century BC for the mosaics from Olbia, the third to second for the one from Chersonnesos. Cyprus: Michaelides, *Cypriot Mosaics*, 4, 10–11 nos.1–2, pl.1; Salzmann 37–8, 126 nos.s.2–3; the Nea Paphos mosaic is dated stratigraphically to the end of the fourth/beginning of the third century. Ai Khanoum: P. Bernard, *CRAI* 1975, 175–80; Bernard, *CRAI* 1976, 291–2; Salzmann 40, 82 nos.2–4; first half to mid-second century BC.

³⁵ D. Fernández-Galiano, 'New light on the origins of floor mosaics', *AntJ* 62, 1982, 235–44: Cástulo (Jaén) and Pozo Moro (Albacete).

³⁶ Boeselager 15–20, figs.1–5; Salzmann 39, 97 no.72; Boeselager rightly says that the provincial character of the floor makes any assignation of a chronology on stylistic grounds impossible.

³⁷ M. Cristofani, *DdA* 1, 1967, 206, figs.36–7; Salzmann 39, 84 nos.12–14. The use of dark-on-light figures does not seem to me, as Salzmann takes it, to be a characteristic of the third century, but rather to be a local peculiarity here.