A PEBBLE MOSAIC IN PEIRAEUS

(Plates 23-24)

well preserved pebble mosaic of a galloping quadriga paves a cave room on the Peiraeus coast between Zea and Munichia harbors (Pls. 23-24). In technique it corresponds to the pebble scenes of the late fifth and fourth centuries B.C. found at Corinth, Olynthos and Sikyon, but the mosaicist has employed perspective devices not utilized in similar pebble pavements. Since, despite emotional overtones, the scene is still imbued with a classical reticence to which the Pella floors in Alexander's aura no longer subscribe, a date within the fourth century would seem appropriate.¹

Iakobos Dragatsis, excavator of the cave complex, illustrated the chariot scene together with the near-by figure of Skylla (since covered over) by line drawing in his report of 1925-1926.² The publication of adequate photographs and a reexamination of the style in terms of the pebble mosaics discovered since the original publication ³ seem justified. The excavator identified the site as the Serangeion, said to have been founded by the hero Serangos and perpetuated as his Heroon.⁴ Harpokration

¹ This study was begun under a Fulbright fellowship to the American School of Classical Studies at Athens during 1949-1950. I am most grateful to Prof. Eugene Vanderpool for rediscovering the mosaic, pointing out the excavation report, and suggesting that I restudy the mosaic in the light of recently discovered pebble mosaics. Miss Gisela M. A. Richter and Prof. Mary Swindler have kindly examined preliminary photographs; Prof. Homer Thompson and Prof. Rhys Carpenter have been good enough to read the manuscript at various stages. To Mrs. Lucy Shoe Meritt I owe my original interest in mosaics. To Mr. Frederick Cooper I express my gratitude for photographs of a dark, difficult quarry; I also wish to thank Miss Anna Benjamin and Mr. Frederick Winter for assistance.

² "Τὸ ἐν Πειραιεῖ Σερανγεῖον," 'Αρχ. 'Εφ., 1925-1926, pp. 1-8, where a Roman date for the mosaics was suggested at a time few pebble mosaics had been discovered and their chronological position had not been established. See also the preliminary report, Dragatsis, Πρακτικά, 1896, p. 16 (summarized in A.J.A., I, 1897, p. 350; Ath. Mitt., XXI, 1896, p. 246; Berlin Phil. Woch., 1897, p. 222); Pauly-Wissowa, s.v. "Serangos"; W. Judeich, Topographie von Athen², Munich, 1931, pp. 435-436. On Dragatsis' archaeological work, see John H. Young, "Ancient Towers on the Island of Siphnos," A.J.A., LX, 1956, p. 51.

⁸ Vague reference to another pebble mosaic from Peiraeus has crept into several surveys of early pavements. Most of these derive from an entry by F. W. Cornish in Sir W. Smith's A Concise Dictionary of Greek and Roman Antiquities, 1898, p. 242. The mosaic mentioned was found in a Peiraeus house in 1884; I have been unable to locate further details. A Roman tesselated mosaic of a Medusa head from Peiraeus, reported in ${}^*\text{E}\phi$. ${}^*\text{A}\rho\chi$., 1894, pp. 99-111, also figures mistakenly in various lists of pebble mosaics. See Blanche Brown, Ptolemaic Paintings and Mosaics and the Alexandrian Style, Cambridge, 1957, p. 81, note 256 for references.

⁴ Dragatsis, op. cit., pp. 5-6. A boundary stone inscribed ἡρψον ὅρος (ibid., p. 8) was found above the area. A much damaged altar within the cave, perhaps Hellenistic, suggests further cult activity; its fragmentary inscription has been interpreted [' $\Lambda \pi \delta$] $\lambda \lambda \omega$ [vos] ' Λ [π] oτ[ρο π] aίον (ibid., p. 5).

For Serangos, see also J. G. Frazer, Pausanias' Description of Greece, V, London, 1898, pp.

Hesperia, XXXVI, 2

records that the Serangeion functioned as a bath house in Aristophanes' lost play of the $\Gamma\epsilon\omega\rho\gamma$ oi (422 B.C.) and in Lysias' case against Androtion; ⁵ the bath house also figured in Isaios' case on Philoktemon's estate and in Alkiphron's letters. ⁶

The tunnels connecting the cave complex with the beach have since been blocked up, and its several rooms now serve as wine cellar for the Spiglia restaurant. The single mosaic still to be seen occupies most of an antechamber to a round dressing room, identified by niches for bathers' clothes and strigils. Scattered pebbles suggest a pavement in the round room as well. A *balaneion* which boasted two or more pebble mosaics would seem to have thrived, and Isaios attests that his client sold the property to Aristolochos for 3,000 (drachmas ?). The transaction took place as part of the settlement of Philoktemon's estate shortly after his death about 376 B.C. 8

Eager driver of the quadriga mosaic, excited steeds, and counterbalancing dolphin are admirably executed in pebbles whose duplicates can be picked up today on the beach below the cave. The uncut stones, almost uniform in size (about 1 x 1.1 cm.), are set evenly in a thin grained red cement, about 100-110 per ten square cm. The rectangular frame, about 2.10 m. by 2.70 m., separates the panel from the unpaved floor by means only of three white rows of pebbles (Pls. 23, 24) whose geometric course is modified by the cave wall at left (Pl. 23). Balance between white figures and blue-black background is carefully maintained in almost equal areas of the surface;

477-478; W. Leake, Topography of Athens, London, 1821, p. 320; I. Bekker, Anecdota Graeca, I, Berolini, 1814-1821, 301, 16; W. Roscher, Myth. Lexicon, Leipzig, 1884-1937, s.v. Serangos; M. Mayer, Die Giganten und Titanen, p. 189; A. Brelich, Gli Eroi Greci, Rome, 1958, p. 145.

