

Toys as Cultural Artefacts in Ancient Greece, Etruria, and Rome

Véronique Dasen & Marco Vespa (eds)

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75

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Bronze statuette of a male youth with spinning top (H. 36 cm), from Coll. Loeb,
350-325 BCE, Staatliche Antikensammlungen Munich, inv. SL 25.

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■
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'Playing' with Stones. Stone Pebbles in the Greek World: Game Pieces, Tools, or Ritual Objects?

INTRODUCTION

The present contribution draws its inspiration from an intriguing study that I have recently completed concerning stone pendants in elite sub-adult tombs in Greek Sicily.¹ I suggested that these artefacts, sometimes belonging to the Early Bronze Age (Castelluccio culture), were worn as apotropaic amulets by newborns, babies, and children between the 7th and 6th century BCE. These Castelluccian stone beads and pendants are unlikely to have been handed down from the Early Bronze Age. Consequently, we can argue that, after being accidentally discovered in ancient tombs during the Archaic Period, they may have been recognized as ancient, and therefore deemed particularly valuable, also due to the intrinsic properties of the stones, often shiny and translucent.

Since then, I have noticed the occurrence of stone pebbles and flat stones in funerary assemblages both in Greece and Western Greece. Therefore, I started collecting data to understand whether these artefacts shared the same purpose as the amulets but were carried and displayed in other ways (presumably inside pouches or net bags), or whether they had a completely different function.²

This paper presents some preliminary notes about this category of material which has long suffered from a lack of attention. Despite being humble and easily available, stone pebbles might have played specific cultural roles in the Greek world.

1. THE ARCHAEOLOGICAL DATA

The preliminary data I have gathered so far enables us to distinguish at least two different groups of stone pebbles and flat stones. They come from either burials or religious spaces.

1.1. Plain Stone Pebbles

The first group consists of plain stone pebbles and stones with flattened surfaces and different in size, weight, and colour, deposited either alone or in groups. Pebbles like these, neither carved nor smoothed, have been discovered in sacred areas as well as in tombs of Greece, Magna Graecia, and Sicily dating from the Protogeometric Period and later.

A Late Protogeometric cist tomb, uncovered in 1955 nearby the so-called Mycenaean House of the Sphinxes in Mycenae, contained the skeleton of a child, laid in a crouched position, with a rich funerary assemblage. An amphora contained a set of 24 pebbles, one (diam. ca. 4.5 cm) considerably

¹ LAMBRUGO (2020).

² My deepest gratitude to Véronique Dasen, Henri Duday, Clemente Marconi, Reine-Marie Bérard, Kyriaky Katsarella and Vicky Sabetai, for sharing data and ideas about this intriguing topic. This paper was

elaborated thanks to a scientific exchange stay at Fribourg University supported by the Swiss National Science Foundation (SNSF) and part of the ERC AdG Locus Ludi Research Programme.

larger than the rest (diam. ca. 1.5 cm) (fig. 1). The smaller stones are roughly circular, whereas the large one is flatter.³ Grave 6 in the Rundbau burial ground in the Kerameikos cemetery of Athens is a large but partially preserved shaft, dating from the last quarter of the 8th century BCE. The dating of this grave is based on a footed cup, which was the only vessel recovered from the burial, along with 20 (?) stone pebbles whose variety in colours, shape, and size is worth pointing out (fig. 2). An amphora with a painted decoration representing a man and a horse is now recognized as the *sema* of the tomb. According to the excavators, the scant skeletal remains may have belonged to a child or a sub-adult individual.⁴

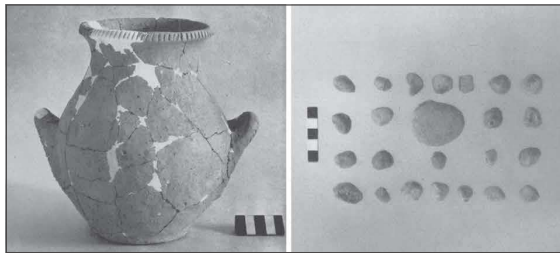


Fig. 1: Late Protogeometric cist tomb, from the so-called House of Sphinxes at Mycenae. Photo after Desborough (1956).

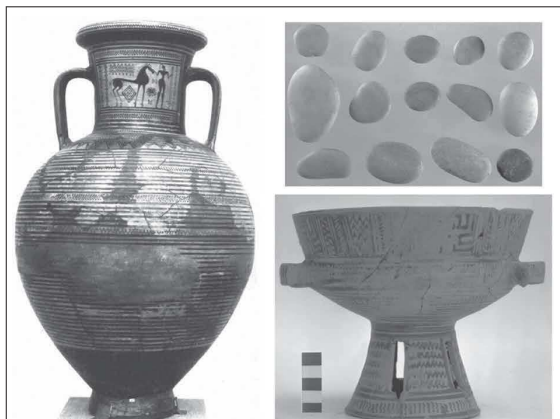


Fig. 2: Kerameikos Grave Rb 6, Athens, last quarter 8th cent. BCE. Photo after D'Onofrio (2017), 265, figs. 24.7-9.

