Currency from Two Farmsteads in the Ancient Leivithra Plains in Southern Pieria

Eleni Klinaki

Excavation of the past two decades has brought to light a number of rural installations at the broader area of Macedonian Olympus (Pigi Athinas, Tria Platania, Goritsa, Triantafillia, Kompoloi, Douvari I–II, Skotina Resort) (fig. 1). They are located at the territory of the cities Heraklion and Leivithra and are dated at Classical and Hellenistic period. They are classified to small, semi-mountainous farmhouses with limited production just for self-sufficiency (Goritsa, Triantafillia) and to large lowland farmsteads – $\alpha \gamma \rho \epsilon \pi \alpha \delta \lambda \epsilon \iota \varsigma$ — with surplus production and commercial activity (Tria Platania⁴, Kompoloi-Douvari⁵).

The current paper examines the numismatic material of the two neighbouring country houses at Kompoloi and Douvari I site. Kompoloi was a wine production estate of about 5 acres. It was located near the coastal road connecting Macedonia with Thessaly, at a distance of about 3 km from Leivithra and Heraklion. It is dated from the second half of the 4th to the early 3rd century BC when it was violently destroyed possibly during the invasion of the Gauls. It consisted of two inner-facing buildings, the house to the east and the winery to the west, connecting with a roofed corridor in a compound complex of 1350 m² (fig. 2). A number of 47 pithoi and pithoi pits were found in the storage area and outdoors. The capacity of biggest pithoi for processing and storage wine is calculated up to 2000 liters each.



Fig. 1: Google Earth map with ancient farmhouses and cities of southern Pieria.

Published in: Martin Bentz – Michael Heinzelmann (Eds.), Sessions 2–3, Single Contributions. Archaeology and Economy in the Ancient World 53 (Heidelberg, Propylaeum 2022) 313–331. DOI: https://doi.org/10.11588/propylaeum.999.c13361

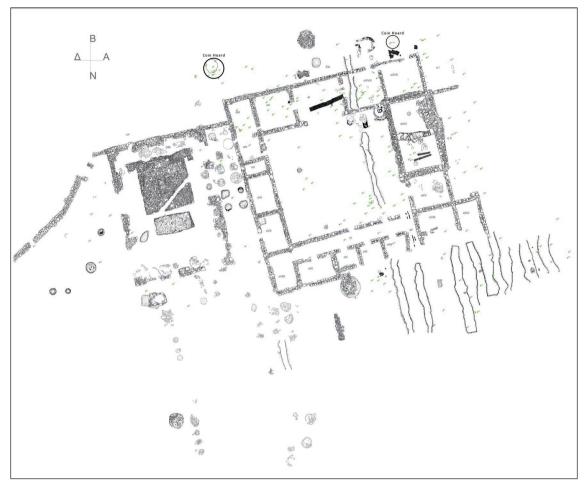


Fig. 2: Kompoloi: Plan of the farmstead with coin distribution.

A total of 230 coins derived, all bronzes except from 2 silver. The main bulk of both royal and civic coins was found at the broader area of the house. They were mostly unearthed at the northern and eastern wing of the house, which also were the richest in fine pottery, indicating that the main living quarters and the public sections of the house were situated in that area (fig. 2). On the contrary, just a few coins and almost no other findings derived from the storage area (*pitheon*), indicating a limited accessibility perhaps as a result of the vulnerability of wine. Predictably, royal coinage forms the vast majority (c. 90%), mainly been represented by Macedonian issues (fig. 3. 4. 5). A total of 22 civic and federal coins were also found, struck by 14 mints (fig. 3). The regal coins belong to Amyntas III (1), Philip II (55), Alexander III (75), Cassander (45), Demetrius Poliorcetes (15), Antigonus Gonatas (3) and Perseus (1).

Just a few bronzes are attributed to the initial phase of the farmstead, consisting of only the western storage building – in a simpler form – along with some outdoor structures and a vineyard. They are all royal issues except from 1 civic. ¹² The earliest are

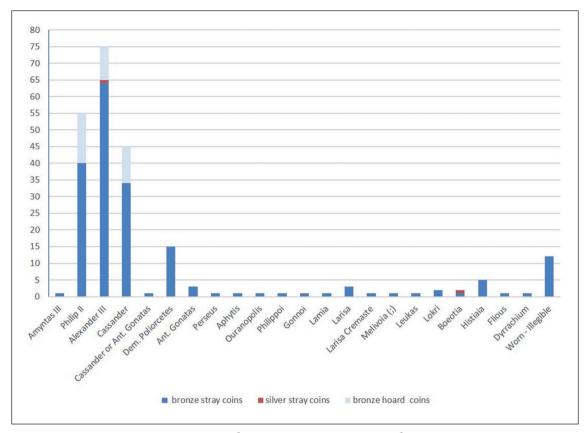


Fig. 3: Kompoloi: Coins per issuing authority.



Fig. 4: Kompoloi: Regal coins (a. Philipp II, b-d. Alexander III).



Fig. 5: Kompoloi: Regal coins (a. posthumous Alexander III, b-c. Cassander, d-e. Demetrius Poliorcetes)

1 coin of Amyntas III ('Heracles/eagle')¹³ and a few of Philip's II main type ('male head/rider')¹⁴ (fig. 4a). More than a half concern the main types of Alexander III 'Heracles/weapons $A\Lambda E\Xi AN\Delta POY$ '¹⁵ and 'B-A'¹⁶ (fig. 4c–d). The 'shield (thunderbolt)/helmet B-A' (fig. 4b)¹⁷ and 'male head/horse $A\Lambda E\Xi AN\Delta POY$ '¹⁸ types are represented with just 1 coin each. As concluded from the coins and the pottery, the wine making farmstead was founded at the time of Philip II, a period of political and economic stability that encouraged the intensive agriculture and the installation of big farm units for specialized production.¹⁹

The main phase has yielded two silver and a three-digit number of bronze coins, including two small circulation hoards (fig. 2)20. "Kompoloi/2000" hoard was buried northern of the house, consisting of 25 coins, 15 of Philip ('male head/rider') and 10 of Alexander (9 'Heracles/weapons $A\Lambda E\Xi AN\Delta POY$ ' and 1 'Heracles/weapons B-A').²¹ "Kompoloi/1997" hoard, which was scattered northern the pitheon and had been possibly concealed within it, comprises 11 coins of Cassander's 'Heracles/seated lion $KA\Sigma\Sigma AN\Delta POY'$ primary type. ²² The high proportion of Philip's hoard and stray coins can be explained by their long-term circulation and the existence of posthumous issues. 23 Alexander's coins are predominant as in the initial phase. However, there is now a significant percentage of posthumous issues, consisting of a drachm of 'Heracles/ Zeus' type²⁴ and the 'male head/horse $A\Lambda E\Xi AN\Delta POY$ ' bronze type, which, as Ch. Gatzolis has confirmed through hoard evidence, was struck by Cassander in the name of Alexander IV (fig. 5a).²⁵ If the coins within Alexander's reign are divided from the posthumous issues, the numismatic presence of Cassander prevails (fig. 6). The latest is represented with all his bronze coin types, with predominance of 'Heracles/rider'26 main regal type (fig. 5c) and a high percentage of 'Heracles/seated lion' prior type