⁵ Harpokration, Lex., s.v. Σηράγγιον; this and other sources are quoted by Dragatsis, op. cit., pp. 6-7.

6Alkiphron, Ep., III, 43, 6. See also Photios, Lex., s.v. Σηράγγειον and Hesychios s.v. Σηράγγειον. ⁷ Isaios, VI, 33, " [Euktemon] sold a farm at Athmonon to Antiphanes for seventy-five minas and the bath-house in the Serangeion to Aristolochos for 3000 [drachmas (?)]." (Tr. Forster, Loeb Library, 1927.)

Prof. John Young has suggested that monetary values of mosaics and bath houses might indicate to economists whether the mosaics were in place at the time of the sale of the building about 376 B.C. One drachma is usually considered a normal day's wage for a free man, often skilled. The painting listed in the Attic stelai of 415/14 was only valued at 6 dr., 4 ob.; they range from 12 to 100 drachmas elsewhere (W. K. Pritchett, "The Attic Stelai," Hesperia, XXV, 1956, p. 212). A Peiraeus synoikia (tenement house) sold for 3705 ½ drachmas in 343-342 B.C.; private homes ranged from about 500 to 5000 drachmas in the early fourth century B.C. (ibid., p. 272; B. Meritt, Hesperia, V, 1936, p. 402, line 152, p. 406.)

⁸ The date of ca. 376 B.c. is given by Forster, Isaeus, p. 197. W. Wyse, The Speeches of Isaeus, Cambridge, 1904, p. 484, and note p. 512, places Philoktemon's death in action off Chios between 378 B.c. (the war with Sparta) and 373 B.c. (expedition of Timotheos). R. C. Jebb's former date of 389 B.c. would seem too early. A terminus ante quem for the sale is set by Isaios' speech of 364 B.c. (Forster, Isaeus, p. 201).

⁹ No decorative motifs remain; the adjoining rough floor indicates no continuation of pebbles beyond the edge of the frame, compressed by the narrowing cave. Note that the two lines across the upper right corner of Plate 24, bottom are the right side of the panel.

the spaces are conceived as integral units of the composition in vase-painting tradition and modelling lines one pebble thick break light areas into succinct units. ¹⁰ Stones of natural iron coloring varying from yellow-orange to red accent the horses' bridles, the driver's cap-like hair (?), and the corners of the temperamental steeds' eyes. Greenish gray areas distinguish hoofs and cheek pieces.

Dragatsis suggests identification of the figure with Glaukos,¹¹ the sea deity whose name was given to one of Aeschylus' lost plays.¹² This he does on the basis of Glaukos' partiality for Skylla ¹³ as well as his association with seaboard cults. Moreover, a Glaukos sometimes confused with the sea god wrecked his chariot at games when the horses became frightened.¹⁴ The charioteer in the Serangeion, however, looks decidedly like a woman in form, and is so masterfully handled that one hesitates to challenge the mosaicist's competence in human transcription. Other suggestions for identification are possible.¹⁵

The life-size charioteer (Pl. 23) presents a lithe, coordinated figure as he leans

¹⁰ Geometric organization of the space is evident in the three-part division of the figure into units of 24 cm., repeated elsewhere in the mosaic, and the balancing 30 degree angles of horses and dolphin (Pl. 24).

See Rhys Carpenter, "Tradition and Invention in Attic Reliefs," A.J.A., LIV, 1950, p. 331 and passim, for the "equilibrium of linear forces within the static field" of the Dexileos monument and other works of the late fifth and early fourth centuries B.C.

¹¹ Dragatsis, op. cit., pp. 6 ff. On Glaukos see also the bibliography in Pauly-Wissowa and J. de Witte, "Le Dieu Marin Glaucus," Rev. Arch., 1845, pp. 622-632, where he is shown (fig. p. 627) on horseback with Phosphoros. While Dragatsis presents several persuasive arguments in favor of the sea god who haunted shores and saved sailors at sea, the charioteer differs from the customary bearded, fish-tailed figure envisioned by Ovid, Metamorphoses, XIII, 904 ff.

¹² Aeschylus, Fragments 32, 284, 402.

¹⁸ The Skylla mosaic, Dragatsis, op. cit., pl. 3, was not found directly adjoining the charioteer but in a separate entry to one side (*ibid.*, p. 4). Her identification by two dogs and a fish seems fairly sure on the basis of Dragatsis' drawing, our only evidence since the figure has been covered over. While useful iconographically, his drawings convey little idea of the style.

¹⁴ Pausanias, VI, 20, 19, describes the Glaukos whose wreck formed the Taraxippos at the Isthmian course. (Alternatively he was wrecked at Iolkos or Potniae; R. Graves, *The Greek Myths*, I, Baltimore, 1955, pp. 231 ff.)

¹⁵ Amazons are not accompanied by dolphins (personal communication of Dietrich von Bothmer); few are shown with chariots. See D. von Bothmer, *Amazons in Greek Art*, Oxford, 1957. Nikai are usually more cheerful than the mosaic figure, although several Nike figures parallel the charioteer (Metropolitan silver phiale, *A.J.A.*, XLV, 1941, p. 365, fig. 2, and *Olynthus*, V, pls. 68, 69, 70). The Olynthos driver's upraised left leg explains veering drapery folds comparable to the Serangeion figure's. Perhaps the mosaicist used a Nike figure as a model, and the charioteer's bust merely reflects its source. Helios is often accompanied by marine figures, and the line of white pebbles around the head might suggest a halo, but it seems unlikely that he should be so angry. Selene is noted for her biga rather than a quadriga, but the crescent of white stones about the driver's head might be appropriate to her. For Selene driving, see F. Brommer, *Arch. Anz.*, 1963, p. 686. She is related to caves, to the sea, and perhaps to Skylla (Graves, *op. cit.*, I, p. 310.) Phorbas, the driver of the mosaic quadriga at Pella, discussed below, is sometimes given as the father of Skylla (*ibid.*, II, p. 362.)

forward, holding reins in the right hand and extending the left arm (now missing in part); the head is shown in profile while the body turns toward the observer. A white line of pebbles terminating in a loop beneath the ear separates the red skull from the dark background. Taught structure beneath the carefully selected lines of the Ionic chiton reflect the intensity concentrated in the furrowed brow and dilated eye. Two lines along the upper lid and one at the lower, black pebbles at the outer corners of the eye and the forward vertical of the eyeball further emphasize the vehemence of the driver's concentration. Introduction of such emotional responses, associated with Parrhasios' innovations at the turn of the century, coincided with the popularity of perspective quadrigas in the late fifth and early fourth centuries B.C.