Single and multiple stone pebbles are also recorded in tombs in Greek Sicily. Tomb Z 24 in the Megara Hyblaea South necropolis⁵ is a multiple inhumation of at least six sub-adult individuals in a lithic sarcophagus which was reopened and reused several times between 640 and 580 BCE. The abundant and exquisite grave goods include a single white

3 DESBOROUGH (1956), 129-130.

4 D'ONOFRIO (2017), 263-265. See also KNIGGE (1980), 77.

5 It is worth reminding that several funerary spaces have been discovered at Mégara Hyblaea: the West necropolis was explored by Paolo Orsi between 1889 and 1892, for a total of over 800 tombs, mostly remained unpublished, except for the first 300 ca. edited in CAVALLARI, ORSI (1890). The South necropolis, which has been investigated since 1947, is now published in DUDAY, GRAS (2018). Finally, the North necropolis (c/o RIASOM), with a smaller number of tombs, excavated between 1954 and 1957, was preliminary described in GENTILI (1954).

pebble.⁶ Nine stone pebbles, some made of limestone and some of quartz, were also discovered by Paolo Orsi in the right hand of an adult from a multiple inhumation in an enormous lithic sarcophagus in the Fusco Necropolis in Syracuse (tomb 450), dating from between the end of the 7th and the beginning of the 6th century BCE.⁷ Moreover, two tombs from the Contrada Pezzino Necropolis in Agrakas are worth mentioning. Both of them are inhumations, but we do not know whether they belong to adults or sub-adults. Tomb 1116, dating from the second half of the 6th century BCE, contains a large set of Corinthian *pyxides* and *kotyliskoi*, a female clay figurine, and 25 stone pebbles of various colours (fig. 3).⁸ Tomb 1181, which is slightly more recent (first half of the 5th cent. BCE), contained two large pebbles of different dimensions and colour among the grave goods (fig. 3).⁹

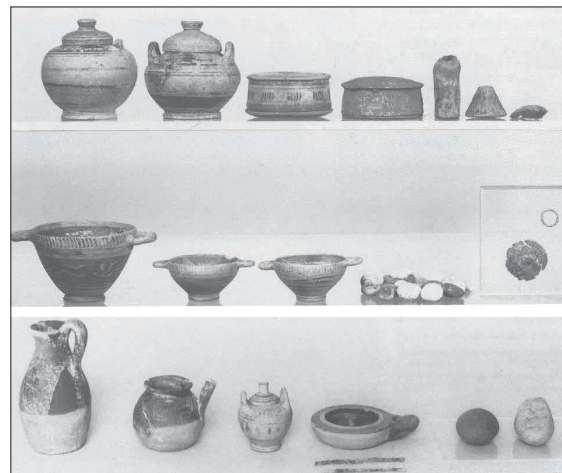


Fig. 3: Tomb 1116, from Contrada Pezzino cemetery, Agrakas, second half 6th cent. BCE (above); Tomb 1181, from Contrada Pezzino cemetery, Agrakas, first half 5th cent. BCE (below). Photo after De Miro (1989), pl. XII, XLIV.

Pebbles, deposited either alone or in groups, were also found in burials in Magna Graecia. Five stone pebbles are recorded in a late-4th to mid-3rd century BCE burial (tomb 29) at Muro Tenente (Messapia) containing the skeleton of a young female adult buried with black-glaze pottery, the aforementioned pebbles, and some knucklebones. It is worth pointing out that the deceased was holding three of the pebbles in her right hand, while the other two were discovered near the left hand.¹⁰ A single sandstone pebble comes from tomb 2 at Sant'Angelo Vecchio in the *chora* of Metaponto. This burial belongs to a

6 Ca. 3 x 2.7 x 2.3 cm. DUDAY, GRAS (2018), 34-42.

7 ORSI (1895), 176-177; unfortunately, the stone pebbles are not preserved.

8 *Veder greco ad Agrigento* (1988), 293; DE MIRO (1989), 32, pl. XII.

9 *Veder greco ad Agrigento* (1988), 371; DE MIRO (1989), 54, pl. XLIV.

10 TETTEROO, WAAGEN (2010), 138-140.

young adult male (ca. 25 years old), and dates to the middle of the 5th century BCE based on the analysis of a black glaze amphora uncovered inside the *Carparo* sarcophagus.¹¹ The data from sanctuaries and sacred areas, equally rich and promising, will be discussed further on.¹²

1.2. Stone Spheres

The second group consists of roughly spherical stones, often (but not always) of similar dimensions (diam max. 2 cm) and weight, usually deposited in tombs in multiple sets. The lithic material of which they are made is sometimes a more precious stone, such as translucent calcite or Cycladic marble, which required a greater effort to be obtained and more sophisticated skills to be shaped and polished.

Striking examples come from many Greek necropoleis in Sicily, such as the ones in Megara Hyblaea, Syracuse, and Himera. Tomb Z 67A, from the Settole Cimiteria (6th cent. BCE), in the South necropolis of Megara Hyblaea, is an infant *enchytrismos* in a Corinthian amphora. The funerary assemblage consists of a Corinthian *kotyliskos* and three stone spheres (fig. 4a).¹³ Reine-Marie Bérard, while studying the funerary rituals of this necropolis,

also noticed these specific artefacts¹⁴ and provided a chart (fig. 4b) presenting the weight and dimensions of each object, which proved to be consistent for the whole set.

Tomb Z 124,¹⁵ in the same Settole Cimiteria, dating to the second half of the 7th century BCE, yielded the inhumed remains of at least five sub-adults. The anthropological analysis has revealed that two of them were newborns, the third was one to three years old, the fourth was nine to twelve, and the last was a twelve to fifteen-year-old adolescent. The grave goods are very rich and include bronze ornaments, wide sets of ceramic vessels among which are Corinthian unguent vases and drinking cups, and an Etruscan bucchero *kantharos* (fig. 5). Particularly outstanding is a series of twelve ovoid and spherical stone pieces of similar colour but slightly different dimensions and weight (fig. 4b). Lab analyses show that the stone pieces are all made of the same “*calcite pure d’origine géologique*”,¹⁶ a very hard, translucent, and birefringent material, which had to be carved and smoothed to obtain the planned shape. These analyses, carried out at the same time by the *Centre de recherche interdisciplinaire d’archéologique analytique de Bordeaux* and the *Institut Géologique Albert de Lapparent de Paris*, have outlined that this kind of lithic material is only available in two areas of Sicily, far apart from each other and even farther from Megara Hyblaea, the Licodia Eubea district, and the area of Capo Passero.

