

The Trade of Adriatic Wine in the Southern Iberian Peninsula and its Connection with the Economic and Social Transformations in the Context of the Roman Civil Wars¹

Daniel Mateo Corredor

Introduction

Since the last 3rd of the 2nd century BC, coinciding with an important increase of the Italic imports in the Mediterranean, a change occurred in the amphorae used for transporting wine. Greco-Italic amphorae give way to two containers of higher resistance and size. The Dressel 1, produced mainly on the Tyrrhenian coast, but widely imitated in other Mediterranean areas, and the Lamboglia 2, the container in which the wines produced on both shores of the Adriatic coast would be traded.² Both types were produced and traded during more or less the same period, roughly from the last third of the 2nd century until the last quarter of the 1st century BC. This explains their frequent comparison in studies about the trade of Italian wine during the late Republican period. These two amphorae present an unequal distribution in the western and eastern Mediterranean. Traditionally, it has been accepted that Dressel 1 amphorae supplied the western part of the Mediterranean, while the Lamboglia 2 supplied the eastern area, especially in the Aegean, with only a minor presence in the western part.³ Thus, although there is much more information published in the west than in the east, the map published by Lindhagen (fig. 1) shows that the concentration of the remains is much higher in the scarce eastern sites with quantitative data available.

The Lamboglia 2 in the Southern Iberian Peninsula

If the proportional presence of the Lamboglia 2 is analysed in comparison to the Dressel 1, the latter prevails widely in the western Mediterranean, with one exception, the south of the Iberian Peninsula. Here, we find two areas where the presence of the Adriatic type is similar than the evidences of Dressel 1 (fig. 2).⁴

The main area is located in the southeast, where Molina Vidal⁵ already showed that Lamboglia 2 had similar values as Dressel 1 in an area that extends from Cape San Antonio to the Gulf of Mazarrón, with sites like Lucentum,⁶ Ilici, Carthago Nova, and Loma de Herrerías. Recent quantitative amphorae analyses carried out by the author in other sites from Andalucía,⁷ have allowed us to confirm this phenomenon and expand this area to the coasts of Almería; sites like Baria and Abdera reached similar proportions of both types, with 64,4% in Baria and 36,8% in Abdera. Moreover, a similar situation has been identified in the southwestern area, which would extend at least from Baelo to

