

# Villae Rusticae at the Beroia Countryside (Macedonia, Greece)

Angeliki Koukouvou

In Greece, over the past three decades or so, there has been a dramatic increase in the archaeological research carried out in the framework of major public works. These large-scale excavations – mainly in the service of road and rail transportation – have indisputably marked a new chapter in the history of archaeological research in Greece; bearing in mind the many kilometres running through unexplored regions, it is easy to understand the task and the difficulties the Greek archaeologists had to deal with. Nonetheless, the result was the exploration of regions that had never been previously investigated and the discovery of a whole series of hitherto unknown archaeological sites.

One representative example was the construction works along the route of the modern Egnatia Highway, a motorway that runs for 670 km through Epirus, Macedonia and Thrace in northern Greece, in essence a bridge between east and west. The aim of this paper is to present two interesting cases of rural establishments that were excavated in the years 1999–2002 at the periphery of Beroia, a city in Emathia Prefecture (fig. 1).<sup>1</sup>



Fig. 1: Aerial photo of the two excavated sites (Paliomana and Asomata) at the periphery of Beroia, Emathia Prefecture (Macedonia, Greece).



### 1. 'Paliomana Stream' site

The first location named 'Paliomana Stream' (that means old source or old bank of river) is situated near the village Messi in the plain below the eastern foothills of Mount Vermion at about 4 km east of Beroia. The latter inhabited at least from the Iron Age



Fig. 2: Aerial photo of the excavation at Paliomana.



flourished in Hellenistic times and experienced through the Roman period a remarkable development in all aspects.

The excavation at the site revealed part of a Roman building, a farmhouse as we will argue later in detail. It is orientated N-S with preserved dimensions 32 × 25 m, approximately 800 sq.m. The north and south parts of the building were covered up by an auxiliary road and the National Highway respectively, so the research could not be continued (fig. 2. 3).

The walls indicate three successive construction phases. At the northern part of the excavated area we revealed hearths, ovens and pits cut on the rock-bed, used as storage pits, and at a later phase as depositors. The ash around the firing structures, along with other findings (fragments of cooking pots, an area covered with tiles, a fragment of millstone) allow us to assume that this area was used for food preparation and cooking.

In the centre of the excavated area we found the quite destroyed floor of a built rectangular vat (no. I). In contact with its walls, there were a stone built platform at the north and a large jar at the east. It is obvious that this installation was used as the treading platform for grape-pressing, what we call *lênos*. The runoff of grape flowed in the large jar, buried in the earthen floor (fig. 3). The well known mosaic floor from Patrai, Achaia gives us an iconographic paradigm.<sup>2</sup> The north wall of the vat continued



Fig. 3: View of the excavated villa rustica. In the centre the built rectangular vat (*lênos*) and the buried large jar for the runoff of grape.

to the east forming an oblong storage room sized approx. 3.20 × 21 m. It consisted of a series of rooms; vestiges of walls made of mudbricks were found at intervals of 3.5 m. Seven storage jars were interred up to rim height into the floor. Interred jars have been associated with the storage of wine as this positioning facilitated their use at the fermentation stage.<sup>3</sup>

Further to the east there was a double vat (no. III). The north part was smaller and its floor level lower than the south's, both of them lined inside with hydraulic mortar (fig. 4). According to their small dimensions and the mastoid cavities at their floors that facilitated the cleaning of the collected juice, they obviously acted as settling tanks for the must, called in literary sources *hypolênium*. Some finds give reasons to believe that relevant installations extended to the east, where we were not entitled to carry on the investigation. It is obvious that this was the wing of the establishment associated with the agricultural economy, the processing and storage of the goods of viticulture.<sup>4</sup>

Nevertheless, the most interesting feature of this farmhouse was a cistern (no. II), which unfortunately continued under the national road (fig. 3. 5). To the east of the cistern was a paved space made of small pebbles and pieces of tiles where two hearths were revealed. The cistern, 60 cm deep, was plastered with a strong hydraulic mortars and the water came by a clay pipe that ended in a lead part, vertically positioned to reach the level of the tank. The runoff was accomplished with a hole at the bottom of the east wall. Inside, embedded in the north and west walls and at a height of 20 cm from the bottom, clay pots with their open mouth in the tank formed blind openings with a diameter of 17 and a depth of 20 cm.