The horses (Pl. 24, top), bravely but not so surely drawn, share the driver's agitation as they charge in three-quarter diagonal. Round eyes pricked by black pupils and maddened by red dots, bulbous noses, loops of chests and rumps are modelled by flaccid lines in contrast to the sure definition of the human. The boundary of wedged manes strives for no illusion of flying hair; as in the charioteer's tight contour, no doubt is raised where the motif is terminated. Flying hoofs reach out across the center to link and relieve the white expanse of bodies.

Perspective devices, in a flat pattern across the animals, focus the wheel into sharp projection.¹⁷ The legs of the foremost pair are bent forward; the rear couple stretches back in flying gallop. By combining quadrated pose with extended, the mosaicist has created a free, logical area between the two pairs of legs in order to display the wheel and axle (Pl. 23). In more orthodox, single gaited quadrigas the wheel in three-quarter view becomes hopelessly entangled in legs unless it is crowded behind the horses or thrust so far forward the axle must break. At the same time, the split gait may well explain the charioteer's concern. The Peiraeus mosaicist, conscious at once of organic relationships and design in light and dark, must have searched carefully for a prototype which harmonized with his style. The stereotyped, ambivalent character of horses and depth suggests that the mosaicist's employer ordered a scene which the craftsman did not find altogether compatible; perhaps the owner of a first class bath house urged a fashionable motif upon an old fashioned craftsman.

Such perspective handling of chariot groups came into vogue in the last quarter of the fifth century.¹⁸ Fifth century horses are, however, usually leaner; flabbier

¹⁸ See C. Vermeule, "Chariot Groups in Fifth Century Greek Sculpture," J.H.S., LXXV,

¹⁶ See Rumpf, "Parrhasios," A.J.A., LV, 1951, pp. 1-12.

¹⁷ The drawing in Dragatsis, op. cit., fig. 2, does not show the axle or horses' legs complete, and the hind legs near this point indicate some restoration. But the axle itself seems to be of the same workmanship as the majority of the mosaic. Since the drawing is inaccurate on many counts, the axle may well be original; at any rate, the hub of the wheel, which establishes the perspective effect, is noted in Dragatsis' drawing.

proportions suggest the fourth. The Metropolitan Museum's silver phialai of the late fifth century 19 provide Ares' chariot with the unusual combination of rear legs found at Peiraeus.²⁰ The slender, horizontal horses, however, offer little resemblance to the well-fed diagonal creatures in the cave. Many Syracusan coin motifs of the late fifth century also involve lithe level beasts whose heads closely approach the profile or turn sharply for variety. The move toward diagonal is more readily traced in Kimon's mints; the confusion of legs occasionally results in positions which verge on the "split gait" of the Peiraeus mosaic.21 This combination of quadrated and flying gallop pose is seen more clearly in an apobates' grave stele from the Athenian agora,22 but the horses are again horizontal and leaner than the mosaicist's. The inscription, "Krates son of Heortios of Peiraeus" 28 relates this fourth century relief to the seaport, but two split gaits are hardly sufficient to establish a local style. The few examples of contrasting hind legs, notably a Bulgarian bowl of about 420 B.C.,24 the Eze bowls,25 and the Boston Museum chalcedony scaraboid of a biga from ca. 410 B.C., 26 cluster about the turn of the century. More instances of single animals in flying gallop and quadrated positions on the same work can be cited from this period.27

1955, pp. 104 ff. D. M. Robinson attributes the popularity of perspective quadrigas at this period to Zeuxis' painting of an apobates (Olynthus, V, p. 98).

¹⁹ G. Richter, "A Greek Silver Phiale in the Metropolitan Museum," A.J.A., XLV, 1941, pp. 363-389; "Greek Fifth Century Silverware and Later Imitations," A.J.A., LIV, 1950, pp. 357-370; "Calenian Pottery and Classical Greek Metalware," A.J.A., LXIII, 1959, pp. 241-249.

²⁰ A.J.A., XLV, 1941, p. 367, fig. 4 and A.J.A., LIV, 1950, p. 361, fig. 4.

²¹ Sicilian coins of Evainetos as well as Mikon approach this stance, as do those of Akragas. G. F. Hill, Coins of Ancient Sicily, Westminister, 1903, frontis., pl. 7, 15; B. Head, A Guide to the Principal Coins of the Greeks, London, 1932, pls. 65-67; A. Gallatin, Syracusan Dekadrachms of the Evainetos Type, Cambridge, 1930, fig. 44, b. Coins of a slightly earlier date divide the rear legs of walking horses into two categories, fore and back; see E. Boehringer, Münzen von Syrakus, 1929, pls. 1-31.

²² T. L. Shear, *Hesperia*, IV, 1935, p. 379, fig. 8. The apobates' stele is close to such reliefs as the Echeloos-Basile group from Peiraeus and others of the late fifth to early fourth centuries

B.C.; C. Vermeule, J.H.S., LXXV, 1955, p. 108.

²⁸ Shear, loc. cit.