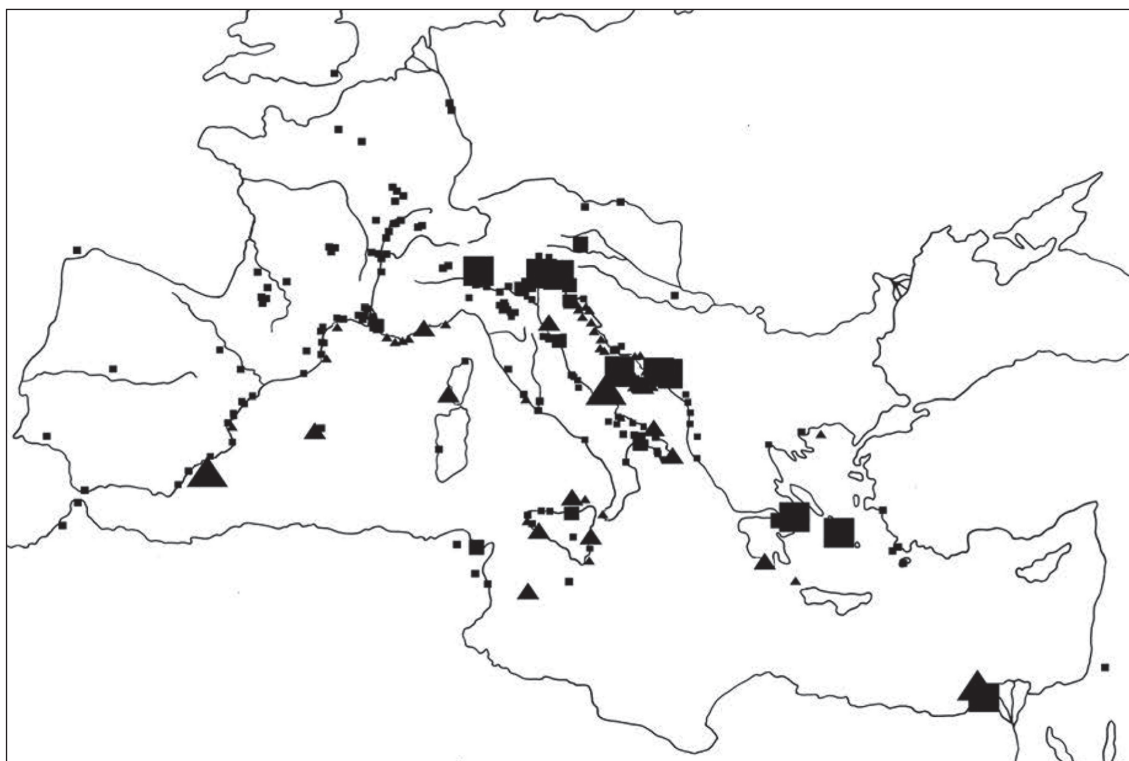


Fig. 1: Distribution map of Lamboglia 2 amphorae. Black squares from smallest to largest: 1–10 finds (or unknown number); 11–50 finds; 51–700 finds. Triangles from smallest to largest (underwater finds): 1–10 finds (or unknown number); 10–100 underwater finds; 100–700 underwater finds.

the mouth of the Guadiana River, and probably much further. Thus, even with a smaller quantity of amphorae, similar proportions are also reached in the assemblages analysed in Baelo, La Algaida, and Baesuri. On the contrary, in the rest of the areas, Adriatic wine has a lower presence, comparable to other parts of the western Mediterranean. In any case, it has been confirmed that the almost total lack of Lamboglia 2 findings in Hispania Ulterior presented in scientific literature was due simply to a gap in research that has been partially filled during the last decade.

A complex trade system was already established during the late Republican period, where routes were selected according to geographical areas. In the model proposed by Nieto Prieto,⁸ this would create a complex port hierarchy connecting the main ports and generate areas around them where the goods were redistributed. In this sense, the unequal distribution of the Adriatic and the Tyrrhenian wine amphorae could be an indicator to suggest the area of influence of the main ports. Thus, following this model, Molina Vidal⁹ proposed that the hinterland of the main port of the southwest, Carthago Nova would extend from Cape San Antonio to at least the Murcia coast. With the information of Baria and Abdera, it can be extended up to an undetermined location on the