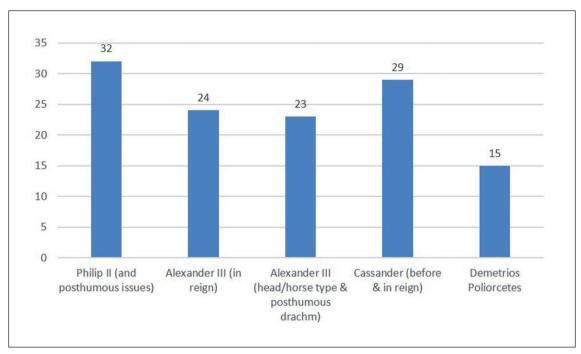


Fig. 6: Kompoloi: Regal coins from the main phase of the farmstead.

(fig. 5b). So, as coin finds indicate, the winery farmstead was expanded during Alexander's reign or in the early – post Alexandrian period and flourished in time of Cassander, when the neighboring farmhouse at Douvari as well as the farmstead at Tria Platania were established.²⁷ As based on amphora study, Kompoloi farmstead might produced a variety of Mendaian wine²⁸ confirming Athenaeus (11.784c) that Cassander favored the mass trade of wine far beyond the city origin of Mende.²⁹ The farmstead was violently destroyed in the early 3rd century BC, as is testified from Demetrius Poliorcetes' coins, which mainly belong to 'shield (中)/helmet' Macedonian type³⁰ (fig. 5d) as well as to some non-Macedonian issues³¹ (fig. 5e). Pottery and a few coins indicate a limited use of space after the destruction until the Roman conquest.³²

The partly excavated installation at Douvari I consisted of a small farmhouse, some outdoor structures and a few wine *pithoi.*³³ In total 25 bronze coins were found, all of which regal except from two Thessalian (fig. 7).³⁴ The stray coins belong to Cassander after receiving the royal title, to Demetrius Poliorcetes and to Ptolemy Keraunos.³⁵ A small coin hoard of bronzes was buried in the farmhouse ("Douvari I/1999"). It comprises 1 coin of Alexander III ('shield/helmet'), 1 of Cassander ('Heracles/rider'), 2 of Poliorcetes ('shield/helmet') and 4 worn coins of the same type. Its concealment is possibly dated in the chaotic period from Keraunos' death to the consolidation of Gonatas' reign.³⁶

According to numismatic evidence, the farmhouse was established – probably as supporting facility to Kompoloi – in the late 4th century BC.³⁷ After its destruction in

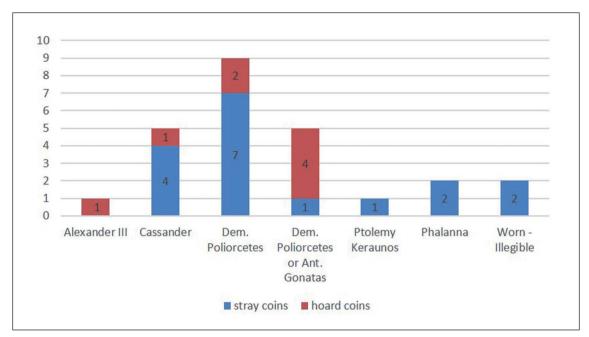


Fig. 7: Douvari I: Coins per issuing authority.

the years of the Gauls' invasion it was immediately rebuilt and remained in function possibly until the 2^{nd} century BC as testified from the pottery, since coin evidence of this phase is lacking.

Kompoloi was a wealthy farmstead, as is mainly indicated by its size and the extended storage space that confirms a mass production of wine for large scale trade. Moreover, viticulture and wine production required a very costly investment in land, infrastructures, equipment and workforce³⁸. Regarding the market network, the neighboring cities of Leivithra and Herakleion would support the local trade of wine, as well as Dion due to the attendance of visitors and pilgrims.³⁹ Moreover, the proximity of the farmstead to the main land route connecting Macedonia with Thessaly as well as to the harbor of Herakleion, allowed the disposal of wine even to long-distance markets. The numismatic material from Kompoloi, although partial since the house was not excavated eastwards, is much more numerous than that of other published farmhouses of Classical and Hellenistic Macedonia (fig. 8), as well as of Thessaly and Attica.⁴⁰

Being comparable only to that of the large, lowland farmsteads Tria Platania and Liotopi Routsheli at Macedonia, it reflects a market oriented economy with high degree monetization.

As expected, the bulk of coins are bronzes, which according to the prevailing point of view, served mainly everyday transactions and local retail trade, whereas precious metal issues served large-scale trade. ⁴¹ Wine was a risky but highly profitable product with unstable value that was influenced by a range of factors. Taking into account the lowest price, the content of only one large pithos from Kompoloi that held up to 2000

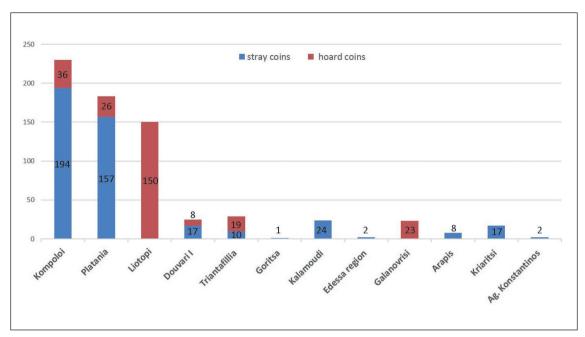


Fig. 8: Kompoloi: Coins from Macedonian farmhouses.

liters can be estimated at least to 132 drachmae, an indicative portion of annual profit. ⁴² The low percentage of precious metal coins, although very close to the average value of other published sites, is in contradiction to the huge quantity and the possible mass distribution of the wine. A possible explanation is that the countryside facilities were unsafe for gathering large sums of money, which would, therefore, have been kept in the urban residence of their owners. ⁴³ Moreover, the scarcity of precious metal coins and other valuable findings may indicate that the occupants took them when they abandoned the farmstead because of the Gauls' threat.