²⁴ M. Rostovtzeff, *The Social and Economic History of the Hellenistic World*, Oxford, 1941, pl. 14, and B. Filow, "Grabhügelfunde aus Duvanli in Südbulgarien," *Jahrb.*, XLV, 1930, p. 287, fig. 7, pl. 8. The artist does not strive for perspective, yet the details of the drawing of the horses' haunches and chests of this and a companion piece from the same tomb (*ibid.*, pl. 9) are comparable to the Peiraeus lines. For epigraphical evidence of date, see *ibid.*, note 2, pp. 290-291.

²⁵ Richter, A.J.A., LIV, 1950, pp. 362 ff., figs. 5-6; also a Spanish phiale, *ibid.*, fig. 8. H.

Walters, Catalogue of Silver Plate in the British Museum, London, 1921, figs. 6 ff., nos. 8 ff.

²⁶ Beazley, Lewes House Collection of Ancient Gems, p. 52, pl. 4, no. 55; Vermeule, J.H.S., LXXV, 1955, p. 113, fig. 16.

²⁷ Combined gaits grouped are also to be found on the Capuan lekythos of Pelops and Hippodamia, in Berlin, Reinach, *Rep. Vases Peints*, I, p. 204; Calene phialai of the third century from imprints of the fifth century B.C., *A.J.A.*, XLV, 1941, p. 383, figs. 23-26, and a tetradrachm from

The sturdier proportions and vehemence of the Serangeion group are shared by the rearing creatures of the Louvre Melos amphora, from about 400 B.C.²⁸ Flaring nostrils and eyes vividly convey the tension for which the mosaicist strived, while chest and chin modelling, juncture of forelegs with body, chariot wheels and forebar closely parallel the plan of the mosaic. A neck amphora from Cumae,²⁹ also associated by Beazley with the Suessula Painter, involves less spirited horses in the two poses. Bulbous derivations whose draughtsmanship more closely approximates that of the Peiraeus quadriga continue for some time the more exaggerated polychromy of the Melos amphora.

An Attic bell krater of Herakles in Birmingham from about 370-360 B.C.³⁰ compares quite closely in charioteering with the mosaic, in concept if not in draughts-manship. A krater from Olynthos, perhaps from the second quarter of the fourth century,³¹ involves a comparable quadriga of greater vivacity and perspective than the mosaicist's; the charioteer's figure is, however, particularly close. Mid fourth century vases such as an Apulian krater from Ruvo in Karlsruhe ³² and the Aurora krater from Falerii ³³ also bear kinship, but the figures are more widely spaced. For, while Kertsch ³⁴ and Apulian vases of the mid and late fourth century carry the

Messena of a pair of mules, prior to 396 B.C., Hill, op. cit., pl. VIII, no. 14. The combined gait seems to be a logical extension of a normal walking position; see C.V.A., Italy, XI, Campano I, pl. 23, no. 3.

Single figures are posed in quadrated and flying gallop positions on a stele of Amazons found near the Academy in Athens (A.J.A., LXIII, 1959, p. 242, pl. 52, figs. 6, 7; Miss Richter compares the reliefs to Tarentine coins of 420-380 B.C.), friezes of the Heroon at Gjölbaschi-Trysa, Aristophanes' centaurs in the red-figured vase, Boston Museum of Fine Arts (about 400 B.C.), a volute krater from Numana in the Metropolitan Museum, 07.286.84 (Bothmer, Amazons, pp. 161-162; it is associated with the Painter of Woolly Satyrs, J. Beazley, Attic Red-Figure Vase Painters, Oxford, 1942, p. 427).

²⁸ Röm. Mitt., LII, 1937, pl. 48; E. Buschor, Griechische Vasen, Munich, 1940, fig. 258; M. Swindler, Ancient Painting, New Haven, 1929, fig. 468. Beazley, A.R.V., pp. 852-853, dates the vase late fifth to early fourth centuries and identifies it with the Suessula Painter. W. Kraiker, Die Malerei der Griechen, Stuttgart, 1958, p. 162, does not attribute the amphora to the Suessula Painter and places it in the first or second decade of the fourth century.

²⁹ Naples R. C. 160, *Mon. Ant.*, XXII, 1913, pl. 92. This time the horses horizontal, and not as bulbous. Another vase in Naples, no. 146740, attributed by some to the Suessula Painter (*Not. Sc.*, XIII, 1935, p. 262, pl. 15, 4) also involves rearing chargers carrying a Nike and a goddess.

³⁰ Birmingham City Art Gallery 1620/85; T. Webster, Art and Literature in Fourth Century Athens, 1956, pl. 4a.

³¹ Olynthus, V, pp. 96-99, pls. 68, 69, 70. A coarser quadriga from shortly before the city's fall (Olynthus, XIII, pls. 67, 68, 69) reflects the same general type.

³² C.V.A., Germany, VIII, Karlsruhe, II, 1952, pls. 62-64, "A.P." style, down to the mid-fourth century B.C.

³⁸ R. Bloch, Etruscan Art, 1959, pl. 71, ca. 350 B.C.; C.V.A., Italy, I, Villa Giulia, I, pls. 5, 6, 7. Faliscan volute krater no. 2491; Cephalus and Aurora.

³⁴ Quadriga driven by Eros, by the Xenophantes Painter, Kertsch vase ca. 355 B.C., Richter and Hall, Red-Figured Athenian Vases in the Met. Mus. Art, 1936, no. 172, pl. 167. Late Kertsch pelike, C.V.A., Poland, III, Varsovie coll., Choynowski, Class III, Ie, pl. 1, no. 21.

exaggerated eyeballs, looping contours and colored bridle accessories of the mosaic to an extreme of violent angles, lucid outlines are generally preferred to perspective confusion after the mid-fourth century B.C. The heads of the handsome calligraphic creatures of the Nikomachos group, about 340 B.C., form distinct units separate from the body mass. The determined clarity of the Halikarnassos frieze, which seems to have revived the popularity of flying gallops and profiles in the mid-fourth century, for contrasts with the determined complication of the Peiraeus floor, executed in a medium for which profile clarity had been the rule. It seems unlikely that the bath house proprietor would have wished to be out of date by emphasizing perspective when its use was out of vogue. On the other hand, the closest parallels to the contorted eyebrows of the charioteer seem to be found in the second half of the fourth century, notably in the vase portraits of the Volaterrae Group by the Hesione and Nun Painters.