11 SILVESTRELLI, EDLUND-BERRY (2016), 113-114.

12 See *infra* § 2.3.

13 DUDAY, GRAS (2018), 99.

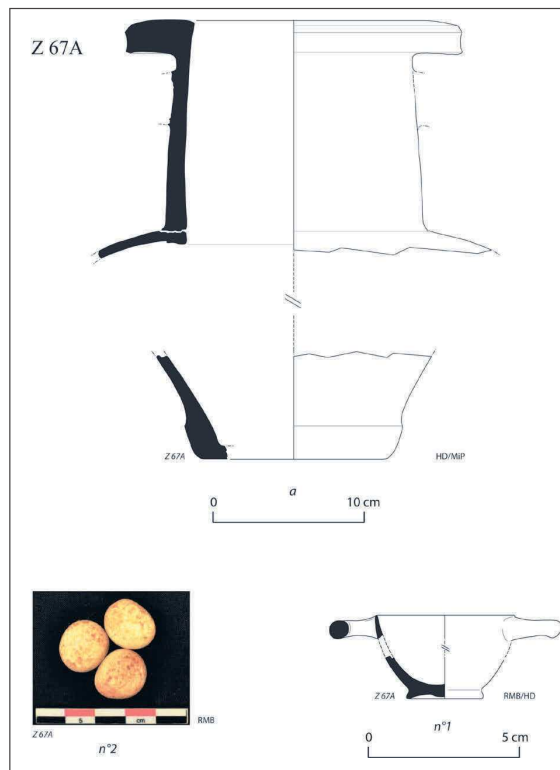


Fig. 4a: Tomb Z 67A, from Megara Hyblaea, South cemetery, Settole Cimiteria, 6th cent. BCE. Syracuse, Museo Archeologico Regionale “Paolo Orsi”. Photo after Duday, Gras (2018).

14 BÉRARD (2017), 240-243.

15 DUDAY, GRAS (2018), 123-130.

16 BÉRARD (2017), 243.

Tombe	Poids (g)	Longueur max (mm)	Largeur max (mm)
Z 67	5	17,1	12,8
Z 67	5,3	17,4	14,2
Z 67	5,6	18	14,8
Z 124	3,4	15,7	14,8
Z 124	3,9	17,5	13,1
Z 124	4,4	17,6	15,7
Z 124	4,5	17,2	15,5
Z 124	5,7	20,3	14,3
Z 124	6,4	18,7	17
Z 124	6,7	19,8	17,2
Z 124	7,8	18,6	17,7
Z 124	8,7	22,7	17,6
Z 124	10,1	22,8	21,9
Z 124	10,8	25,1	18,5

Fig. 4b: Chart presenting the weight and the dimensions of globules in tombs from Megara Hyblaea, South cemetery. Chart after Bérard (2017), 242, pl. 82.

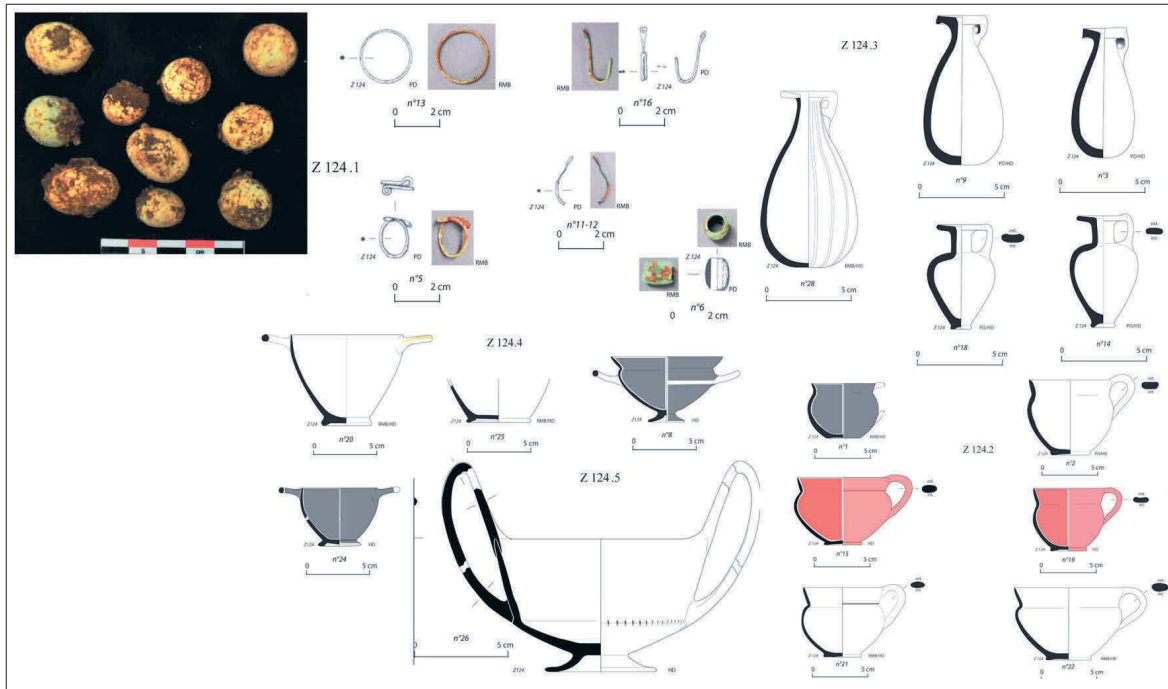


Fig. 5: Tomb Z 124, from Megara Hyblaea, South cemetery, Settoe Cimiteria, second half of the 7th cent. BCE. Syracuse, Museo Archeologico Regionale “Paolo Orsi”. Photo after Duday, Gras (2018).