Cisterns are a common feature of Roman villas,<sup>5</sup> but the arrangement of a series of similar cells on the walls that we described above indicates that our cistern was constructed to be used as a fishpond. Cisterns of this type have been found in Pompeii, Herculaneum, Timgad, Africa, and Tsatalaka, Bulgaria.<sup>6</sup> Such constructions are described in the works of agricultural writers, as Varro and Columella. The latter advises: "there ought to be excavated in the sides of the pond what may be described as a series of similar cells, which may serve to protect the fish when they want to avoid the heat of the sun". These cells could also serve as a repository of fish fry, in line with contemporary practice in aquariums.<sup>7</sup>

The pottery that was gathered consisted of storage and cooking vessels, with a small number of table-ware, i.e. relief, black and red ware. Clay lamps, parts of figurines, glass vessels, loom weights, lead slags, bronze and iron tools were also found. The earlier chronological evidence of the site were eleven coins, autonomous issues of Pella, Thessaloniki and Amphipolis, coins that their circulation is dated from the 2<sup>nd</sup> third of 2<sup>nd</sup> century BC throughout the 1<sup>st</sup> century BC.<sup>8</sup> To these early findings, it has not been possible to link specific architectural remains. Of the three identified construction phases, the second one, this of the 2<sup>nd</sup>–3<sup>rd</sup> century AD seems to be the more ambitious: to the farmhouse of that period belong most of the finds<sup>9</sup> and the installations: the wine-press and the storage room, the collection vats, and the fish pond. The farmhouse





Fig. 4: The double vat used as *hypolênium*.





Fig. 5: The cistern, used as a fishpond, with the embedded clay pots in its walls.

must have suffered greatly after the middle of the 3<sup>rd</sup> century AD, when we know that the descending Goths and Heruli towards south Greece have swept everything at their passage, but was not abandoned until at least the late 4<sup>th</sup> century AD when it was probably hit again by the barbarian invasions. The dispersion of coins of the 4<sup>th</sup> century AD indicates that in this last phase the inhabitants used only parts of the farmhouse and constructed some new walls with re-used material. The destruction layers give us an image of abandonment and gradual decline at the late 4<sup>th</sup>–early 5<sup>th</sup> century AD.

Despite the restrictions of the short in time and space research and the partly investigated farmhouse, we should try to summarize our data and conclusions.

The revealed vestiges lie some 4 km away from Beroia, in the area where the territory, the *chôra* of the ancient city, stretched. The site is situated along the ancient S-N main route leading from Thessaly through Dion, Pydna and Beroia to Thessaloniki and near the Aliakmon River that ensured an abundance of water.<sup>10</sup>

The character of the finds and the architectural remains, i.e. the installations related to the processing and production of wine, the storage rooms with *pithoi*, the fish tank (a *vivarium*) indicate that they belong to a building complex in an agricultural property. Furthermore, the *vivarium*, a fish tank built according to the instructions of the Roman specialists, intended for the preservation of fresh fish and for their reproduction as shown by its special arrangement, is certainly in accord with the sophisticated taste

and tendency of the Roman aristocracy to wealth ostentation and suggests that this is probably not the case of a small farmhouse but the *pars rustica* of a villa in an estate.<sup>11</sup> These large complexes include the necessary immovable installations and movable implements for the industrial part of the villa (wine-presses, water tanks, kitchen, pithoi in the storage section of the villa etc.) but also the residential buildings for the owners and the workers. Some finds, such as tesserae and substrates from mosaic floors, are indications that under the nearby motorway there is the *pars urbana* of our villa, an integral part of such an installation, according to all ancient writers dealing with agricultural production.<sup>12</sup>

## 2. Asomata site

On the second site, on a natural plateau at the south-eastern slopes of Mount Bermion, near the modern settlement of Asomata – also 4 km of Beroia but now to the SE – the excavation revealed remains that covered a wide chronological range: from the late Neolithic to the post-Byzantine era (fig. 6).<sup>13</sup> They consisted of grave clusters that belonged to different periods, but also the remains of buildings, workshops and quarries. In this paper, we present shortly those that date to Roman times.



Fig. 6: Aerial photo of the excavation at Asomata.





Fig. 7: The vertical, two-story rectangular kiln. The clay floor was pierced by four regularly spaced double series of vents that drew the high temperatures from the lower level of the combustion chamber to the upper level of the firing chamber.



In the centre of the total excavated area of app. 900 ha the remains that were revealed belonged to the instalments of a ceramic workshop. A vertical, two-story rectangular kiln that measured app.  $2 \times 3$  m. and had an estimated capacity of  $9 \text{ m}^3$  was found (fig. 7).<sup>14</sup> It comprised an intact lower combustion chamber of 82 cm height and a slightly damaged perforated clay floor, the *eschara*. The perforated clay floor was strongly supported by three pairs of parallel cross-walls bridged with arches. The vaulted stokehole (l. 140, w. 94 cm) was placed on the south side of the combustion chamber that was more protected from the winds but the kiln had also a rear smaller stokehole, which was found closed, probably for the better control of the heat distribution. In contact with the west wall of the kiln there was a 3 m wide rubble wall that reinforced the construction and protected the nearby buildings.