Civic and federal coins are also bronzes except from a silver fraction of the Boeotian League.⁴⁴ Despite their geographical expansion they concern isolated or limited coins per mint⁴⁵. Similar to other sites of Pieria, the main bulk belongs to Thessaly (7)⁴⁶ due to the proximity of the two regions and the annexation of Thessaly to the Macedonian kingdom.⁴⁷ The rest concern Philippoi (1),⁴⁸ Ouranopolis (1),⁴⁹ Afytis (1),⁵⁰ Histiaia (5),⁵¹ Locri (2),⁵² Boeotian League (2),⁵³ Lefkas (1)⁵⁴ and Phlious (1)⁵⁵. Furthermore, it's quite interesting that some of the issuing regions, such as Melivoia, Histiaea, Lefkas and the far distanced Phliasia were wine-making lands themselves.⁵⁶ Although bronze coins are generally considered as legal currency mainly within the territory of their issuing authority⁵⁷, it is suggested that coins of Philippoi and possibly some issues from Thessaly must have circulated within the Macedonian kingdom during the second half of 4th century BC.⁵⁸ L. Robert explained the presence of foreign bronzes at a site in terms of people's movement for various purposes, as merchants, craftsmen, artists, soldiers etc.⁵⁹ The foreign coins at Kompoloi primarily illustrate the contacts of its residents

320

with people from other regions through land and sea routes, whether workers, visitors or merchants. Their geographical expansion and the high proportion (circa 10%), approaching that of urban centers, ⁶⁰ might be a further indication of the intensive commercial activity of the farmstead or of the widespread trade of the wine. On the contrary, the farmstead at Tria Platania with diversified surplus production for domestic consumption and limited local trade had only six foreign coins, all Thessalian. ⁶¹ Furthermore, the semi-mountainous farmhouses at Triantafillia and Goritsa, with a limited production just for family consumption, had none. ⁶²

The interpretation of coin finds at Kompoloi, which due to requirements of production was a permanent residence, cannot be univocal as might have been the money from the retail sale of wine, the purse of the residents, the workers, the visitors, even the traders. Monetization and coin circulation at Kompoloi seems not to have been differentiated from that of the urban sites of the Macedonian kingdom,⁶³ indicating that it was an extroverted farmstead with prosperity through an intensive commercial activity. Besides, as N. Cahill has pointed out for Olunthus, "the number of coins is less an index of wealth and more an indication of the intensity of monetary trade and participation in commercial economy".⁶⁴

In conclusion, Kompoloi was the centre of a specialised wine production industry rather than a typical farmstead.⁶⁵ It reflects the economic growth of the Macedonian kingdom from the reign of Philip II onwards, with main features being the development of urban centers and market networks with high degree monetization, the intensification of production and trade mechanisms, the safeguarding of ownership and the encourage of private involvement in a wide range of economic activities beyond the primary production sector of land cultivation⁶⁶.

Notes

- ¹ I am grateful to Efi Poulaki, excavation director and Honorary Ephor of Antiquities, for her permission to study the numismatic material of current paper. I would also like to thank Aliki Moustaka, Professor of the Aristotle University of Thessaloniki, for all her valuable support and Christos Gatzolis, Director of Ephorate of Antiquities of Pieria, for his useful comments.
- ² A Roman farmhouse was also unearthed at Pigi Athinas, next to the Classical one (Poulaki 2003, 54–55).
- ³ Klinaki 2015, 34-36.
- ⁴ Poulaki 2003, 56–62; Gerofoka 2015.
- ⁵ Poulaki 2003, 63–70; Poulaki 2004, 45–56; Poulaki-Pantermali 2014, 55–67; Mourati 2014; Margaritis forthcoming. The production scale of farmhouses at Pigi Athinas and Skotina Resort is unknown due to limited excavation.
- ⁶ Margaritis 2016.
- ⁷ Poulaki-Pantermali 1998; Poulaki-Pantermali 2008; Poulaki-Pantermali 2014, 37–41.
- 8 Poulaki-Pantermali 2001, 335-340; Poulaki-Pantermali 2013, 117-123.

- ⁹ Douvari, Tria Platania and the harbour area of Heraklion were also destroyed but they were reconstructed and re-inhabited (Poulaki 2003, 59; Poulaki-Pantermali 2014, 67–70; Gerofoka 2015, 199. 200; Touratsoglou 2006; Poulaki 2013, 123; Bachlas Siros 2014).
- ¹⁰ Mourati 2014, 64–71.
- ¹¹ Klinaki 2015.
- ¹² SNG Alpha 6, 700-702 (Locrian).
- ¹³ SNG Alpha 214–230. For the coinage of Amyntas III, see Westermark 1989, 307. 308.
- ¹⁴ SNG Alpha 349–407. For the bronze coinage of Philip II, see Bellinger 1964, 29–52; Portolos 1996; Touratsoglou 2003.
- ¹⁵ SNG Alpha 712-737.
- ¹⁶ SNG Alpha 781–815; Price 1991, 126–128 nos. 373–396 (325–310 BC); Gatzolis 2012, 385 (within Alexander's reign). For the coinage of Alexander III, see indicatively Price 1991; Liampi 1998a; Gatzolis 2012.
- 17 SNG Alpha, 820–848; Price 1991, 128–130, nos. 396A–418 (325–310 BC); Liampi 1998a; Liampi 1998b, 100. 101, M7 (in Alexander's reign).
- ¹⁸ SNG Alpha 746–779; Price 1991, 123–125, nos. 338–370 (in Alexander's reign); Gatzolis 2012, 383. 389 (posthumous).
- ¹⁹ Poulaki 2003, 53. For Philip's reign, see indicatively Touratsoglou 2010, 40–47.
- ²⁰ Small coin hoards were also found at Douvari I, Triantafillia, Tria Platania, Liotopi, Galanovrisi (see fig. 8).
- 21 Its burial can be dated in 336–316 BC or in 325–310 BC, according to the different dating of 'Heracles/weapons B-A' type. For similar hoards, see IGCH 404; CH VIII 202; CH IX 103; CH X 30; CH VIII 297; IGCH 413; IGCH 844; CH IX 82; IGCH 788; CH IX 104; CH I 45; CH II 53; CH III 26; CH X 41; Stefani 2012, 46; Gatzolis 2010, II, 426–431; Poulios 1982, 188–192. 199. 200.
- ²² For the type, see SNG Alpha 876–889. One hoard coin as well as one of the stray coins were overstruck on Alexander's posthumous type 'male head/horse'. Its concealment is dated in 309–306/5 or –301 BC. For similar coin hoards, see CH X 56; CH VIII 241; Polihne/2003 (Gatzolis 2010, II, 79–81).
- ²³ The main bulk belongs to 'male head/rider' main type (SNG Alpha 339–407), which continued to be struck for a long time after Philip's death (Gatzolis 2010, II, 455, 460; Kremydi-Sisilianou 2000, 68; Topalov 2009, 285–291). 'Heracles/rider' type (SNG Alpha 408–411) is represented with a few coins, as well as the posthumous types 'Heracles/bow' (SNG Alpha 439–454) and 'male head/rider on walking horse' (SNG Alpha 426–438). For the posthumous issues, see Bellinger 1964, 47. 48; Lazaridis et al. 1992, 51; Akamatis N. 2017.
- ²⁴ Price 1991, no. 1398.
- ²⁵ Gatzolis 2012, 383–385.
- ²⁶ SNG Alpha 900–936. The royal types 'Heracles/lion breaking javelin' (SNG Alpha 937–941) and 'Apollo/ tripod' (SNG Alpha 890–899) are represented with a few coins each. For the coinage of Cassander, see Oikonomos 1921; Ehrhardt 1973; Valassiadis 2005; Gatzolis 2012.
- ²⁷ About the prosperity of the kingdom in that period, see Touratsoglou 1998; Touratsoglou 2010, 80 f; Touratsoglou 2012, 36–45.
- ²⁸ Margaritis 2016, 199; Bachlas 2018, 861. 862.