Tomb 768 from the West necropolis of Megara Hyblaea, for which only a preliminary report is available,¹⁷ is also noteworthy. This burial, discovered in 1892, is described as a multiple inhumation in a sarcophagus, but we do not have any osteological analysis providing us with high-quality data concerning the number and age of the deceased. We can only rely on the excavator’s notes reporting the presence of four individuals, three of whom may have been sub-adults. The funerary assemblage consists of several vessels and metal (bronze, lead) and bone ornaments. There were also four small Parian marble spheres found under the elder sub-adult’s skull, as well as fifteen pebbles laid in a corner of the sarcophagus.¹⁸

Also worth mentioning is an *enchytrismos*, tomb 179, from the Fusco necropolis in Syracuse, containing the skeleton of a young child (“*scheletro di fanciullo di pochi anni*”).¹⁹ The funerary assemblage includes an Ionian cup, seven shells, two bone ax-shaped amulets, a bronze ring, and five smooth spherical pebbles (fig. 6). The tomb dates to the 6th century BCE.

17 CARUSO (1892), 278.

18 I am particularly grateful to Dr. Giuseppina Monterosso (Syracuse, Museo Archeologico Regionale “Paolo Orsi”) and to Dr. Reine-Marie Bérard (CNRS, Centre Camille Jullian, Aix-en-Provence) for helping me search the grave goods from this tomb. Unfortunately, at a careful check in the storerooms of the Syracuse Museum, it has turned out that only the ceramic items were collected and inventoried by P. Orsi (inv. no. 11867-11878). Therefore, there are no traces left of both the Parian marble balls and the stone pebbles.

19 ORSI (1895), 127.

A last significant example is tomb RO 1628 from the Pestavecchia necropolis in Himera,²⁰ an *enchytrismos* of a fetus or neonate buried in a locally produced stamnioid *pyxis*. The vessel also contained a black cup and seven white limestone spheres (diam. 1.5/2 cm) (fig. 7). The tomb dates from the end of the 6th to the beginning of the 5th century BCE.

2. TOWARDS AN INTERPRETATION

The function and the cultural meaning of stone pebbles and spheres are not easily ascertainable, as the topic is especially problematic and any number of explanations may be proposed.

2.1. Game Pieces?

Due to the frequent association with sub-adult tombs, highlighted in the archaeological data discussed above, it seems likely that stone pebbles and spheres (found together in tomb 768 of Megara, West necropolis, for instance) were children’s game tools, as claimed by Orsi himself in the publication of the aforementioned Syracusan burials.²¹ The precious spheres similar in size and weight belonging to our second group may be regarded as marbles.²² Even though we lack clear evidence for Greek children playing with marbles,²³ this interpretation is usually proposed for similar full bronze spheres,

20 VOLPES (2002), 49; VASSALLO (2014), 284.

21 ORSI (1895), 127, 177.

22 See *supra* § 1.2.

23 Conversely, for marble games and marble tracks in the Roman world see SCHÄDLER (2019a).



Fig. 6: Tomb 179, from Syracuse, Fusco necropolis, 6th cent. BCE. Syracuse, Museo Archeologico Regionale "Paolo Orsi". © Assessorato ai Beni Culturali e dell'Identità Siciliana della Regione Siciliana – Palermo – Prot. 3331.

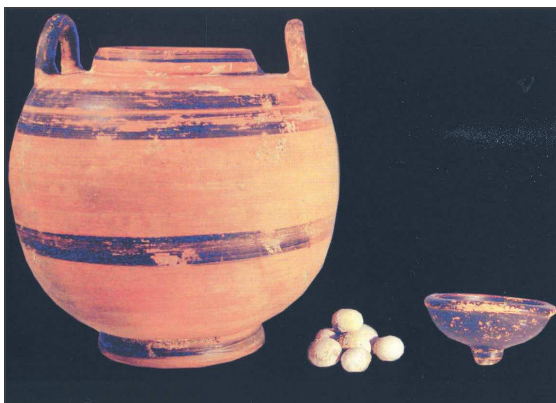


Fig. 7: Tomb RO 1628 from Himera, Pestavecchia necropolis, end 6th/ beginning 5th cent. BCE. Photo after Volpes (2002), 49.

equally documented in specific association with infant burials.²⁴

Plain pebbles were likely used for a wide range of games, also as substitutes for other natural items such as nuts, acorns or even knucklebones; particularly relevant is the well-known πεντέλιθα (*pentelitha*), for which five stones are needed according to Pollux,²⁵

²⁴ BÉRARD (2017), 240-243 for a comparison between stone and full bronze marbles in the cemeteries of Megara Hyblaea; see also D. COSTANZO in this volume (*Lokroi Epizephyrioi*, Lucifero necropolis, tombs 677 and 1614 at the Museo Archeologico Nazionale di Reggio Calabria).

²⁵ Pollux, *Onomasticon*, 9.126; COSTANZA (2019), 167-168 with references.

or the ἐποστρακισμός (*epostrakismos*),²⁶ still very popular all over the world, which consists of throwing flattened pebbles on the water surface and making them skip several times. The scene of some children playing this game on the Ostia seaside described by Minucius Felix²⁷ is particularly touching. We might also envision something like the modern game called 'Jacks', in which a large stone is thrown into the air, and players have to pick up as many smaller stones as they can before catching the large stone again. This might be the case, for instance, of the set made of a larger cobble and several smaller pebbles found in the aforementioned tomb at Mycenae (fig. 1).