To the west of the kiln, remains of Roman times buildings came to light, which served the needs of the ceramic workshop. Around these facilities, there was an open-air free space terrain: at the natural bedrock that had been carefully levelled, we found clay and rock-cut water canals, rectangular and circular pits, some of them symmetrically arranged. These structures, obviously associated with the operation of the kiln, were necessary for the water supply, the clay levigation and maturation, the formation of the product and the drying prior to the firing process. The existence of installations and other evidence for ceramic products, pottery, tile and brick manufacture at rural sites is frequent. For the majority of those kiln sites, for which evidence is available, the main reported products especially of rectangular kilns are brick and tile.<sup>15</sup>

Not far away to the west, bath installations were partially revealed: a subterranean hall measuring  $8.5 \times 3$  m with 9 rectangular pillars made of tiles (hypocausts) that supported a very fragmented marble floor made of large tesserae of green colour. To the north, in an area of ash and carbon layers, we found a bath furnace, the essential component of ancient baths that heated the water, the so-called *praefurnium*. Nearby, two circular tanks, coated with hydraulic plaster that provided the necessary water were found.

The bath facilities and the ceramic workshop installations revealed to reinforce the assumption that we are dealing again with the remains of a Roman villa. The numismatic evidence and the  $\text{C}^{14}$  radio chronologies of the Roman installations at Asomata give us a time span from the 1<sup>st</sup> century BC throughout the 2<sup>nd</sup> century AD. There is little doubt that we are dealing with the remains of a large organized villa including and other amenities, which extended in the area out of the road occupation limit.

### Discussion

In other areas of the Roman world the archaeology of rural settlement has a history going back to the 17<sup>th</sup> and 18<sup>th</sup> century.<sup>16</sup> In contrast, the excavation and study of such sites in Greece (as opposed to other site types) has not scored high on the archaeological

agenda. However, in the past three decades, the amount of scholarship regarding this investigation has increased dramatically as a result of intense archaeological activity in the framework of major public works.<sup>17</sup> The results are the rewriting of the archaeological map of Greece and, following the international trend, a renewal of scholarly interest in the economic history of the countryside, fields completely new for classical archaeologists and historians, but extremely promising for the future. The research gap in rural area still exists but is constantly decreasing. A great number of villas, farmhouses and agricultural facilities either have been excavated, located or have been recognised as such by finds. The data show that the diffusion of the new model of space organisation and rural strategy, i.e. the *villa rustica*, appears in the Greek landscape from the end of the 1<sup>st</sup> century AD onwards connected with intensive cultivation and some kind of specialisation.<sup>18</sup>

As it concerns Macedonia, even if it is difficult to derive safe conclusions, the general picture is getting more and more clear and give us the opportunity to a better understanding of the rural strategies implied in the Macedonian countryside and the interrelations of the latter with its urban centres considering production, distribution and consumption of supplies.

The two partly excavated rural villas that we presented were unearthed in the proximity of Beroia, one of the most important cities of the Roman Province of Macedonia. Rural establishments of this kind were located primarily in lowland (as in Paliomana), but also in the foothills of the region (as in Asomata) in the periphery of cities and along the course of ancient roads or close to them, facilitating traffic, the transportation of goods and commerce. Unfortunately, nearly none of them has been completely excavated and published, not only in Macedonia but also in the rest of Greece, and so we lack their complete form.<sup>19</sup>

The fact that according to the evidence both our *villae rusticae* had a *pars urbana* offering urban facilities (i.e. hypocaust floors of baths, rooms with mosaics, etc.)<sup>20</sup> suggests long term occupation rather than periodic use of a site for agricultural activities or storage. In other words, they were country houses that unified the agricultural and workshop production along with the comfortable residential unit, the productivity with the elegance.<sup>21</sup>

This is certainly the case of the partly unearthed villas in the rural area of the nearby Naousa, at Kamara, Baltaneto and Tsifliki where rooms with mosaic floors and bath facilities came to light.<sup>22</sup> These villas were situated in the periphery of Mieza, a very important Macedonian city in early Hellenistic times that during Roman period had most probably, maintained the status-quo of polis, according to recent epigraphic evidence.<sup>23</sup>

It has been argued, rightly in my view, by Rizakis, that changes in land property and exploitation, as well as a reordering of agricultural strategy, were more needed when the land was situated near populous metropoleis.<sup>24</sup> This is, without doubt, the case of Beroia that shortly after the Roman conquest quickly gained one of the most prominent positions in the province. It was the headquarters of *Koinon* of the Macedonians and



had been granted the exclusive right for the title of *neokoros* – twice – and that of a *metropolis*. The prosperity and the flourish of a city of international repute during the first three centuries, certified not only by the epigraphic sources but also by the archaeological evidence,<sup>25</sup> are mainly due to the exploitation of the countryside that offers great geomorphologic advantages: the basin of Beroia area consists of a well watered by the Aliakmon River inlaid plain. The villas were the nucleus of the large estates, the “*choria*” and the relationship between the owners of these estates in the city periphery and those of the luxury city dwellings is a very close one; they both belong to the same urban elite according to the epigraphic sources.<sup>26</sup>