- ²⁹ Papadopoulos Paspalas 1999; contra Lawall 2004.
- ³⁰ SNG Alpha 960-971.
- ³¹ Non-Macedonian issues: 1 'Demetrius/prow' of Salamis mint (Newell 1927, 20) and 2 of the same type in smaller denomination from Caria (Newell 1927, 163) or Greece (Knapp Mac Isaac 2005, 71 n. 253; Weir 2007, 17; Gatzolis 2010, II, 476). Also, 1 coin of 'Poseidon/prow' type from Caria (Newell 1927, 167). For the coinage of Poliorcetes, see Newell 1927; Liampi 1998b, 105. 106.
- ³² Antigonus Gonatas' 2 coins of 'Athena/Pan' type (SNG Alpha 1010–1038) and 1 of 'Heracles/rider' type (SNG Alpha 990–1000). For the coinage of Gonatas, see Poulios 2001; Furtwängler 2004. Perseus' 1 coin of 'Perseus/eagle' type (SNG Alpha 1135–1142).
- ³³ Poulaki 2003, 63; Mourati 2014, 72–74; Margaritis forthcoming, 117. 118.
- ³⁴ Klinaki 2015, 46–48.
- ³⁵ Head 1879, 15 no. 59. For the attribution, see Psoma et al. 2008, 217–224 with earlier bibliography.
- ³⁶ For Makrigialos/1995 (CH IX 161) and Vergina/1994 (CH IX 162) coin hoards of the same period, see Gatzolis 2000.
- ³⁷ The neighboring farmhouses at Douvari II and Skotina Resort might also have been supportive installations to Kompoloi.
- ³⁸ Mourati 2014, 144–164; Margaritis 2016, 199; Margaritis forthcoming, 111–115. For the estimated average yield of an ancient vineyard, see Salviat 1986, 151; Steinhauer 2009, 418. For land sales, see Hatzopoulos 1991, 33–38, VI; Lilimbaki-Akamati Stephani 2003, 166 n.46. 184 n.168; Morris Papadopoulos 2005, 178; Hatzopoulos 2011, 60. For the acquisition cost of pithoi, see Cahill 2001, 228. 232.
- ³⁹ Vasiliadou 2011, 129. 130. Margaritis 2016, 199. For Dion, see Pantermalis 1999; Stefanidou-Tiveriou 1998; Pingiatoglou 2015.
- ⁴⁰ For farmhouses in Macedonia, see Tria Platania: Gerofoka 2015, 191–197. Liotopi: Adam-Veleni 2001; Adam-Veleni 2003, 101–107; Adam-Veleni 2009, 10 no. 5). Triantafillia: Klinaki 2015, 48. 49. 132. 133. Kalamoudi: Malama et al. 2000. Edessa region: Chrisostomou 2008, 89–100. Galanovrisi: Stefani 2002; Stefani 2012. Arapis: Stefani 2001. Kriaritsi: Asouhidou et al. 2000. Ag. Konstantinos: Karamitrou-Mentesidi Theodorou 2011. For Tserli farmhouse at Larisa region of Thessaly, see Karapanou 2015, 28. For farmhouses in Attica, see Demakopoulos 2017.
- ⁴¹ Howgego 2009, 193; Touratsoglou 2010, 64; Touratsoglou 2012, 36. 37.
- ⁴² For the volume of amphorae, see Wallace 2002. From graffiti on amphorae of 5th cent. BC at the Athenian Agora, it is estimated that the price of Chian wine was 28 dr. and of Mendean 15 dr. per jar (Lang 1956, 15; Lawall 2000). From the Attic Stelai it is concluded that the attic or unnamed wine valued in 4th cent. BC circa 4 dr. per metretes (Lang 1956, 14; Franke 1999, 38). From Demosthenes speeches the wholesale price of Mendean wine in 4th cent. BC is evaluated to 2 dr. per amphora (Pritchett 1956, 199–202). The wine price at Hellenistic Delos ranged from 4 to 11 dr. per metretes (Reger 1994, 234–238).
- ⁴³ Touratsoglou 2013, 798.
- 44 SNG Alpha Bank 6, 819-821.
- ⁴⁵ Most of civic and federal coins have also been found at the harbour of Herakleion (Myteletsis forthcoming) and at Dion (Paulopoulou 2016, 301. 304–306). 1 coin of Dyrrachium 'Helios/prow' type is dated after the destruction of the complex and thus is not further discussed (Gardner 1873, 77 nos. 180–184 for the type; 72 nos. 106. 107 for archon's name).