Moreover, it is worth pointing out that, as far as the occurrence of any specific numbering sequence or logical system of pebbles is concerned, nothing relevant has emerged yet. Stone pebbles are easily conceivable as basic tools for any free and spontaneous ludic activity, and they can undergo sudden changes in function by being incorporated into the creative process of toy-making by children. For instance, playing at making toy-houses with round pebbles or rough stones is not only still a recurrent game among children living in preindustrial societies,²⁸ but it is also quoted by Plato, Horace, and Seneca for Greek and Roman

²⁶ COSTANZA (2019), 153-154 with references.

²⁷ Minucius Felix, *Octavius*, 3.5-6.

²⁸ See ROSSIE (2019); LAMBRUGO, in preparation.

children.²⁹ Otherwise, pebbles may simply have been collected for their beauty as personal keepsakes while wandering along rivers and lakes or on the seaside. Valerius Maximus writes that an illustrious pair of true friends, Scipio and Laelius, “used to pick up shells and pebbles wandering on the beaches of Caieta and Laurentum.”³⁰

But let us leave aside the world of children and their games to recall that pebbles are also documented in adult burials, as the gathered archaeological data has shown. In this framework, a quote from Alciphron’s *Letters* describing an astonishing magic show set up in the theatre with small pebbles seems to be particularly relevant:

[...] and then a fellow took me and carried me off to the theatre, where he gave me a good seat and entertained me by various shows. Most of the shows I don’t recall, for I’m a poor hand at remembering and telling such things; but I can tell you that one thing I saw made me almost speechless with astonishment. A man came forward, and, setting down a three-legged table, placed three little cups on it. Then under these cups he hid **some little round white pebbles**, such as we find on the banks of rapid streams. At one moment he would hide them one under each cup; and at another moment (I don’t know how) he would show them all under a single cup; and then again he would make them entirely disappear from under the cups and exhibit them between his lips. Then he would swallow them, and, drawing forward the spectators who stood near him, he would take one pebble from a man’s nose, another from a man’s ear, and the third from a man’s head, and after picking them up he would make them disappear from sight again. A very light-fingered gentleman!³¹

There is little need for further comment: pebbles might be linked to conjuring and juggling performances in the kaleidoscopic world of the *thaumatopoiōi*, and specifically to the so-called ψηφοπαῖκται and ψηφοκλέπται (*praestigiatores*),³² whose surprising ability in handling pebbles is highlighted in the literary sources.³³ In addition, Athenaeus reminds us of a bronze statue representing *Theodoros*, a famous ψηφοπαῖκτης, holding a pebble in his hand, as documented in Tomb 450 from the Fusco necropolis in Syracuse.³⁴

29 Plato, *Laws*, 1.643c; Horace, *Satires*, 2.3.247-249; Seneca, *On firmness*, 12.2.

30 Valerius Maximus, *Memorable Doings and Sayings*, 8.8 (trans. D. R. Shackleton Bailey, Loeb).

31 Alciphron, *Letters of Farmer, Napaëus or Creniades*, 2.17.1-4 (trans. Francis H. Fobes, A. Rogers Benner, Loeb).

32 For *praestigiatores* in the Classical World see TODISCO (2013), 26; TEDESCHI (2017); COSTANZA (2019), 61-63, 179-180; DASEN (2019), 131, 134.

33 Seneca, *Moral Letters to Lucilius*, 45.8; Artemidorus, *The Interpretations of Dreams*, 3.55.

34 Athenaeus, *The Deipnosophists*, 1.19b. On skill games honoured by

Pebbles could also be used as tokens or counters in ancient Greek board games (such as the famous *pente grammai* and *polis*),³⁵ especially when they appear to be grouped by colour, polished, and intentionally worked to give them a uniform shape. Luxury gaming sets with glass tokens and pebbles from excavations in northern Greece have recently been published,³⁶ and are known to us from several Etruscan, Celtic, and Italic burials (fig. 8).³⁷ However, as Ulrich Schädler rightly points out, “it is not clear whether or not they were used as gaming devices (counters for example), since they are found without dice much more often than glass counters are.”³⁸

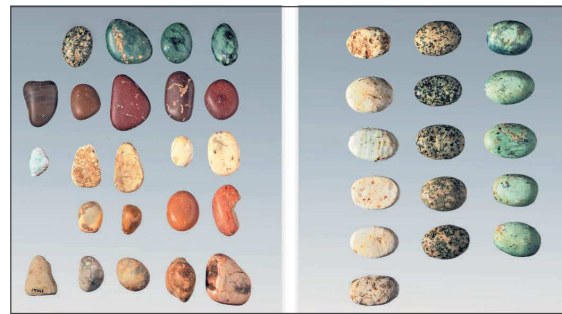


Fig. 8: Pebbles from burial Certosa 392 (left) and burial Arnoaldi 110 (right). Bologna, Civico Museo Archeologico. Photo after Schädler (2019b), 163, fig. 3-4.

Finally, as Véronique Dasen and Jérôme Gavin have recently demonstrated,³⁹ we may not exclude that manipulation of pebbles has played a crucial role in a reckoning system operated on an abacus within the development of Greek numeracy. As a matter of fact, games, mathematics, and divination – to which we will come further on –, were contiguous activities.

2.2. Tools for Hunting, Fighting or other Activities?

Pebbles might have also been used as tools. Apart from weights (but we expect pebbles as weights to be attested more frequently in domestic contexts rather than in funerary assemblages or religious contexts), they might have been tools for finishing vase surfaces,⁴⁰ or projectiles for hunting slingshots,⁴¹ especially for hare and bird chasing (fig. 9) or for fighting as slingers (ψιλοί).⁴²

votive or honorary statues, see also A. FENDT in this volume.