Local elite families, possibly wealthy Greek landowners of neighbouring cities and Roman and Italian ‘immigrants’, chose to invest in land. Agriculture was considered a secure, socially respectable investment and frequently the means to improve one’s social standing.<sup>27</sup> The acquisition of land was made possible thanks to the privileges of the ἔγκτησις (*enktesis*). In the 2<sup>nd</sup> and especially in the 1<sup>st</sup> century BC Roman businessmen known as *negotiatores*, alone or in groups are settling in the fertile lands and enhance their economic strength from the exploitation and trade of agricultural production.<sup>28</sup> A few attestations of Ῥωμαῖοι ἐνκεκτημένοι as a group are to be dated to the 1<sup>st</sup> century BC, in Beroea (57–55 BC).<sup>29</sup>

The bourgeois local elite and Roman settlers earned their wealth from the exploitation of large farms at a time when the land is valued as a source of prestige. Meanwhile, they had a prominent political, social and religious presence in the city mirrored in their *euergetiai*, following Hellenistic practices and internalising Roman policies.<sup>30</sup> Unfortunately, the accumulated surplus was always used by the elites either for their personal consumption or for unproductive investments such as the construction of prestigious buildings or the financing of games and festivals, which proliferated enormously during the Empire. To the latter the epigraphic sources from Beroia are quite explicit and rather early.<sup>31</sup>

The Romans certainly played a role in the pattern of rural settlements in Roman Greece and gave a new impetus to rural life. It would be, however, an exaggeration to suppose that they totally transformed the agricultural economy. In fact, the concentration of land into the hands of the local aristocrats has rooted in the late Classical and Hellenistic era. We have clear epigraphic evidence for this from the nearby city of Mieza, where, in a marble plaque with ten deeds of sale, we see that a certain Zopyros, son of Gorgias, made massive purchase of land.<sup>32</sup>

As we have seen, in the Roman period the *villae rusticae* are a novel type of farm that represents the changes in the Greek landscape. These villas are the basic economic units of processing and storage of the agricultural production, the symbol of new methods of land exploitation and new agrarian practices. The hypothesis that, at least in some of the big *villae rusticae* found in the Greek countryside, the methods of exploitation were analogous to those practiced in the large estates in Italy, where slaves as well as free smallholders were used for seasonal agricultural needs, is argued on the

basis of epigraphic references to ‘managers’ of these large estates (e.g. vilici, actores, procuratores, oikonomoi, phrontistai etc.), often liberti of the absentee landowners, who managed a staff of further freedmen.<sup>33</sup>

In fact, the principal goal of the villae of Roman type is not subsistence farming but rather the production of agricultural surplus products that are marketable and produce a profit. This fact explains why the majority of these farms are situated on easily drained sites, on main or secondary roads, along rivers or near lakes and sea, near urban centres that demanded goods (a great number of the villae of the imperial period lie within a radius of about five or six km from the town). The obvious conclusion is that these farmsteads, symbol of a new relationship between the city and its countryside, are dependent on the city.<sup>34</sup> Furthermore, it seems that the villa ‘phenomenon’ in Roman provinces is also connected to the increasing taste for and use of Roman building materials, techniques, and styles, something evident in the villas we presented. The adoption of both the architectural language and lifestyle of the villa in the provinces rendered villas as one of the explicit markers of ‘Romanisation’.<sup>35</sup>

### Epilogue

Unfortunately, all that we have is in fact a “snapshot” of centuries of rural activity. These archaeological snapshots are usually lifeless images of ruins, destruction and loss; they lack the sense of life that we luckily find in literature, like in the popular novels of the 2<sup>nd</sup> century, the era that our villa flourished. Work of Pseudo-Lucian, the “Lucius, or The Ass” is an unpretentious satirical text that tells a funny story in a casual and light-hearted manner, with no moralising or didacticism.<sup>36</sup>

Through the adventures of the main character, Lucius, we travel in Roman Macedonia and we visit cities and countryside. The young Lucius, who is turned into an ass by magic, visits the large and populous city of Beroia. The Lucius-ass was offered for auction sale at the Beroia’s marketplace, he wandered its country and villages, and – a happy coincidence – was hosted by a wealthy landowner in his villa, where he invaded the dinner party turning the lamps upside down. The only intact lamp of our excavation that dates back to the middle of the 3<sup>rd</sup> century AD depicts a female figure in an erotic scene with an ass, a depiction inspired by the well-known love-making episode of the novel (fig. 8).<sup>37</sup> We recognise our transformed in ass Lucius, who spent a passionate night with a lady of great wealth and beauty after her request. I am sure that this erotic lamp had been useful in many ways in the dinner parties given in our villa that we were lucky to unearth.





Fig. 8: Lamp (mid 3<sup>rd</sup> cent. AD) found in the villa rustica. It depicts a female figure in an erotic scene with an ass. The depiction is inspired by the well-known love-making episode of the Pseudo-Lucian's novel 'Lucius or the Ass'.