The discovery of another pebble mosaic quadriga at Pella in 1961 ³⁹ affords a close parallel in positions as well as technique, although the style is quite different. As in Peiraeus, two horses' legs are bent while two are straight, but positions alternate for greater diversity. The horses are more widely spaced; their leaner bodies extend horizontally. Filaments from tails infiltrate the background, and a single arc suggests the perspective of chariot behind. Phorbas, the muscular driver identified by an

³⁵ C.V.A., Paris, Bib. Nat., II, Hf, pl. 91, 3, 4, 7, here dated ca. 336-335. Beazley, A.J.A., XLVII, 1943, p. 459, places it with the archon Nikomachos' group of 341/340 B.c.

³⁶ Sidney Markman, *The Horse in Greek Art*, Baltimore, 1943, pp. 95-96 and *passim*. The author emphasizes the novelty of extended rear legs in the Halikarnassos frieze and distinguishes the pose from the flying gallop, but several examples cited in note 27 provide the transition, as well as reliefs from the Temple of Bassae and the Nereid Monument from Xanthos, the Pelops and Hippodamia by a contemporary of the Meidias Painter (Buschor, *op. cit.*, fig. 208; Beazley, *A.R.V.*, p. 793 lists in the manner of the Dinos Painter) and many other examples.

³⁷ G. Hanfmann, J.H.S., LXV, 1945, pp. 45 ff., notes that clarity tended to succeed complication in the fourth century prior to greater involvement of the early Hellenistic period.

The leaping horses of the Halikarnassos frieze resemble the Peiraeus group in rounded nose and mouth structure, protuberances before the fore legs and thigh juncture, but overlapping is discarded. A carnelian scaraboid in the Metropolitan Museum (G. Richter, Catalogue of Engraved Gems, Rome, 1956, pl. 17, no. 98) shows the characteristic clear profile in flying gallop of the second half of the fourth century B.C. I have found no examples of quadrated and flying poses combined during the late fourth century; a few occur on Sicilian coins of the third, but forelegs cut across the rear in a different manner. See B. Head, "On the Chronological Sequence of the Coins of Syracuse," Num. Chron., N.S., XIV, 3, 1874, pl. 10 (Hiketas coin, 287-278 B.C.), pl. 11 (Hieron II).

³⁸ T. Dohrn, Röm. Mitt., LII, 1937, pp. 183-184, pl. 28, 1, 2. He dates them in the second half of the fourth century. See also Beazley, Etruscan Vase Painting, Oxford, 1947, pp. 122-124, pl. 27, 1, pl. 29, 5-6 (terminus of type 217 B.C.).

³⁹ X. I. Makaronas, Δελτ., XVII, 2, 1961/2, Χρον. pp. 212-213, pl. 241; P. Petsas, "Ten Years at Pella," *Archaeology*, XVII, 1964, pp. 74-84, fig. 8, pl. 80; *B.C.H.*, LXXXVI, 1962, p. 805, pls. XXXV-XXXXVI.

inscription, now twists backward to watch the abduction of Helen, yet neither driver nor steeds seem agitated. Internal modelling, more complex than in the Peiraeus group, is accomplished at Pella by subtle color modulations which break with the stern contours of vase painting tradition. Assigned to about 300 B.C., or early third century, Phorbas' quadriga would seem to represent a later stage of development of the mosaic technique than the Serangeion floor.

Of the seventy-odd decorated pebble mosaics so far discovered, figured scenes cluster largely about the fifth, fourth, and occasionally the third centuries B.C.⁴⁰ Floors from Olynthos, dated before its destruction in 348 B.C.,⁴¹ and from Sikyon seem to form the closest parallels to the Peiraeus panel. The griffons and horse in the Corinth Museum, found in fifth century fill,⁴² were laid in long thin pebbles (averaging 0.75 cm. by 1.25 cm.), more tightly packed (about 150 pebbles per square cm.) than the rounded stones of the Serangeion quadriga. The Sikyon floors, however, compare closely in technique with the Peiraeus pavement with rounded, natural stones, averaging 1-1.5 cm., evenly laid about 100 per 10 square cm.

The breezy centaurs,⁴³ running animals,⁴⁴ and leaping (?) figure ⁴⁵ from Sikyon form, like the Peiraeus group, compact masses judiciously placed in relation to background voids. The Sikyon creatures, however, smaller in scale and less elaborate, pursue their course with lean vitality. In contrast to the static repetition of the Serangeion horses, each centaur assumes a different flying gallop pose contracting into a wide variety of contour lines; subtle modelling distinguishes flying horse from deer. As in the Bellerophon tondo from Olynthos,⁴⁶ strands of hair, mane and tail

⁴⁰ Lists: Fr. von Lorentz, Röm. Mitt., LII, 1937, pp. 166-170; M. Blake, M.A.A.R., VIII, 1930, pp. 68-70; R. P. Hinks, Catalogue of Greek Etruscan and Roman Paintings and Mosaics, London, 1933, p. xliv; D. M. Robinson, Olynthus, XII, 1946, pp. 323 ff.; Brown, Ptolemaic Paintings and Mosaics, 1957, pp. 77 ff.