- ⁴⁶ 1 of Gonnoi (SNG Cop. III, 53); 3 of Larisa (SNG Alpha 6, 110–118. 125); 1 perhaps of Melivoia (BCD Thessaly I, 1196); 1 of Larisa Cremaste (SNG Soutzos, 378–9); 1 of Lamia/Malieis (SNG Alpha 6, 64). More over, 2 coins of Phalanna were found at Douvari I (SNG Alpha 6, 208–223). Thessalian coins also prevail at Pella (Akamatis N. 2016, 189) and Aigai (Kremydi Chryssanthaki-Nagle 2016, 164).
- ⁴⁷ For the uninterrupted production of Thessalian mints at Philip's time and on, see Martin 1985, 58. 59; Papaeuaggelou-Genakou 2004, 43 n. 27; Georgiou 2004, 168; Georgiou 2007, 58. For Macedonian coins at Thessaly, see Liampi 2000.
- ⁴⁸ Poulios 1982, 191 no. 85.
- ⁴⁹ SNG ANS 7, 914–7.
- ⁵⁰ SNG ANS 7, 217–8. For the coinage of Chalcidic Peninsula, see Psoma 2001; Psoma 2011; Psoma 2012; Gatzolis 2011.
- ⁵¹ SNG Alpha 6, 934-940; SNG Alpha 6, 944. 945.
- ⁵² SNG Alpha 6, 700-702; BCD Lokris Phokis 118.4.
- ⁵³ SNG Alpha 6, loc. cit (n. 49); SNG Alpha 6, 827.
- ⁵⁴ BMC Thessaly, 175 no 19 (vice versa).
- ⁵⁵ Mac Isaac 1988, 45-54.
- ⁵⁶ Melivoia (Helly 2004, 109, 113); Histiaea (Hom. II. 2, 537); Lefkas (Pliakou 2002); Phliasia (Kourakou-Dragona 2013, 91–101). For the same issue at winemaking Maroneia and Pella, see Akamatis I. 2000, 13.
- ⁵⁷ Gatzolis 2010, I, 9; contra Kroll Walker 1993, 168. 169.
- ⁵⁸ Gatzolis 2010, II, 268. 269; Akamatis N. 2016, 199.
- ⁵⁹ Robert 1949, 83; Robert 1966, 113. 114. For mercenaries' payment (sitarxia), see Psoma 2009.
- 60 Circa 8% at Pella (Akamatis N. 2016, 188) and Aigai (Kremydi Chryssanthaki-Nagle 2016, 164). The average value of foreign coins is 3,5% at Central Macedonia and 6% at Pydna (Gatzolis 2010, II, 20–23. 303–307).
- ⁶¹ Gerofoka 2015, 197. 207. 213. 214; Margaritis 2016.
- 62 Klinaki 2015.
- 63 e.g. for Pella, see Akamatis N. 2016 and for Dion, see Paulopoulou 2016, 243-245. 290-292.
- 64 Cahill 2001, 268.
- 65 Margaritis 2016, 198.
- ⁶⁶ Gatzolis 2010, II, 537-538; Touratsoglou 2010, 68-106.

Image Credits

Fig. 1–2: Archive of the Ephorate of Antiquities of Pieria. – Fig. 3: Chart by Eleni Klinaki. – Fig. 4–5: Photo by Eleni Klinaki. – Fig. 6–8: Charts by Eleni Klinaki.

References

Adam-Veleni 2001

P. Adam-Veleni, Αγροικίες στην Ασπροβάλτα στον άξονα της σύγχρονης Εγνατίας οδού, ΑΕrgo-Mak 15, 2001, 167–179, https://www.academia.edu/3214318/ (04/05/2020).

Adam-Veleni 2003

P. Adam-Veleni, Μυγδονία-Στρυμονικός κόλπος, in: Adam-Veleni et al. 2003, 91–114.

Adam-Veleni 2009

P. Adam-Veleni, Αγροικίες της Μακεδονίας. Οι απαρχές της 'φεουδαρχίας', ΑΕrgoMak Επετειακός Τόμος για τα 20 χρόνια, 2009, 1–16.

Adam-Veleni et al. 2003

P. Adam-Veleni – Ε. Poulaki – Κ. Tzanavari, Αρχαίες αγροικίες σε σύγχρονους δρόμους (Athens 2003).

Akamatis I. 2000

Ι. Akamatis, Ενφράγιστες λαβές αμφορέων από την Αγορά της Πέλλας, Ανασκαφή 1980–1987, Οι ομάδες Παρμενίσκου και Ρόδου (Athens 2008).

Akamatis N. 2016

- N. Akamatis, Numismatic Circulation in the Macedonian Kingdom. The Case of Pella, in:
- C. Grandjean F. Duyrat (eds.), Les monnaies de fouille du monde grec (vie–Ier s. a.C.) (Bordeaux 2016) 177–201.

Akamatis N. 2017

N. Akamatis, The Chronology of Two Bronze Issues in the Name of Philip II of Macedonia, RNum 174, 2017, 151-182.

Asouhidou et al. 2000

S. Asouhidou – E. Gioura – S. Kotsos – M. Mantazi – Th. Dogas – D. Solkidou – S. Tsolakis., Οι ανασκαφικές έρευνες στο Κριαρίτσι Συκιάς Ν. Χαλκιδικής κατά τα έτη 1999–2000, AErgoMak 14, 2000, 331–345.

Bachlas 2018

V. Bachlas, Stamped Trade Amphorae from the Ancient Cities of Pierikon Herakleion and Leivithra, 9th Scientific Meeting on Hellenistic Pottery, Thessaloniki, December 5–9th 2012 (Athens 2018) 857–880

Bachlas - Siros 2014

V. Bachlas – Α. Siros, Ελληνιστική κεραμική από δύο πηγάδια – αποθέτες του Πιερικού Ηρακλείου, Πρακτικά Η΄ Επιστημονικής Συνάντησης για την Ελληνιστική κεραμική (Athens 2014) 205–233.

BCD Lokris-Phokis

Lokris-Phokis. The BCD Collection, NAC AG, Auction Catalogue 55, 8 October 2010 (Zurich 2010).

BCD Thessaly I

Coins of Thessaly. The BCD Collection, Nomos AG, Auction Catalogue 4, 10 May 2011 (Zurich 2011).

Bellinger 1964

R. Bellinger, Philippi in Macedonia, ANSMN 11, 1964, 29-52.

Cahill 2001

N. Cahill, Household and City Organization at Olynthus (New Haven 2001).

Chrisostomou 2008

A. Chrisostomou, Εθνική οδός Θεσσαλονίκης – Φλώρινας, Σωστικές ανασκαφές κατά το 2006–2008 στο τμήμα Νέας Χαλκηδόνας – Έδεσσας (Thessaloniki 2008).

Demakopoulos 2017

S. Demakopoulos, Αγροικίες Κλασικής και Ελληνιστικής Εποχής στην Αττική (Ph.D. diss. Aristotle University, Thessaloniki 2017).

Ehrhardt 1973

C. Ehrhardt, The Coins of Cassander, JNFA 2/2, 1973, 25-32.

Franke 1999

P. R. Franke, Οίνος και Νόμισμα στην Αρχαία Ελλάδα (Athens 1999).

Furtwängler 2004

A. E. Furtwängler, Beobachtungen zur Chronologie Antigonidischer Kupfermünzen im 3. Jh.

v. Chr., in: L. Kypraiou (ed.), Το νόμισμα στο θεσσαλικό χώρο. Νομισματοκοπεία, κυκλοφορία, εικονογραφία, ιστορία, Ovolos 7 (Athens 2004) 277–290.