## Notes

- <sup>1</sup> Koukouvou 1999; Koukouvou 2000; Koukouvou 2001; Koukouvou 2004.
- <sup>2</sup> For parallels in Boiotia: Vlachogianni 2013; Kountouri – Petrocheilos 2013. For the villa with the mosaic Stavropoulou-Gatsi – Alexopoulou 2013, 101 fig. 16, 131. 132 note 110.
- <sup>3</sup> See Grigoropoulos 2013, 773. 774 notes 44. 45. The interior of the jars and the amphorae were coated with a black residue, probably pitch, see Vassiliadou 2021, in present volume.
- <sup>4</sup> Petropoulos 2013, 169 figs. 17–21. For archaeological and documentary evidence concerning wineries in Graeco-Roman Egypt, Dzierzbicka 2005.
- <sup>5</sup> Dyson 1983, 127, fig. 227.
- <sup>6</sup> Jashemski 1979, 108–110 no. 94 fig. 178. 180; Cagnat 1912, 113. 114; Nikolov 1976, 8 no. 13.
- <sup>7</sup> Varro De Re Rustica 3, 17, 2; Colum. De Re Rustica 8, 17, 6.
- <sup>8</sup> Kourempas 2011.
- <sup>9</sup> 61 bronze coins and 1 silver were found. The 3<sup>rd</sup> cent. AD coins constitute the largest group.
- <sup>10</sup> This is the commonest distance (2.5 miles) between a villa and a city. On the city and chora, see Bintliff 2006. On the road system of the region: Hatzopoulos – Loukopoulou 1987, 21–55. On Beroia: Papazoglou 1988, 142. 143. 146. 147; Hatzopoulos 1990. EKM I, 41.
- <sup>11</sup> For the fish tanks, see Meirat 1964, 135; Lafaye 1969; Davaras 1974; Beelli Marchesini – Blanck 1999; Rossiter 1989, 109; Higginbotham 1997 with bibliography.
- <sup>12</sup> For villae rusticae, see Rossiter 1978, 3, 29–38 and for Greece, lately Rizakis – Touratsoglou 2013.
- <sup>13</sup> See note 1.
- <sup>14</sup> Type IIc: Hasaki 2002, 172. 173. 175. 176. 248, pl. III.13. 16. According to Hasaki – Raptis 2016, 214, fig. 5 f, its estimated capacity was of 9 m<sup>3</sup>.
- <sup>15</sup> Grigoropoulos 2013, 777 note 65; Hasaki 2002, 308.
- <sup>16</sup> Grigoropoulos 2013, 763. 764; Dyson 2003.
- <sup>17</sup> Koukouvou – Stefani 2002.
- <sup>18</sup> See Rizakis 2013, 35–40; Alcock 1993, 64–71.
- <sup>19</sup> Alcock 1993, esp. 55–92. 108. 109; Rizakis 1995. For Macedonia, see Adam-Veleni et al. 2003.
- <sup>20</sup> Rizakis 2013, 47 note 134.
- <sup>21</sup> Zarmakoupi 2013, 754. 755.
- <sup>22</sup> Koukouvou – Psarra 2011, 224 notes 18. 19.
- <sup>23</sup> For the city's status quo see Hatzopoulos 2011 and recently EKM II, 161–201.
- <sup>24</sup> See Rizakis 2013, 34.
- <sup>25</sup> For the epigraphic evidence, see EKM I. See also Brocas-Defflassieux 1999.
- <sup>26</sup> See EKM I, 40. Petsas 1983, 242; Tataki 1988, nos. 692. 722. On *choria*, see also Hatzopoulos 1990, 57–66.
- <sup>27</sup> For Peloponnesus see Rizakis 2013, 24. 25 note 18.
- <sup>28</sup> Alcock 1993, 75–78.
- <sup>29</sup> Zoumbaki 2013, 56 note 14. Tataki 1988, no. 666 and p. 438. 439 with bibliography. Rizakis 1986. Hatzopoulos – Loukopoulou 1992, 48. 52. 83. 347–357; Velenis 1996; Ramgopal 2017.
- <sup>30</sup> Zarmakoupi 2013.
- <sup>31</sup> Rizakis 2013, 49 note 147. For Beroia see EKM I, no. 68. 69. 117. 118. 119.



- <sup>32</sup> Rizakis 2013, 24. 25 notes 18. 19. For Mieza see Hatzopoulos 2011. EKM II, 174–183.
- <sup>33</sup> Papazoglou 1982, 200. 201; Tataki 1988, 457, 479. 480; Voutiras 1997. For latifundia in Greece: Rizakis 1995; Tiologos 1995. See also lately Nigdelis 2017.
- <sup>34</sup> Rizakis 2013; Rizakis 2014; Rizakis 2016.
- <sup>35</sup> Generally on the phenomenon of villa culture in Greece, see Zarmakoupi 2013.
- <sup>36</sup> Bruneau 1965; Mason 1994.
- <sup>37</sup> Lukian. Lucius or Ass 34. For close parallels: Chrzanovski – Zhuravlev 1998 and BCH 104 (1980) 604, fig. 50.