35 The same wide range of functions is generally supposed for clay cut discs, left apart in this paper; for the topic see D’ONOFRIO (2007); COLELLI (2021).

36 IGNATIADOU (2019), with previous references.

37 SCHÄDLER (2019b); see also MANNIEZ (2019) for interesting archaeological contexts in Roman Gaul and GRAELLS I FABREGAT (2022) for interesting comparisons in preroman Spain.

38 SCHÄDLER (2019b), 163.

39 DASEN, GAVIN (2021).

40 ADORNO (2018), 225 (*kerameikos* of Selinuente), with other references.

41 SILVESTRELLI, EDLUND-BERRY (2016), 553; MACNAMARA (1983), 228, fig. 28.

42 See, for instance, the iconography of Heracles and the Stymphalian birds in WOODFORD (1990), 55, nos. 2243-2244.

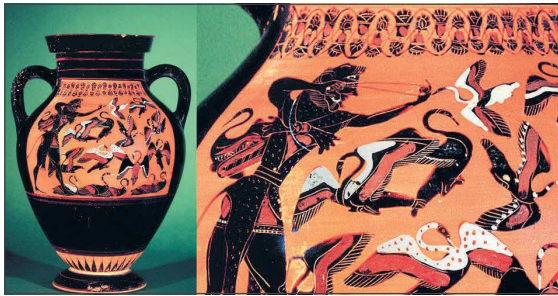


Fig. 9: Attic black figure amphora with Heracles slaying the Stymphalian birds (swans) with sling; attributed to Group E; 540 BCE. © London, British Museum (Museum Number 1843,1103.40).

There can be no question on the crucial role that hunting played in the *paideia* of the aristocratic offspring as proper preparation for adult warfare,⁴³ and we know that hunting scenes painted on Greek vases are intended to display the skills and courage of young elite males.⁴⁴ Hunting implements in tombs might have alluded to the *areté* of the deceased (especially in the case of a sub-adult individual), to reassert his role and excellence within society.

It can be then hypothesized, for instance, that the pebbles in Tomb 1181 from Contrada Pezzino at Akragas are tools, since there are only two of them, and they are rather large. Nevertheless, we know that the presence of weapons and working tools in Greek tombs of Magna Graecia and Sicily is extremely modest, due to a lack of interest in the funerary ‘representation’ of feminine and masculine genders and social (roles).⁴⁵

2.3. Votive Offerings and Ritual Objects?

There is at least another interesting way of interpreting the presence of pebbles not only in funerary assemblages but also in sanctuaries and sacred deposits: small stones may have also been votive offerings or ritual objects.

A peculiar practice of divination by manipulating pebbles (μαντική διὰ τῶν ψήφων) is recorded by Apollodorus as having been taught to Hermes by his elder brother Apollo.⁴⁶ Zenobios cites a passage written by Philochoros⁴⁷ concerning θρίασι as divination pebbles (μαντικά ψήφοι) which, according to some ancient authors, would have been invented by Athena herself. In addition, Pausanias⁴⁸

mentions a spring sanctuary dedicated to Hermes at *Pharai* in Thessaly, where the same divination practice is performed utilizing about thirty *tetragonoi lithoi*, each of them linked to the worship of a different god and called by its name.

Literary sources inform us of the existence of a minor oracular practice called cleromancy, performed by interpreting designated tokens called *sortes*. These could be made from any sort of materials: dice, knucklebones, wooden sticks, clay or bronze spheres, and, of course, pebbles.⁴⁹ The *sortes* could be picked up from a container, tossed (*lithobolia*), or rolled. Cleromancy served a myriad of purposes, from drawing lots for civil and military occasions (voting, allotting public offices, reporting for assembly or military duty) to divination for private matters.⁵⁰ However, if the *sortes* inscribed with anthroponyms can be plausibly assigned to secular activities,⁵¹ it is just as likely⁵² that spheres and pebbles inscribed with divine names might have been linked to cleromantic rituals, or at the very least used as dedications to thank the god(s) for a favourable response.⁵³

In this framework, it is intriguing that plain water-worn pebbles of different dimensions have sometimes been uncovered in ancient Greek sanctuaries, although they are seldom published properly. For instance, in Gela (Sicily),⁵⁴ isolated pebbles are recorded among the votive offerings in the Predio Sola sanctuary,⁵⁵ the sacred area in Via Tucidide,⁵⁶ and the foundation deposit of the Via Fiume sanctuary.⁵⁷ Definitely more abundant is the presence of pebbles, either alone or gathered in small groups on the bottom of a cup (fig. 10a), in the *Thesmophorion* of Bitalemi along the *Ghelas* river.⁵⁸ Here pebbles, clay and stone spheres, and knucklebones might be interpreted either as *sortes* used in cleromancy rituals for private purposes or as game pieces.⁵⁹ Also worth mentioning are the pebbles found in votive

43 VIDAL-NAQUET (1988), 99-122; SCHNAPP (1997), 123-171.

44 D’ACUNTO (2013), 48-52, 59-64 for the Chigi Vase.

45 LAMBRUGO (2019), 155.

46 Apollodorus, *Library*, 3.115; *Etymologicum Magnum* s.v. αἱ μικραὶ λιθάδες καὶ λεπταί. For a more detailed discussion about the nature of the divination taught to Hermes by Apollo, which is described differently in the *Hymn to Hermes* (by means of bees, vv. 552-563), cfr. GROTTANELLI (2001). Numerous are the literary sources on the role of *gemmae* in divination, see MACRÌ (2018), 116-124; and FARAONE (2018).