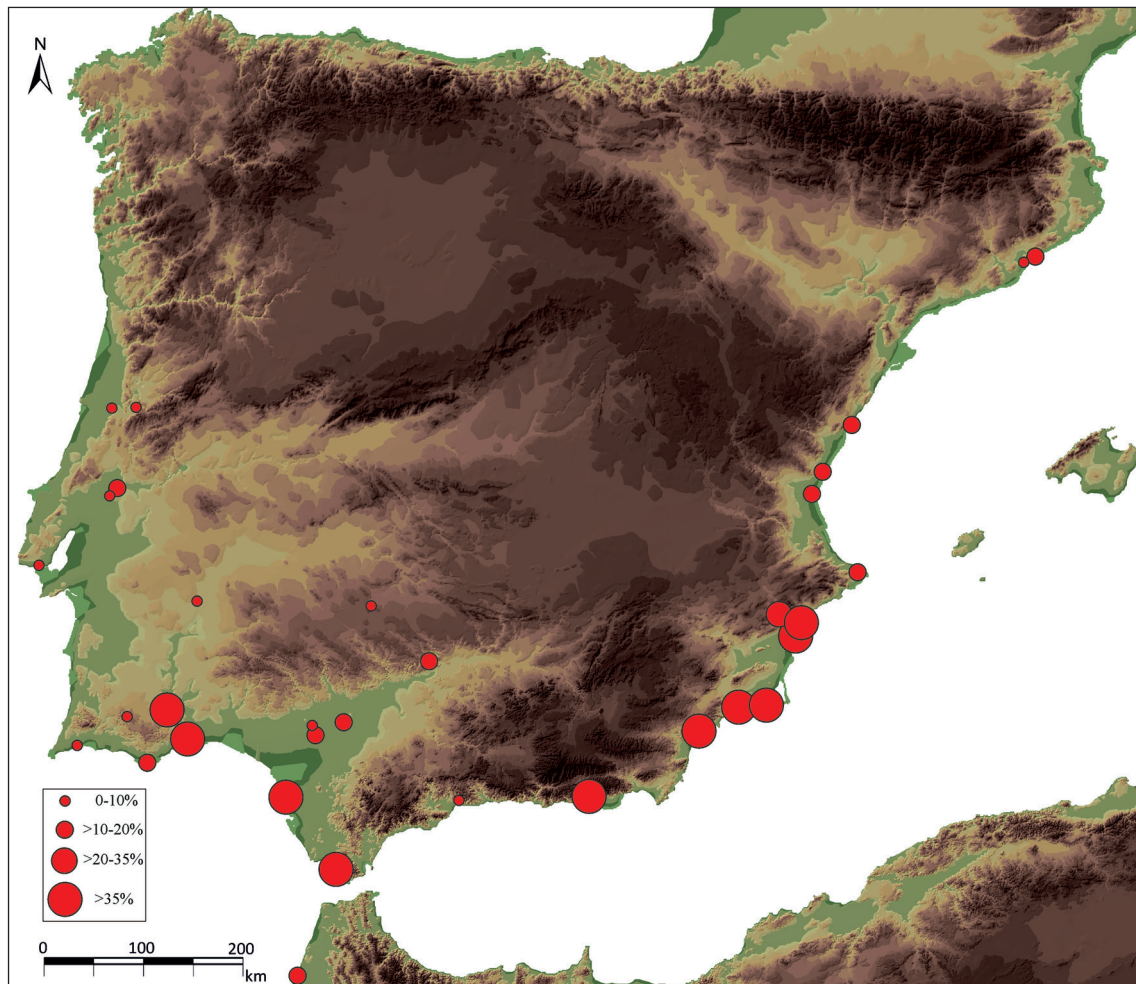


Fig. 2: Map with the proportional weight of the Lamboglia 2 versus Italic Dressel 1 (only with the sites with quantitative information analysed in Molina Vidal 1997 and Mateo Corredor 2016).

coast of Granada. The same indicator allows us to suggest that the hinterland of Gades would extend from the Straits of Gibraltar to Cape San Vicente, but this is based on a lower volume of information.

After demonstrating the unequal distribution of the Lamboglia 2 in comparison with the Dressel 1 in the south of Hispania, now we can examine when the Adriatic amphorae type arrived. This arrival does not seem to have happened continuously during the whole period of the type's production, but is concentrated in a shorter period. I propose that this was around the second and the beginning of the third quarter of the 1st century BC. This is suggested by the major presence of the evolved forms with a squarish rim, instead of the triangular rim (despite the morphological variations of the type). Moreover, Lamboglia 2 tends to appear more often in the same archaeological

contexts as Dressel 1B and C, than with Dressel 1A. In this respect, I am going to analyse some sites of this area, which can provide chronological information.