Gardner 1873

P. Gardner, Catalogue of the Greek Coins in the British Museum. Thessaly to Aetolia (London 1873).

Gatzolis 2000

Ch. Gatzolis, Δύο ελληνιστικοί θησαυροί από τη Μακεδονία, in: P. Adam-Velenē (ed.), Το νόμισμα στο μακεδονικό χώρο, Ovolos 4 (Thessaloniki 2000) 103–126.

Gatzolis 2010

Ch. Gatzolis, Η κυκλοφορία του χάλκινου νομίσματος στη Μακεδονία, $50\varsigma - 10\varsigma$ αι. π.Χ. (Ph.D. diss. Aristotle University, Thessaloniki 2010).

Gatzolis 2012

Ch. Gatzolis, A Reexamination of the Bronze Coinage of Alexander III and Cassander in the Light of the New Excavation and Hoard Evidence, in: Tiverios et al. 2012, 381–397.

Georgiou 2004

E. Georgiou, Το νομισματοκοπείο της Λαμίας, in: L. Kypraiou (ed.), Το νόμισμα στο θεσσαλικό χώρο. Νομισματοκοπεία, κυκλοφορία, εικονογραφία, ιστορία, Ovolos 7 (Athens 2004) 157–172.

Georgiou 2007

E. Georgiou, Νομισματικές μαρτυρίες από την πόλη της Λαμίας. Μια πρώτη προσέγγιση, in: Πρακτικά 3ου Συνεδρίου Φθιωτικής Ιστορίας, Λαμία 4–6 Νοεμβρίου 2005 (Lamia 2007) 53–64.

Gerofoka 2015

Ε. Gerofoka, Η αγροικία στη θέση Τρία Πλατάνια του νομού Πιερίας. Συμβολή στη μελέτη της αρχαίας αγροικίας (Thessaloniki 2015).

Hatzopoulos 1991

M. B. Hatzopoulos, Actes de vente d' Amphipolis, Μελετήματα 14 (Athens 1991).

Hatzopoulos 2011

M. B. Hatzopoulos, A List of Sales from Mieza and the Constitution of Extensive Landed Properties in the Central Macedonian Plain, Τεκμήρια 10, 2011, 46–69.

Head 1879

V. Head, Catalogue of the Greek Coins in the British Museum. Macedonia Etc. (London 1879).

Helly 2004

Br. Helly, Sur quelques monnaies des usti Magnètes. Euréai, Eyryménai, Méliboia, Rhizous, in:

L. Kypraiou (ed.), Το νόμισμα στο θεσσαλικό χώρο. Νομισματοκοπεία, κυκλοφορία, εικονογραφία, ιστορία, Ovolos 7 (Athens 2004) 101–124.

Howgego 2009

C. Howgego, Η αρχαία ιστορία μέσα από τα νομίσματα (μτφ. Μ. Ζαχαριάδου) (Athens 2009).

Karamitrou-Mentesidi - Theodorou 2011

G. Karamitrou-Mentesidi – D. Theodorou, Από την έρευνα στο φράγμα Ιλαρίωνα (Αλιάκμων). Η ανασκαφή στο Μέγα Άη Γιώργη και Άγιο Κωνσταντίνο Δήμητρας Γρεβενών, ΑΕrgoMak 25, 2011, 109–131.

Karapanou 2015

S. Karapanou, Η Ελληνιστική αγροικία στη θέση "Τσερλή" Καλαμακίου, ανατολική Θεσσαλία (Larisa 2015).

Klinaki 2015

Ε. Klinaki, Η αγροικία στη θέση "Κομπολόι" στην πεδινή χώρα των Λειβήθρων. Νομισματική μαρτυρία (Master's diss. Aristotle University, Thessaloniki 2015).

Knapp - Mac Isaac 2005

C. Knapp – J. D. Mac Isaac, Excavations at Nemea III. The Coins (Berkley 2005).

Kourakou-Dragona 2013

St. Kourakou-Dragona, Άμπελος και Οίνος στον αρχαίο ελληνικό κόσμο (Athens 2013).

Kremydi - Chryssanthaki-Nagle 2016

Kremydi – K. Chryssanthaki-Nagle, Aigeai and Amphipolis. Numismatic Circulation in Two Major Macedonian Cities, in: C. Grandjean – F. Duyrat (eds.), Les monnaies de fouille du monde grec (VIe–Ier s. a.C.) (Bordeaux 2016) 157–176.

Kremydi-Sisilianou 2000

S. Kremydi-Sisilianou, Μακεδονία και Ακαρνανία. Η χρήση μακεδονικών χαλκών για την κοπή ακαρνανικών εκδόσεων, in: P. Adam-Velenē (ed.), Το νόμισμα στο μακεδονικό χώρο, Ovolos 4 (Thessaloniki 2000) 61–74.

Kroll - Walker 1993

J. H. Kroll - A. S. Walker, The Greek Coins, Agora 26 (Princeton 1993).

Lang 1956

M. Lang, Numerical Notation on Greek Vases, Hesperia 25, 1956, 1-24.

Lawall 2000

M. L. Lawall, Graffiti, Wine Selling, and the Reuse of Amphoras in the Athenian Agora, Ca. 430 to 400 BC, Hesperia 69/1, 2000, 3–90.

Lawall 2004

M. L. Lawall, Nothing to Do with Mendaian Amphoras? Athenaeus 11.784c, in: R. B. Egan – M. Joyal (eds.), Daimonopyla. Essays in Classics and the Classical Tradition Presented to Edmund G. Berry (Winnipeg 2004) 241–230.

Lazaridis et al. 1992

D. Lazaridis - A. Romiopoulou - I. Touratsoglou, Ο τύμβος της Νικήσιανης (Athens 1992).

Liampi 1998a

K. Liampi, A Hoard of Bronze Coins of Alexander the Great, in: R. Ashton – S. Hurter (eds.), Studies in Greek Numismatics in Memory of Martin Jessop Price (London 1998) 247–253.

Liampi 1998b

K. Liampi, Der makedonische Schild (Bonn 1998).

Liampi 2000

K. Liampi, The Circulation of Bronze Macedonian Royal Coins in Thessaly, in: C. C. Mattusch – A. Brauer – S. E. Knudsen (eds.), From the Parts to the Whole I, Acta of the 13th International Bronze Congress, held at Cambridge, Massachusetts, May 28 – June 1 1996, Portsmouth (Rhode Island 2000)

220-225.