47 GIUMAN (2020), 39-40.

48 Pausanias, *Description of Greece*, 7.22.4.

49 For dice as *sortes* see PACE, in preparation.

50 CORDANO, GROTTANELLI (2001); GRAF (2005).

51 CORDANO (2001); CORDANO (2011), 102-104; LAZZARINI (2019), 97, fig. 1, all with previous references.

52 MAGGIANI (1994); SCLAFANI (2007); ROCCA (2009), 267-271; BRUGNONE (2011); PAPAICONOMOU (2013), 126-127.

53 Inscribed pebbles as votive dedications or ritual objects for divination from Sicily and Magna Graecia are mentioned in SCLAFANI (2007), 262-263 (from *Kamarina* and *Thermai Himerai*); ROCCA (2009), 267-271 (from *Selinunte*); BRUGNONE (2011), 87.

54 Preliminary notes in KRON (1992b), 68-69.

55 ISMAELLI (2011), 205, n. 749, pl. 38; cm 2.6 x 3.2; layer I, from middle 7th to middle 6th cent. BCE.

56 FIORENTINI (1985), 29.

57 ADAMESTEANU, ORLANDINI (1956), 261: “*grosso ciottolo fluviale foggiano in forma di parallelepipedo, lunghezza cm 11*”.

58 ORLANDINI (1966), 28, pl. XXIII, fig. 2: “*mucchetto di ciottoli di fiume che erano stati offerti dentro a una coppa di fabbrica locale nella seconda metà del VII sec. a.C.*”.

59 KRON (1992a), 631-633; VERGER (2013), 254.



Fig. 10a: Stone pebbles in a local cup from the *Thesmophorion* of Bitalemi (Gela), second half 7th c. BCE. Gela, Museo Archeologico Regionale (© Emanuele Turco).

deposits from the sacred area of Porta V in Akragas,⁶⁰ and from the Sanctuary of *Malophoros* in Selinunte (pebbles in a locally produced cup),⁶¹ which has also yielded an astonishing number of knucklebones (ca. 2620 according to Gabrici's report), plausibly linked to *astragalomanteia*.⁶² One may also mention the numerous pebbles found in Temple R on the acropolis of Selinunte, whose study is currently being undertaken by the author on behalf of the joint mission of the Institute of Fine Arts–NYU and University of Milan 'La Statale'.⁶³

Although our knowledge of cleromancy performed through pebbles is scarce, it is plausible that these tokens, when not inscribed, could still be interpreted by following specific instructions, especially if they were different in type of stone, colour, size, or decorated with painted symbols that have now vanished. A pebble discovered in the *Thesmophorion* of Bitalemi in Gela seems to be particularly relevant for this perspective. This object is covered in brown dots that seem to have been a natural feature of the stone rather than painted (fig. 10b).⁶⁴ A man-made

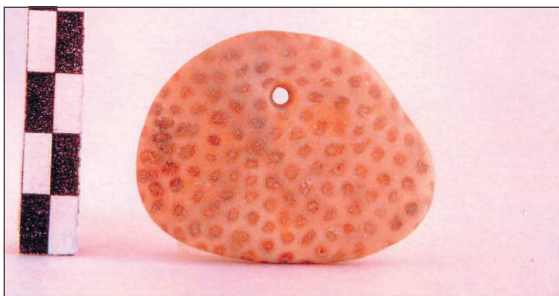


Fig. 10b: Stone pebble with naturally made (?) dots from the *Thesmophorion* of Bitalemi (Gela), deposit 409. Gela, Museo Archeologico Regionale (© Marina Albertocchi).

60 DE MIRO (2000), 49–50.

61 PARISI PRESCICCE (2003), 279–280.

62 GABRICI (1927), 160.

63 I would like to express my deepest gratitude to Clemente Marconi, Director of the Archaeological Mission, for stimulating me at this research, and to the Director of the Parco Archeologico di Selinunte e Cave di Cusa, arch. Bernardo Agrò. Recent papers on Temple R and its main phases in MARCONI (2018); MARCONI (2019); WARD, MARCONI (2020) with previous references.

64 I warmly thank Marina Albertocchi for sharing data and image.

hole suggests that it was probably worn also as an apotropaic amulet.

Interestingly, dots are sometimes painted on clay spheres such as those from the well-known 'Isis Tomb' in Eleusis (first half of the 8th cent. BCE), which is believed to have belonged to a high-status priestess⁶⁵. As there are no running holes, these objects cannot be interpreted as mere necklace beads. I wonder whether they could have instead played a role in some divination or sacred rituals, rather than being merely game pieces as suggested in past studies.⁶⁶ Kyriaki Katsarella⁶⁷ is now in charge of cataloguing numerous clay spheres (ca. 300) from Eretria, Lefkandi, and other sites in Euboea. In her provisional report, she points out how these artefacts (perforated or not) are either non-decorated or painted in red or black, with geometric motifs such as circles, lines, and 'eyes', likely referring to different meanings (?).