The ancestry of pebble mosaics has been gradually pushed back in recent years. The Helladic relationship of pebbles to graves provides food for thought as to their origins (G. Mylonas, Ancient Mycenae, Princeton, 1957, pp. 122, 125). Pebble mosaics of the eighth century B.c. found at Gordion open new vistas on the subject; R. Young, "Discoveries at Gordion, 1956," Archaeology, IX, 1956, p. 264.

⁴¹ See Robinson, Olynthus, XII, pp. 344, 365, for late fifth century dating of the mosaics from the Villa of Good Fortune on the basis of style and decoration. Carpenter equates their prototype with the late fifth century (A.J.A., LIV, 1950, p. 324). C. Picard prefers a fourth century dating largely for iconographic reasons; Rev. Arch., XL, 1952, pp. 77-79.

⁴² T. L. Shear, A.J.A., XLI, 1937, p. 547. Found in the fifth century fill of the early fourth century agora. Most of the horse's head as it now stands is restored.

48 A. Orlandos, Практіка́, 1938, p. 122, fig. 3; J.H.S., LIX, 1939, pl. 13, d.

⁴⁴ Orlandos, Πρακτικά, 1936, p. 94, fig. 8 (deer and horse); Πρακτικά, 1935, p. 82, figs. 15, 16 (head of deer, rear of beast).

⁴⁵ Orlandos, Πρακτικά, 1936, p. 94, fig. 9.

⁴⁶ Robinson, Olynthus, V, p. 5, note 12, pp. 54 ff., pls. 1, 12, 13a. The excavator places Block VI, which includes the Bellerophon mosaic, in the early fourth century B.c. (*ibid.*, p. 14), and suggests the motif came from Corinthian coins brought by the Potidaeans. Fourth century parallels

fly into space in contrast to the hard boundary line of the Peiraeus horses. The Sikyon figures have been dated on stylistic grounds from the late fifth to the early fourth century B.C.⁴⁷ While draughtsmanship suggests an earlier date than the quadriga mosaic, a lively definition of eyes complete with upper eyelid and focusing pupil (again varied) creates meaningful facial expression for the centaurs. The Sikyon boy with arm extended, a black profile on white ground rather than the normal light on dark, wears a red cap (of hair?) similar to the Peiraeus driver's, save that the charioteer's is accented by a white outline and terminates in a loop below the ear. The expressionless Sikyon face, however, like the comparable Achilles in the mosaic from Olynthos,⁴⁸ is animated only by a dot of eye and a few stones of placid eyebrow rather than involved eyelids and pupil. The poise of Achilles and the Sikyon boy and succinct modelling of the Nereids' garments in Olynthos ⁴⁹ might roughly be compared to the Serangeion figure in structure and drapery definition, though the Nereids are freer in outline, less calculated and compact.

The larger Peiraeus pavement, with its greater involvement in perspective and emotion, its greater formalization, would seem somewhat later in draughtsmanship than the Olynthos floors. Dionysos' panther team in Olynthos floors bounds forward in profile; its flying gallop is rendered with no attempt at perspective. Dionysos' red reins, however, compare with the coloring of accessories in the Serangeion quadriga, while colored pebbles scattered through the Olynthos backgrounds suggest later atmospheric illusionism. The enclosed areas and lines of contrasting shade in the Peiraeus hark back to a more conservative color tradition of fifth century vases; only red dots in the corners of the horses' eyes there break into the suggestion of light effects. Perhaps northern workshops were more concerned with color than the mosaicists of form-based Athens.

are cited by P. Amandry, *Rev. Arch.*, series 6, XLVIII, 1956, pp. 155-161. In the reproduction of the mosaic, now in the Baltimore Museum of Art, the stones are more loosely set (ca. 50-75 per 100 cm.) than in either the Sikyon or the Peiraeus mosaics. The Olynthos steed involves greater textual illusion and spatial extension than the Sikyon figures.

- ⁴⁷ Orlandos, Πρακτικά, 1938, p. 123. The excavator here revises his earlier dating of fourth to third centuries.
- ⁴⁸ Olynthus, XII, pl. 3, the Achilles and Thetis panel from the Villa of Good Fortune, built ca. 430-420 B.c. and in use until 348 B.c. (*ibid.* p. 343).
- ⁴⁹ *Ibid.*, pl. 3. Note particularly the chiton of the Nereid seated on a sea horse at the far right of the Achilles and Thetis panel. See also *Olynthus*, V, pl. 2, Nereids with sea animals from House A, VI, 1, particularly the figure on a dolphin.
 - ⁵⁰ Olynthus, XII, pp. 344-345, pl. 1.
- ⁵¹ Lack of perspective might also, of course, suggest a mid fourth century style, but the destruction of Olynthos in 348 B.c. would require fairly rapid assimilation of the new profile manner.
- ⁵² Olynthus, XII, pp. 345, 364, pls. 1, 2, 3. Yellow and green stones enliven areas behind Dionysos and Achilles. See also Olynthus, V, p. 4, pl. 8, for comparable treatment in the House of the Comedian.
 - 58 The Sikyon mosaicist's use of color is more restricted than that of the Serangeion artist,

The varied polychromy of the Palatitsa fish-tailed women ⁵⁴ and the Dyrrachium head ⁵⁵ lead more directly than the hint of illusionism at Olynthos to the recently discovered pavements at Pella. ⁵⁶ Tentatively dated about 300 B.C., the pebble mosaics of Alexander's capital replace background voids by suggestion of locale. Cascades of color on the Pella Herakles' coat and the ground beneath his feet open the earlier enclosed units of solid tone; broad areas of shading replace purely linear definitions of form. Narrow strips of lead around the figures and in textured hair provide a definitive break with the pebble purists, who searched for stones the same size to make the surface uniform, a break with the tradition to which the Serangeion mosaicist adheres.