### Image Credits

Fig. 1–7: Copyright by Hellenic Ministry of Culture and Sports, Ephorate of Antiquities of Imathia. –  
 Fig. 8: Photo taken by Manos Stefanidis, copyright by Hellenic Ministry of Culture and Sports, Ephorate of Antiquities of Imathia.

### References

#### **Adam-Veleni et al. 2003**

P. Adam-Veleni – E. P. Poulaki – K. Tzanavari, *Αρχαίες αγροικίες σε σύγχρονους δρόμους* (Athens 2003).

#### **Alcock 1993**

S. E. Alcock, *Graecia Capta. The Landscapes of Roman Greece* (Cambridge 1993).

#### **Belelli Marchesini – Blanck 1999**

B. Belelli Marchesini – H. Blanck, *Piscinarii. Römische Villenbesitzer und ihre Fischliebhaberei*, AW 30/2, 1999, 157–168.

#### **Bintliff 2006**

J. L. Bintliff, *City-Country Relationships in the ‘Normal Polis’*, in: R. M. Rosen – I. Sluiter (eds.), *City, Countryside, and the Spatial Organization of Value in Classical Antiquity* (Leiden 2006) 13–32.

#### **Brocas-Defflassieux 1999**

L. Brocas-Defflassieux, *Béroia, Cité de Macédoine. Etude de topographie antique* (Veria 1999).

#### **Bruneau 1965**

P. Bruneau, *Illustrations Antiques du coq et de l’âne de Lucien*, BCH 89, 1965, 349–357.

#### **Cagnat 1912**

R. Cagnat, *Carthage, Timgad, Tébessa et les villes antiques de l’Afrique du Nord* (Paris 1912).

#### **Chrzanovski – Zhuravlev 1998**

L. Chrzanovski – D. Zhuravlev, *Lamps from Chersonesos in the State Historical Museum Moscow* (Rome 1998) 121–125.

#### **Davaras 1974**

C. Davaras, *Rock-cut Fish Tanks in Eastern Crete*, BSA 69, 1974, 87–93.

**Dyson 1983**

S. L. Dyson, *The Roman Villas of Buccino*, BAR 187 (Oxford 1983).

**Dyson 2003**

S. L. Dyson, *The Roman Countryside* (London 2003).

**Dzierzbicka 2005**

D. Dzierzbicka, *Wineries and their Elements in Graeco-Roman Egypt*, *JJurP* 35, 2005, 9–91.

**EKM I**

L. Gounaropoulou – M. B. Hatzopoulos, *Επιγραφές Κάτω Μακεδονίας Α. Επιγραφές Βέροιας* (Athens 1998).

**EKM II**

L. Gounaropoulou – P. Paschidis – M. B. Hatzopoulos, *Επιγραφές Κάτω Μακεδονίας Β* (Athens 2015).

**Grigoropoulos 2013**

D. Grigoropoulos, *Roman Pottery in the Greek Countryside. Some Notes on the Evidence from Rural Sites*, in: Rizakis – Touratsoglou 2013, 762–791.

**Hasaki 2002**

E. Hasaki, *Ceramic Kilns in Ancient Greece: Technology and Organization of Ceramic Workshops* (Ph.D. diss. University of Cincinnati 2002).

**Hasaki – Raptis 2016**

E. Hasaki – K. Raptis, *Roman and Byzantine Ceramic Kilns in Greece (1<sup>st</sup>–15<sup>th</sup> c. CE). Continuities and Changes in Kiln Typology and Spatial Organization of Production*, in: S. Pallecchi – B. M. Giannattasio – N. Cucuzza (eds.), *Archeologia delle produzioni ceramiche nel mondo antico: Spazi, prodotti, strumenti e tecniche. Atti del Convegno – Genova 1–2 dicembre 2014* (Ariccia 2016) 209–229.

**Hatzopoulos 1990**

M. B. Hatzopoulos, *Χώρα και κώμες της Βέροιας*, in: D. Lazaridēs (ed.), *Μνήμη Δ. Λαζαρίδη, Πόλις και χώρα στην αρχαία Μακεδονία και Θράκη. Μνήμη Δ. Λαζαρίδη. Πρακτικά Αρχαιολογικού Συνεδρίου, Καβάλα 9–11 Μαΐου 1986* (Thessaloniki 1990) 57–66.

**Hatzopoulos 2011**

M. B. Hatzopoulos, *A List of Sales from Mieza and the Constitution of Extensive Landed Properties in the Central Macedonian Plain*, *Tekmeria* 10, 2011, 47–69.