In ancient Scallabis, whose occupation starts at the end of the 2nd century BC, all the Lamboglia 2 were registered in a context from the second half of the 1st century BC.¹⁰ Likewise, this type is absent in Mata-Filhos in a context dated to the end of the 2nd century BC.¹¹ However, at the nearby site of Myrtilis, a deposit with six Lamboglia 2 appears along with Dressel 1C (some of them from the Guadalquivir Valley);¹² thus, this context could be dated in the second quarter of the 1st century BC. More significant is the late Republican phase of Monte Molião, dated between 130 and 80 BC, which has 59 NMI of Italic amphorae but only limited evidence Lamboglia 2. Of the latter there are only two rims and both are decontextualized.¹³

In the same way, in Baesuri, the Lamboglia 2 are absent in the Forte de São Sebastião, dated to the last third of the 2nd century BC.¹⁴ However, in the Castelo of Castro Marim, where very limited information is available for the first half of the 1st century BC, all the Lamboglia 2 appear in levels of the third quarter of the 1st century BC.¹⁵ In Baelo, the Adriatic wine is absent in the late Republican phase of the southern quarter, which is roughly dated between the 2nd half of the 2nd century and 80 BC.¹⁶ Moreover, in the assemblage from the excavations of 1966,¹⁷ all the Lamboglia 2 findings that I analysed belong to a context dated in the central decades of the 1st century. Within the province, in La Loba,¹⁸ with a well-dated context from the first quarter of the 1st century, there is an important assemblage with 400 amphorae rims. Of these, 82% is from the Italian Peninsula but only three rims (0,83%) are Lamboglia 2, which is too low even if this site is not placed in the preferential area.

In the southeast, we will start by focusing on the chronology of the shipwrecks with Lamboglia 2. The last proposal of Ribera¹⁹ dates the Escombreras 2 wreck between 80 and 60 BC. The only shipwreck in this area in which Lamboglia 2 is the main cargo, is the Punta de Algas.²⁰ For this wreck, it is difficult to establish a precise chronology, but the large presence of black gloss from the late series of Cales, state that the period between 80 and 40 BC as the most likely. Additionally, the San Ferreol²¹ wreck seems to support the continuity of the arrival of the Adriatic wine during the end of the second or third quarter of the 1st century. The case of *Valentia* is very clear. Between its foundation in 138 BC and its destruction by Pompey during the Sertorian Wars, the Lamboglia 2 amphorae appear mainly in layers related with this last episode.²² In fact, the gap in occupation in the following decades after 75 BC could explain the lower percentage of Lamboglia 2 in comparison to the area around Carthago Nova.

Definitively, the available data allows us to propose that the preferential import of the Adriatic wine into the south of the Iberian Peninsula did not happen regularly during the whole period of production of the type. Rather, it was concentrated in a shorter period, probably between 80/75 BC and the beginning of the third quarter of the 1st century BC.

Exploring the Causes behind the Arrival of the Adriatic Wine

In order to find a possible explanation for the high quantity of Adriatic wine arriving on the south-eastern coast of the Iberian Peninsula, Molina Vidal²³ formulated the hypothesis of a connection between the exploitation of Iberian mines and the slave trade of Delos. After the establishment of Delos as a free port in 167 BC, this island soon became the main slave market of the Mediterranean, reaching as many as 10,000 slaves sold in a single day.²⁴ The annexation of Pergamon in 133 accelerated the importance of the eastern market. Tchernia,²⁵ in order to justify the large number of Adriatic amphorae in Delos and in other sites of the east, proposed that both Adriatic wine and oil would serve as an exchange element in the slave markets of the East. Adriatic products would be transported as a return cargo, in a mechanism similar to that which proposed for Tyrrhenian wine in Gaul.

To explain the massive presence of Lamboglia 2 in the hinterland of Carthago Nova, Molina Vidal proposed a relation between the slave trade, Adriatic wines, and the metals from the Iberian southeast. Mainly this was based on Tchernia's hypothesis and the great need of labour force in the mines of Carthago Nova. Ships would depart from the Adriatic coast to Delos loaded with wine and oil, where the slaves would be shipped. A small part of the ships would go to Carthago Nova, directly or after returning to Italy, where they would be loaded with Adriatic wine. In Carthago Nova, they would then unload wine and slaves, and load metals from the Iberian mines.