Moving now from Greek Sicily to mainland Greece, archaeological evidence from the temple of Poseidon at Isthmia and the sanctuary of Kommos in Crete may provide additional insights. Numerous pebbles of approximately the size of hens' eggs lay scattered and mixed with the bones and ashes from sacrifices at the level of the Archaic *temenos* at Isthmia. There can be no doubt that they played a role in religious rituals, as Oscar Broneer argues: "they may have been brought by temple officials and perhaps by the general public to permit them to participate in the ritual slaughter by casting stones at the victims".⁶⁸ This act reminds us of the rite performed on the *tumulus* tomb of *Tereus* in Megara, where the sacrifice consisted of scattering pebbles instead of barley according to Pausanias.⁶⁹ This has been interpreted as a symbolic representation of an actual bloody sacrifice, recalling a time when sacrificial animals were slain with stones rather than with blades. This interesting interpretation might turn out to be useful also for the pebbles found in the sacred areas of Selinunte, due to the well-known habit of the Selinuntines to replicate in their own city cults and rituals of the motherland Megara Nisaea.⁷⁰

The dedication of pebbles in religious contexts also appears to be linked to ancient forms of aniconism,

The dotted pebble is to be published in the forthcoming volume by ALBERTOCCHI, PIZZO, in press.

65 PAPAGGELI (2012), 105–114, with previous bibliography.

66 But five similar clay balls (ø cm 2.5/3) with painted dots are documented in a child grave (tomb 3, end 10th–beginning 9th cent. BCE), from Kerameikos, Athens (KÜBLER (1954), 212–213, pl. 15): game pieces in this case?

67 I warmly thank her for sharing the data and discussion. Her PhD on the ludic culture of central Greece is part of the SNSF project *Greek and Roman Articulated Doll Project* at Fribourg University.

68 BRONEER (1971), 55–56.

69 Pausanias, *Description of Greece*, 1.41.8–9; see also *ibid.* 2.32.2.

70 ZOPPI (2015), 36; MARCONI (2018), 187–188.

specifically the cult of stones perceived as inherently related to the divine for their unique location, appearance, or material.⁷¹ This type of cult is believed to have been deeply rooted in Crete, where evidence for baetylic cults can be found extensively in Minoan religion and in later times.⁷² In the Greek sanctuary of Kommos, for instance, pebbles are a proper dedication since the deity, namely an Apollo *Lithesios*, is here openly associated with the cult of stones.⁷³ At Kommos, in the Archaic Period water-worn pebbles were placed next to one another to form a circular bedding, or in scattered groups. But the tradition of dedicating stones to the god of Kommos was still alive in the Hellenistic Period, as demonstrated by the deposition of cups containing cobbles (fig. 10c).⁷⁴ Fabio Caruso has recently pointed out a fascinating connection. The long-term ritual habit of manipulating and dedicating stones to the god of Kommos could be linked to the practice of incubation (*enkoimesis*), possibly attested on the site by the iconography of one of the much-discussed cups with incised decoration from Kommos dating to the end of the 7th century BCE.⁷⁵ Ambiguous links between stones and dreams are also stressed by literary sources. Alkman (7th cent. BCE) claims that dreams are *hypopetridioi*, meaning that dreams live under the stones and are protected by stones (at least



Fig. 10c: Hellenistic cup with pebbles as votive dedication from the sanctuary of Kommos (Crete). Photo after Shaw, Shaw (2000), 266, cat. 560.

71 GAIFMAN (2012). An interesting link between an aniconic cult stone and the deposition of pebbles has recently been pointed out by DENTI (2020), 198-200, with previous bibliography for the site of Inconornata di Metaponto, 9th-8th cent. BCE.

72 GALLO (2005); ANZALONE (2015), 112-117. A new trilitic *simulacrum* quite similar to the famous one found in the Temple B at Kommos has recently been unearthed at Priniás (PALERMO *et al.* (2017), 458-459).

73 MELFI (2013), 359-360.

74 SHAW, SHAW (2000), 28, 266, cat. 560.

75 CARUSO (2011); see also SHAW (1983) for the cups with incised decoration.

according to the scholiast).⁷⁶ Pliny the Elder also states that “*Hammonis cornu* or ‘Horn of Ammon’, which is among the most sacred stones of Ethiopia, has a golden yellow colour and is shaped like a ram’s horn. The stone is guaranteed to ensure without fail dreams that will come true” (*Hammonis cornu* [...] *promittitur praedivina somnia repraesentare*), alluding to the fact that this specific type of stone had the power to provide prophetic dreams.⁷⁷

CONCLUDING REMARKS

A wide range of personal, recreational, functional, and even ritual interpretations based on archaeological data and literary sources may be proposed for pebbles discovered in funerary and religious contexts alike.

After suffering from a total lack of attention, stone pebbles are now regarded as significant and multifunctional items. The hypothesis of these artefacts being playthings, although very likely when they are found in infant burials – all the more convincing when found together with other game tools, such as shells (Syracuse, Fusco, Tomb 179) and marbles (Mégara Hyblaea, West necropolis, Tomb 768) – does not fully answer the question about their use. Pebbles might be also tools, deposited in tombs to mark the cultural identity and social role of the dead (a potter? a young hunter?). But even if we cannot exclude that stone pebbles had instrumental purposes, they could have still been used as *sortes* in cleromancy, or as proper votive objects related to aniconic cults, or even played a powerful role in helping people to have prophetic dreams.

In this context, it is worth pointing out again the previously mentioned Tomb 29 from Muro Tenente. The deceased, a young woman, was holding five pebbles in her hands. She was also buried with a set of miniature vessels (a trozzella, a krater, and a *phiale*), a black-glaze oil lamp, three knucklebones, and a whetstone. It is then fairly plausible that she may have been a local soothsayer, called *sortiloca* in literary sources.⁷⁸

Additional research in the coming years may shed further light and provide more food for thought on this intriguing issue. With the evidence currently available, it seems safe to assume that the archaeological context frequently has the final say in interpreting the data. The debate remains open, but a lot is on the plate: a stimulating starting point for future inquiries.

76 Alcman, fr. 1 Page, 49, schol. A 9; see CARUSO (2011), 219.

77 Pliny, *Natural History*, 37.167.

78 See MAGGIANI (1994), note 38.

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