**Hatzopoulos – Loukopoulou 1987**

M. B. Hatzopoulos – L. D. Loukopoulou, *Two Studies in Ancient Macedonian Topography* (Athens 1987).

**Hatzopoulos – Loukopoulou 1992**

M. B. Hatzopoulos – L. D. Loukopoulou, *Recherches sur les marches orientales des Temenides. Anthemonte-Kalindoia* (Athens 1992).

**Higginbotham 1997**

J. A. Higginbotham, *Piscinae. Artificial Fishponds in Roman Italy* (Chapel Hill 1997).



**Jashemski 1979**

F. Jashemski, *The Gardens of Pompeii, Herculaneum, and the Villas Destroyed by Vesuvius* (New York 1979).

**Koukounou 1999**

A. Koukounou, Ανασκαφική έρευνα στον άξονα της Εγνατίας οδού. Νομός Ημαθίας, *AErgoMak* 13, 1999, 567–578.

**Koukounou 2000**

A. Koukounou, Ανασκαφική έρευνα στον άξονα της Εγνατίας οδού. Ασώματα Βεροίας, *AErgoMak* 14, 2000, 563–574.

**Koukounou 2001**

A. Koukounou, Ανασκαφική έρευνα στον άξονα της Εγνατίας οδού. Ασώματα Βεροίας, *AErgoMak* 15, 2001, 575–586.

**Koukounou 2004**

A. Koukounou, Παλιομόννα Μέσης και Ασώματα Βέροιας. Η έρευνα δύο νέων αρχαιολογικών θέσεων με αφορμή την του άξονα της νέας Εγνατίας οδού, in: Γνωριμία με τη Γη του Αλεξάνδρου. Η περίπτωση του Νομού Ημαθίας. Ιστορία – Αρχαιολογία, Πρακτικά επιστημονικής Διημερίδας του Κέντρου Ιστορίας Θεσσαλονίκης, Thessaloniki, 7–8 June 2003 (Thessaloniki 2004) 55–70.

**Koukounou – Stefani 2002**

A. Koukounou – E. Stefani, Archaeological Research and Major Public Works, in: 8<sup>th</sup> EAA Annual Meeting, 24–29 September 2002, Abstracts Book (Thessaloniki 2002) 152.

**Koukounou – Psarra 2011**

A. Koukounou – E. Psarra, Η αγορά της αρχαίας Μιέζας. Η δημόσια όψη μιας σημαντικής μακεδονικής πόλης, in: Η Αγορά στη Μεσόγειο από τους ομηρικούς έως τους ρωμαϊκούς χρόνους, Πρακτικά διεθνούς επιστημονικού συνεδρίου, Cos, 14–17 April 2011 (Athens 2011) 223–238.

**Kountouri – Petrocheilos 2013**

E. Kountouri – N. Petrocheilos, Αγροτικές εγκαταστάσεις και εκμετάλλευση της γης στην περιοχή της Χαιρώνειας/Rural Settlements and the Exploitation of Land in the Plain of Chaeronea, in: Rizakis – Touratsoglou 2013, 542–553.

**Kourempanas 2011**

Th. Kourempanas, The Chronology of the Hellenistic Coins of Thessaloniki, Pella and Amphipolis, in: N. Holmes (ed.), Proceedings of the XIV<sup>th</sup> International Numismatic Congress, Glasgow 1–3 September 2009 (Glasgow 2011) 251–255.

**Lafaye 1969**

G. Lafaye, Vivarium, in: Daremberg – Saglio 5 (Paris 1969) 959–962.

**Mason 1994**

H. J. Mason, Greek and Latin Versions of the Ass-Story, *ANRW* II 34, 2 (Berlin 1994) 1665–1707.

**Meirat 1964**

J. Meirat, *Marines antiques de la Méditerranée* (Paris 1964).

**Nikolov 1976**

D. Nikolov, The Thraco-Roman Villa Rustica near Chatalka, Stara Zagora, Bulgaria, *BAR* 17 (Oxford 1976).

**Nigdelis 2017**

P. M. Nigdelis, Iulii. A Note on the History of a Family of Macedoniarchs from Eastern Macedonia, in: *Social Dynamics under Roman Rule. Mobility and Status Change in the Provinces of Achaia and Macedonia*, Proceedings of a Conference Held at the French School of Athens, 30–31 May 2014 (Athens 2017) 281–285.

**Papazoglou 1982**

F. Papazoglou, Η Μακεδονία υπό τους Ρωμαίους, in: *Μακεδονία. 4000 χρόνια ελληνικής ιστορίας και πολιτισμού* (Athens 1982) 200. 201.

**Papazoglou 1988**

F. Papazoglou, Les villes de Macédoine à l'époque romaine, BCH Suppl. 16 (Athens 1988).

**Petropoulos 2013**

M. Petropoulos, Μόνιμες εγκαταστάσεις και κινητά σκεύη για την αγροτική παραγωγή στις ρωμαϊκές αγροικίες της Πάτρας/Immovable Installations and Movable Implements of the Agrarian Production in the Roman Villas of Patras, in: Rizakis – Touratsoglou 2013, 154–175.