The chariot scene in Pella associated with the Abduction of Helen provides at once a link and a break with the pebble mosaic tradition of Peiraeus. With the stag hunt and Amazonomachy, also from the North House, Block 5, it has been dated slightly later than Herakles and Dionysos, about 300 B.C. or in the early third century. No better indication of a fourth century date for the Peiraeus pavement could be found, unless the Macedonian style of the period differs radically from Attic. The impetus toward representation which converted lines into shadows and tones was heralded by eye accents and definition of horses' muscles in the Peiraeus mosaic, but the few touches of color in reins and cap did not impinge upon the vase painter's balance between light and dark. In the Pella mosaics, light figures are still silhouetted against a dark background, but focus upon details within the figures (even Dionysos' toenails are shown) and extrusive elements, such as the strands of horses' tails, deliberately challenge the dominance of negative space patterns. The Serangeion mosaicist struggled to reconcile the opposing forces of perspective definition, emotional involvement, and the flat design function of a pavement; perspective and emotional expression no longer constitute a challenge or an obstacle to the mosaicist of the Abduction scene. He feels free to suggest perspective rather than define it, to use stock positions to reflect perturbation. While the Peiraeus mosaicist linked driver and

although spots on the horse's mane (Πρακτικά, 1936, fig. 8, p. 94) indicate an awareness of atmosphere.

 54 A.J.A., LXI, 1957, pp. 284-285, figs. 14, 15, 16; B.C.H., LXXXI, 1957, figs. 10-12, p. 603; B.C.H., LXXIX, 1955, p. 279.

⁵⁵ C. Praschniker, *Jahresh.*, XXI/XXII, 1922-1924, pp. 203-214, fig. 122. Praschniker places it somewhat later than 300 B.C. on the basis of parallels with late fourth century Apulian vase paintings, but recent opinion allows less time differential between models and mosaics.

⁵⁶ P. Petsas, Archaeology, XI, 1958, pp. 249-253. Petsas suggests a date in the last quarter of the fourth century B.C. for the first discoveries. Vanderpool, A.J.A., LXII, 1958, p. 324, dates about 300 B.C. M. Robertson, Greek Painting, 1959, color pls. 63, 64. X. I. Makaronas, Δελτ., XVI, 1960, pp. 72-83, pls. 40 ff. (p. 75 for smaller stones than Sikyon mosaics, pl. 42 toenail of Dionysos); Δελτ., XVII, 2, pp. 212-213, pls. 241-249; P. Petsas, Archaeology, XVII, 1964, pp. 74-84, pls. 78-81; Vanderpool, A.J.A., LVI, 1962, p. 390, pls. 109, 110 (Gnosis signature p. 390, pl. 109); Hood, J.H.S., LXXXII, 1962, Arch. Repts., p. 15, figs. 17-19.

horses by a common intensity, each element of the Abduction composition is treated with a measure of independence. The charioteer Phorbas turns easily to watch Theseus snatching Helen from the gesticulating Deïaneira, but his face is relatively unclouded by the harrowing scene behind, and his horses are intent only upon proceeding. The athletic Phorbas, like the graceful Dionysos discovered earlier, is magnificently rendered, but the melodramatic responses of other figures seem crystallized. The acceptance of a mosaic as a work of art rather than a pavement is reflected in the signature of the mosaicist Gnosis on the near-by stag hunt (the earliest signed mosaic discovered, to my knowledge). The slightly perfunctory character of some of the draughtmanship may be due in part to limitations of the pebble mosaic technique; the mosaicist is motivated to move on to a new technique more adaptable to recording the visual image. Impatience with the restrictions of pebbles is reflected not only by the use of metal strips, but also, in the Dionysos panel, by a wider spacing of smaller stones.

The addition of cut stones to the pebbles of the Olympia mosaic ⁵⁷ marks the advent of a new chapter in mosaic history. Concern with color and light evidenced in the Macedonian floors here combined with the verve which animates the Peiraeus charioteer. Pictorial effect provided the criterion used to choose stones, whose pitiful remainder range from about 0.5 to 2.5 cm., within a looser setting than the Sikyon or Peiraeus mosaics. The advent of tesselated mosaics by the second quarter of the third century B.C.⁵⁸ does not immediately eliminate the use of pebbles, but the precise compact handling of the Peiraeus mosaic is nowhere in evidence among the few provincial survivals of the old technique. A pavement in Alexandria ⁵⁹ reflects in coarse style and disintegrated figures, unredeemed by the barbarity of the Urla mosaics in the Izmir Museum, ⁶⁰ the Pella technique of enclosing lead strips. The Egyptian floor may date any time after the founding of the city in 322/321 B.C., ⁶¹ but even if it comes from the second century B.C. to the first century A.D., with a mosaic from Shatby ⁶²

⁵⁷ A Blouet, Expedition Scientifique de Morée, I, Paris, 1831, pls. 63, 64; W. Dörpfeld, Curtius and Adler, Olympia, II, 1892, pp. 10, 180 ff., pl. CV. Only a few scattered pebbles of the lively triton photographed still remain in the pronaos of the Temple of Zeus. Normally dated fourth to third century (M. Blake, M.A.A.R., VIII, 1930, p. 70).

⁵⁸ K. Phillips, "Subject and Technique in Hellenistic-Roman Mosaics; A Ganymede Mosaic from Sicily," *Art Bull.*, XLII, 1960, p. 243, pp. 245 ff. The discovery of tesselated mosaics of 260-250 B.c. fortifies previous suggestions that they may have been introduced in Sicily.

⁵⁹ Greco-Roman Museum 11125. Warrior, largely pebbles. Brown, op. cit., pl. 44, 2, p. 69, no. 51, pp. 81-82.

⁶⁰ These do not seem to have penetrated the literature on pebble mosaics. Izmir Museum Inv. 1545, a nude horseback rider brandishing a sword (?). Inv. 1546, a running beast (dog ?). White, black, orange and yellow pebbles in red cement, coarse style. My memory correlates them with the Alexandrian photographs; the horse, however, appeared more coordinated.