Lilimbaki-Akamati - Stephani 2003

M. Lilimbaki-Akamati – L. Stephani, Ωναί εκ της Ημαθίας, ΑΕ 2003, 155–196.

Mac Isaac 1988

J. D. Mac Isaac, Phliasian Bronze Coinage, ANSMusNotes 33, 1988, 45-54.

Malama et al. 2000

P. Malama – M. Christopoulou – K. Darakis, Νεότερα στοιχεία από τις έρευνες στην περιοχή των Ν. Κερδυλλίων κατά τις εργασίες κατασκευής της Εγνατίας οδού, ΑΕrgoMak 14, 2000, 73–85.

Margaritis 2016

E. Margaritis, Agricultural Production and Domestic Activities in Rural Hellenistic Greece, in:

E. M. Harris – D. M. Lewis – M. Woolmer (eds.), The Ancient Greek Economy. Markets, Households and City-States (Cambridge 2016) 187–204.

Margaritis forthcoming

E. Margaritis, Olive and Vine Farming in Hellenistic Pieria. An Archaeobotanical Case Study of Settlements from Macedonia, Greece, BARIntSer, forthcoming.

Martin 1985

T. Martin, Sovereignty and Coinage in Classical Greece (Princeton 1985).

Morris - Papadopoulos 2005

S. P. Morris – J. K. Papadopoulos, Greek Towers and Slaves. An Archaeology of Exploitation, AJA 109, 2005, 155–225.

Mourati 2014

Α. Mourati, Σκεύη και εργαλεία από το "Κομπολόι". Συμβολή στη μελέτη μιας αγροικίας ελληνιστικών χρόνων από την Πιερία (Master's diss. Aristotle University, Thessaloniki 2014).

Myteletsis forthcoming

M. Myteletsis, The Study of Numismatic Material from Harbour Area of Herakleion (forthcoming).

Newell 1927

E. Newell, The Coinages of Demetrius Poliorcetes (London 1927).

Oikonomos 1921

G. Oikonomos, Τα νομίσματα του βασιλέως Κασσάνδρου, ΑΔ 4, 1918 (1921), 1-29.

Pantermalis 1999

D. Pantermalis, Δίον. Η ανακάλυψη (Athens 1999).

Papadopoulos - Paspalas 1999

J. Papadopoulos – S. Paspalas, Mendaian as Chalkidian Wine, Hesperia 68, 1999, 161–188.

Papaeuaggelou-Genakou 2004

K. Papaeuaggelou-Genakou, Ζητήματα μετρολογίας θεσσαλικών χαλκών νομισμάτων.

Η περίπτωση της Φάλαννας, in: L. Kypraiou (ed.), Το νόμισμα στο θεσσαλικό χώρο.

Νομισματοκοπεία, κυκλοφορία, εικονογραφία, ιστορία, Ovolos 7 (Athens 2004) 33-50.

Paulopoulou 2016

Ε. Paulopoulou, Η νομισματική κυκλοφορία στο Δίον ως τα χρόνια του Αυγούστου (Ph.D. diss. Aristotle University, Thessaloniki 2016).

Pingiatoglou 2015

S. Pingiatoglou, Δίον. Το ιερό της Δήμητρος (Thessaloniki 2015).

Pliakou 2002

G. Pliakou, Κρασί, λάδι και πορφύρα. Μαρτυρίες για τις παραγωγικές δραστηριότητες στην αρχαία Λευκάδα, Πρακτικά Ζ΄ Πανιονίου Συνεδρίου, Λευκάδα 26–30 Μαΐου 2002, Β΄ (Athens 2004) 47–78.

Portolos 1996

Portolos, Some Early Issues of Philip II, in: A. Tzamalis (ed.), Μνήμη Martin J. Price (Athens 1996) 111–118.

Poulaki 2003

Poulaki, Αγροικίες της περιοχής Φίλας. Ηρακλείου και Λειβήθρων του Μακεδονικού Ολύμπου, in: Adam-Veleni et al. 2003, 53-70.

Poulaki 2004

- E. Poulaki, Κομπολόι. Πιθεών και αγρέπαυλις σε αμπελώνα της χώρας των Λειβήθρων, in:
- G. A. Pikoulas (ed.), Οἶνον Ἱστορῷ ΙΙΙ. Επιστημονικό Συμπόσιο. Κτήμα Γεροβασιλείου, Επανομή Θεσσαλονίκης 15/5/2004 (Athens 2004) 45–56.

Poulaki-Pantermali 1998

E. Poulaki-Pantermali, Λειβήθρων ες χώρον, εμήν πατρίδα γαίαν, AAA 23–28 (1990–1995), 56–62.

Poulaki-Pantermali 2001

E. Poulaki-Pantermali, Έργα εθνικά και άλλα στην περιοχή του Μακεδονικού Ολύμπου, ΑΕrgoMak 15, 2001, 342–345.

Poulaki-Pantermali 2008

E. Poulaki-Pantermali, Λείβηθρα (Katerini 2008).

Poulaki-Pantermali 2013

E. Poulaki-Pantermali, Μακεδονικός Όλυμπος, Μύθος – ιστορία – Αρχαιολογία (Thessaloniki 2013).

Poulaki-Pantermali 2014

Ε. Poulaki-Pantermali, Οίκος – Οικία – Οικονομία, Πόλις – Πολιτική – Πολιτισμός (Thessaloniki 2014).

Poulios 1982

B. Poulios, Ταφικός θησαυρός χάλκινων νομισμάτων 4ου αι. π.Χ. από τον Άγιο Χριστόφορο νομού Σερρών, ΑΔ 37, Α, 1982, 188–202.

Poulios 2001

B. Poulios, Συμβολή στη μελέτη της χάλκινης νομισματοκοπίας των Αντιγονιδών από τον Αντίγονο Γονατά έως τους πρώτους χρόνους του Φιλίππου Ε. Η περίπτωση πέντε "θησαυρών" από την ανατολική Μακεδονία, ΑΔ 56, Α, 2001, 237–296.

Price 1991

M. J. Price, The Coinage in the Name of Alexander the Great and Philip Arrhidaeus, A British Museum Catalogue (Zurich 1991).

Pritchett 1956

W. K. Pritchett, The Attic Stelai II, Hesperia 25, 1956, 178-317.

Psoma 2001

S. Psoma, Olynthe et les Chalcidiens de Thrace: Études de numismatique et d'histoire (Stuttgart 2001).

Psoma 2009

S. Psoma, Tas Sitarchias kai tous Misthous. Bronze Currencies and Cash Allowances in Mainland Greece, Thrace and the Kingdom of Macedonia, RBelgNum 155 (2009) 3–38.

Psoma 2011

S. Psoma, The Kingdom of Macedonia and the Chalcidic League in: L. R. Fox (ed.), Brill's Companion to Ancient Macedon. Studies in the Archaeology and History of Macedon, 650 BC-300 AD (Leiden 2011) 113–135.