**Petsas 1983**

Ph. Petsas, Μήτηρ θεῶν Ἀυτόχθων. Unpublished Manumission Inscriptions from Macedonia, in: *Ancient Macedonia 3, Papers Read at the International Symposium Held in Thessaloniki, September 21–25 1977* (Thessaloniki 1983) 229–246.

**Ramgopal 2017**

S. Ramgopal, One and Many. Associations of Roman Citizens in Greece, in: A. D. Rizakis – F. Camia – S. Zoumbaki (eds.), *Social Dynamics under Roman Rule. Mobility and Status Change in the Provinces of Achaia and Macedonia*, Proceedings of a Conference Held at the French School of Athens, 30–31 May 2014 (Athens 2017) 407–425.

**Rizakis 1986**

A. D. Rizakis, Η κοινότητα των “συμπραγματευόμενων Ρωμαίων” της Θεσσαλονίκης και η ρωμαϊκή οικονομική διείσδυση στη Μακεδονία, in: *Ancient Macedonia 4, Papers Read at the Fourth International Symposium Held in Thessaloniki, September 21–25, 1983* (Thessaloniki 1986) 510–524.

**Rizakis 1995**

A. D. Rizakis, Grands domaines et petites propriétés dans le Péloponnèse sous l'empire, in: *Du latifundium au latifondo. Un héritage de Rome, une création médiévale ou moderne?*, Actes de la table ronde internationale CNRS, Bordeaux 17–19 décembre 1992 (Paris 1995) 219–238.

**Rizakis 2013**

A. D. Rizakis, Rural Structures and Agrarian Strategies in Greece under the Roman Empire, in: Rizakis – Touratsoglou 2013, 20–51.

**Rizakis 2014**

A. D. Rizakis, Town and Country in Early Imperial Greece, *Pharos* 20/1, 2014, 241–267.

**Rizakis 2016**

A. D. Rizakis, Statut foncier, habitat rural et pratiques agricoles en Grèce sous l'Empire, in: F. Lerouxel – A.-V. Pont (eds.), *Propriétaires et citoyens dans l'Orient romain*, Scripta Antiqua 84 (Bordeaux 2016) 51–67.



**Rizakis – Touratsoglou 2013**

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 (Athens 2013).

**Rossiter 1978**

J. J. Rossiter, *Roman Farm Buildings in Italy*, BAR 52 (Oxford 1978).

**Rossiter 1989**

J. J. Rossiter, *Roman Villas of the Greek East and the Villa in Gregory of Nyssa Ep. 20*, JRA 2, 1989, 101–110.

**Stavropoulou-Gatsi – Alexopoulou 2013**

M. Stavropoulou-Gatsi – G. Alexopoulou, *Αγροικίες της Πάτρας και της χώρας της/Farmhouses in Patrai and his Territory*, in: Rizakis – Touratsoglou 2013, 88–153.

**Tataki 1988**

A. Tataki, *Ancient Beroea. Prosopography and Society*, Μελετήματα 8 (Athens 1988).

**Tirolagos 1995**

G. Tirolagos, *Peut-on prouver l'existence de latifundia sur le territoire de Philippes en Macédoine?*, in: *Du latifundium au latifondo. Un héritage de Rome, une création médiévale ou moderne? Actes de la table ronde internationale du Centre national de la recherche scientifique*, Bordeaux les 17–19 décembre 1992 (Paris 1995) 239–242.

**Vassiliadou 2018**

I. Vassiliadou, *Pierian-Macedonian Pitch. A Brand Name Agricultural Product of Ancient Macedonia*, in: Martin Bentz – Michael Heinzelmänn (Eds.), *Sessions 2–3, Single Contributions. Archaeology and Economy in the Ancient World 53* (Heidelberg, Propylaeum 2021) 333–346.

**Velenis 1996**

G. M. Velenis, *Συμπραγματευόμενοι Ρωμαίοι σε μια νέα επιγραφή της Θεσσαλονίκης*, Tekmeria 2, 1996, 8–15.

**Vlachogianni 2013**

E. Vlachogianni, *Αγροικία ρωμαϊκών χρόνων στην αρχαία Ακραίφια (Ακραίφνιο Βοιωτίας)/Roman Villa at Ancient Akraiphia (Akraiphnion in Boeotia)*, in: Rizakis – Touratsoglou 2013, 486–509.

**Voutiras 1997**

E. Voutiras, *In locum domini. Un vilicus et sa famille*, ZA 47, 1997, 227. 228.

**Zarmakoupi 2013**

M. Zarmakoupi, *The Villa Culture of Roman Greece*, in: Rizakis – Touratsoglou 2013, 752–761.

**Zoumbaki 2013**

S. Zoumbaki, *In Search of the Horn of Plenty. Roman Entrepreneurs in the Agricultural Economy of the Province of Achaïa*, in: Rizakis – Touratsoglou 2013, 52–73.