⁶¹ Phillips, op. cit., p. 250, suggests a date of late fourth to early third century B.C. rather than first century B.C.

⁶² Alexandria, Greco-Roman Museum 21643. Erotes and stag. Brown, op. cit., pl. 44, 1, p. 68,

in which pebbles function in hair and details, a stylistic gap separates the mosaic from the Peiraeus quadriga, and the Egyptian floors cannot be used to bolster the Roman date originally assigned to the Serangeion mosaic.⁶³ Although chariots in silhouette are favored by the Romans, the tesselated groups, black on white,⁶⁴ operate in extensible space rather than in tight classical composition.

While the illusion of depth and emotional involvement, which was to figure so prominently in the elaborate Hellenistic mosaics of tiny cut stones at Pergamon, ⁶⁵ Delos, ⁶⁶ Corinth, ⁶⁷ and the Pompeian Battle of Issos, ⁶⁸ was first, to my knowledge, conceived as suitable for a floor in the Peiraeus mosaic, the tight draughtsmanship of the Serangeion floor is based upon painting of the early fourth century, its careful workmanship upon the pebble mosaic tradition of the fifth to early fourth centuries B.C. The quadriga may well have decorated the Serangeion bath at the time of its sale about 376 B.C., or it may have been added by Aristolochos in a new expansion shortly thereafter.

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no. 50, pp. 77-78 (first century B.C. to first century A.D.). Phillips, op. cit., pp. 250-251 (second century B.C. a possibility).

68 Dragatsis, op. cit., p. 6. These are the only figured pebble mosaics of a possible Roman date with which I am familiar. The Chersonese mosaic of a man and woman by a wash basin (G. Belov, Materealy i Issledovannia po Arkheologii S.S.S.R., XXXIV, 1953, color pl. after p. 282, pls. 4, 5) is assigned to Hellenistic times (ibid., pp. 279 ff.). Floral motifs have been laid in pebbles from Roman times to the present. A "kind of honeysuckle" from the Roman period in the Royal Gardens in Athens is made up of heterogeneous stones, many under 0.5 cm. in size, loosely floated in cement ca. 50-75 per 10 square cm. See C. Smith, B.S.A., III, 1896-1897, p. 184 and Blake, op. cit., p. 70. Smith showed remarkable perception of the place of pebble mosaics at a time when very few had been discovered. Modern mosaics are also usually disperse in comparison to the tight packing of classical stones, although the huge stones of the pavement in front of the Tinos church produce the compact effect of the ancient.

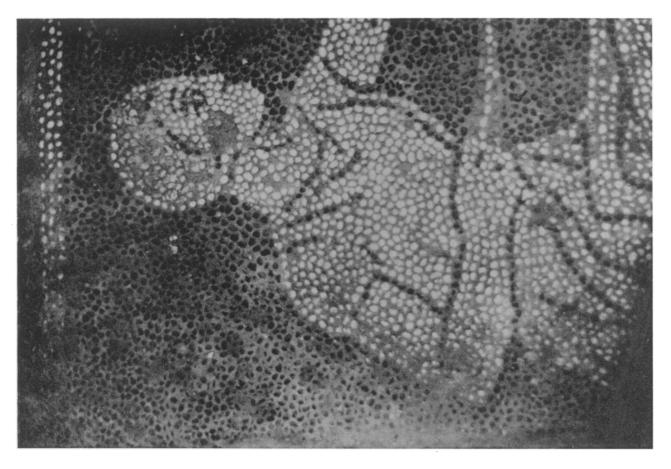
⁶⁴ For instance, mosaics from Pompeii and Ostia in the Vatican and Terme Museums, Blake, M.A.A.R., VIII, 1930, pls. 48, 49; XIII, 1936, pls. 33-39, 46.

65 T. Wiegand, Altertümer von Pergamon, V, 1, pls. 27-38; Brown, op. cit., p. 73; Phillips, op. cit., pp. 251 ff.

⁶⁶ M. Bulard, "Peintures Murales et Mosaiques de Délos," Mon. Piot, XIV, 1908; Phillips, op. cit., p. 252. The delicate Hellenistic tesselated mosaic of a Panathenaic amphora (Smith, B.S.A., III, 1896-1897, pp. 182 ff.; Bulard, op. cit., pl. 10, a) forms an illuminating contrast with the Serangeion mosaic. The quadriga of galloping horses in silhouette is now rounded by highlight and perspective in illusionist approach.

⁶⁷ T. Shear, A.J.A., XXIX, 1925, pp. 391-396, figs. 9-12; Phillips, op. cit., p. 252.

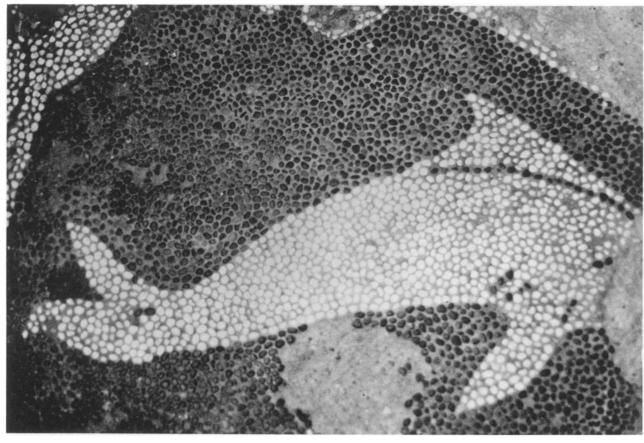
68 H. Fuhrmann, Philoxenos von Eretria, 1931.





M. KATHERINE DONALDSON: A PEBBLE MOSAIC IN PERAEUS





M. Katherine Donaldson: A Pebble Mosaic in Peiraeus