Psoma 2012

S. Psoma, Royal Bronze Coinages Versus Civic Bronze Coinages. The Tale of Two Stories for Greek History, in: M. Asolati – G. Gorini (eds.), I ritrovamenti monetali e i processi storico-economici nel momdo antico, Numismatica Patavina 12 (Padova 2012) 49–64.

Psoma et al. 2008

S. Psoma – C. Karadima – D. Terzopoulou, The Coins from Maroneia and the Classical City at Molyvoti. A Contribution to the History of the Aegean Thrace, Μελετήματα 62 (Athens 2008).

Reger 1994

G. Reger, Regionalism and Change in the Economy of Independent Delos (Berkeley 1994).

Robert 1949

L. Robert, Monnaie d'Ionie, Hellenica 7, 1949, 83-88.

Robert 1966

L. Robert, Monnaies antiques en Troade, Hautes études numismatiques 1 (Paris 1966).

Salviat 1986

F. Salviat, Le vin de Thasos, amphores, vin et sources excretes, BCH Suppl. 13, 1986, 145-196.

SNG Alpha

Sylloge Nummorum Graecorum Greece II. The Alpha Bank Collection. Macedonia I. Alexander I – Perseus (Athens 2000).

SNG Alpha 6

Sylloge Nummorum Graecorum, Greece 6. The Alpha Bank Numismatic Collection. From Thessaly to Euboea (Athens 2011).

SNG ANS 7

Sylloge Nummorum Graecorum, The Collection of the American Numismatic Society 7. Macedonia I: Cities, Thraco-Macedonian Tribes, Paeonian Kings (New York 1987).

SNG Cop.

Sylloge Nummorum Graecorum, The Royal Collection of Coins and Medals, Danish National Museum II: Thrace and Macedonia (West Milford, New Jersey 1982).

SNG München

Sylloge Nummorum Graecorum Deutschland. Staatliche Münzsammlung München 10/11, Makedonien: Könige Nr. 1–1228 (Munich 2001).

SNG Soutzos

Sylloge Nummorum Graecorum, Greece 5: Numismatic Museum, Athens. The A. G. Soutzos Collection (Athens 2007).

Stefani 2001

L. Stefani, Ανασκαφές στον άξονα της Εγνατίας. Η έρευνα στην περιοχή της Λευκόπετρας και
Μ. Σάντας, AErgoMak 15, 2001, 558-574.

Stefani 2002

L. Stefani, Οι ανασκαφές στη Μικρή Σάντα Βερμίου. Από τον προϊστορικό οικισμό στην ελληνιστική κώμη, ΑΕrgoMak 16, 2002, 545–556.

Stefani 2012

L. Stefani, ... ὄρος Βέρμιον ἄβατον ὑπὸ χειμῶνος. Landscape and Habitation in Semi-Mountainous Imathia, in: Tiverios et al. 2012. 26–63.

Stefanidou-Tiveriou 1998

Th. Stefanidou-Tiveriou, Ανασκαφή Δίου 1, Η οχύρωση (Thessaloniki 1998).

Steinhauer 2009

G. Steinhauer, Ιστορική Γεωγραφία του Αρχαίου Κόσμου. Ελλάδα και Ρώμη (Athens 2009).

Tiverios et al. 2012

M. Tiverios – P. Nigdelis – P. Adam-Veleni (eds.), Threpteria. Studies on Ancient Macedonia (Thessaloniki 2012).

Topalov 2009

S. Topalov, A Bronze Coin of the Type of Alexander III Re-Minted with Stamps of the Coin Type of Philip II, in: S. Drougou – D. Eugenidou (eds.), Κερμάτια Φιλίας. Τιμητικός τόμος για τον Ι. Τουράτσογλου, A (Athens 2009) 285–291.

Touratsoglou 1998

I. Touratsoglou, Στην αναζήτηση του ελληνικού χρυσού, in: M. Lilimpaki-Akamati – K. Tsakalou-Tzanavari (eds.), Μνείας Χάριν. Τόμος στη μνήμη Μαίρης Σιγανίδου (Thessaloniki 1998) 235–266.

Touratsoglou 2003

I. Touratsoglou, À la recherche du monnayage de bronze de Philippe II de Macédoine. Note préliminaire, BNumParis juin 2003, 97–101.

Touratsoglou 2006

I. Touratsoglou, Les Galates sous les pentes de l'Olympe. Le trèsor IV de Néos Panteléïmon, lieu – dit Krania, 2000, RNum 162, 2006, 99–116.

Touratsoglou 2010

Ι. Touratsoglou, Συμβολή στην οικονομική ιστορία του βασιλείου της αρχαίας Μακεδονίας (6ος-3ος αι. π.Χ.), ΚΕΡΜΑ ΙΙ, Λυδία Λίθος (Athens 2010).

Touratsoglou 2012

I. Touratsoglou, Coin Production and Numismatic Circulation in the Macedonian Kingdom During the Hellenistic Period, in: S. Drougou – I. Touratsoglou (eds.), Θέματα της Ελληνιστικής κεραμικής στην Αρχαία Μακεδονία (Athens 2012) 36–53.

Touratsoglou 2013

I. Touratsoglou, Τα νομισματικά πράγματα στις αγρεπαύλεις (villae rusticae) της επαρχίας Αχαΐα,
in: A. D. Rizakis – I. P. Touratsoglou (eds.), Villae Rusticae, Family and Market-Oriented Farms in
Greece under Roman Rule, Proceedings of an International Congress held at Patrai, 23–24 April
2010, Μελετήματα 68 (Athens 2013) 792–803.

Valassiadis 2005

C. Valassiadis, A Contribution to Cassander's Bronze Coinage, in: C. Alfaro – C. Marcos – P. Otero (eds.), Actas del XIII Congreso international de numismática, Madrid 2003 (Madrid 2005) 405–413.

Vasiliadou 2011

I. Vasiliadou, Η αγροτική ζωή στην αρχαία Πιερία. Αρχαιολογικά τεκμήρια (Thessaloniki 2011).

Wallace 2002

M. Wallace, Standardization in Greek Amphora Capacities, in: J. Eiring – J. Lund (eds.), Transport Amphorae and Trade in the Eastern Mediterranean, Acts of the International Colloquium at the Danish Institute at Athens, September 26–29, 2002, Monographs of the Danish Institute at Athens 5 (Aarhus 2004) 429–432.

Westermark 1989

U. Westermark, Remarks on the Regal Macedonian Coinage ca. 413–359 BC, in: G. Le Rider (ed.), Kraay – Mørkholm Essays. Numismatic Studies in Memory of C. M. Kraay and O. Mørkholm (Louvain 1989) 301–315.