But the new chronological data available placed the preferential period of the Adriatic wine arrival just at the point when the decline of Delos and the transformations of the east were happening. Thus, the great slave market of Delos decreased during the Mithridatic Wars with episodes like the second sack of Delos in 69 BC, which led to the temporary abandonment of the island. At the same time, the slave trade suffered a great setback after the anti-piracy operations led by Pompey in 67 BC. Linked to both events is the major development of self-consumption of the eastern markets, after years of presence of Italic traders there. This would also affect the Adriatic wine trade in the east.²⁶

In that sense, I would like to highlight that the beginning of this period mainly coincides with the anti-piracy campaign of Pompey the Great, the fall of Delos, and the resulting collapse of the slave trade in the east, to which the trade of Adriatic wine was related. I propose that there might be a relationship between the crisis in the eastern markets and the rise of the Lamboglia 2 in specific western areas, taking up a previous idea of A. Tchernia.²⁷ Due to the limitations of their preferred market, namely the east, trade agents could increase their presence in the west, becoming involved with Tyrrhenian wine and local productions.

The possible connection with Pompey in the production of Adriatic wine²⁸ and the increase of its exports during this period is very suggestive. On the one hand, it is known that Pompey had a great number of land properties in Picenum,²⁹ one of the

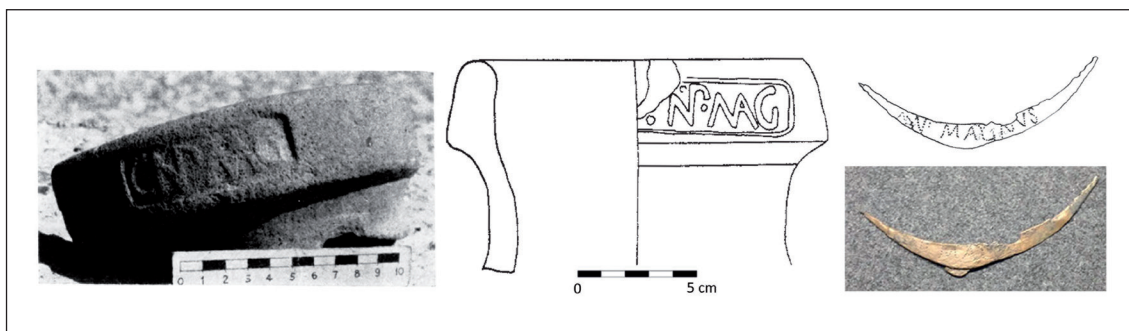


Fig. 3: Left and center: amphorae with the stamps related to Pompey. Right: bracelet with the inscription CNPMAGNUS.

main areas devoted to the wine production. Tchernia proposed that Pompey and already his father Pompeius Estrabo must have played an important role at the beginning of the large-scale commercialisation of Picenian wine;³⁰ this is precisely the area of greater production of Lamboglia 2.³¹ In addition, the link between Pompey, the wine production and Lamboglia 2 amphorae is also supported by two stamps (fig. 3): *CNPMG* from Civitavecchia,³² and *[---]·NP·MAG* found in Pantelaria.³³ The two stamps belong to the Lamboglia 2 type, although the latter was classified as Dressel 1³⁴ due to its Campanian fabric, where in any case, it would have been a minority production of Lamboglia 2.³⁵ Examining the two stamps enables us to deduce its identification with C. Pompeius Magnus.³⁶ The inscription CNPMAGNUS on a bronze bracelet found at Capo Rasocolmo reinforces the relationship between the development of the two stamps and Pompey,³⁷ whose cognomen Magnus began to be used after he was sent to Hispania to fight against Sertorius in 77 BC.³⁸

Thus, Pompey arrives in the Iberian Peninsula in the context of the Sertorian Wars (83–72 BC), and his presence in this territory will be constant throughout his career. This period corresponds with the time when the arrival of Lamboglia 2 to the south of the Peninsula reaches its peak. During these years, Pompey developed an important network of clients,³⁹ especially in Celtiberia, but also in cities like Carthago Nova. For example, he had the Cornelii Balbi from Gades among his most famous clients, and he granted them with Roman citizenship for their support during the war (Cic. *Balb.* 3, 6; 17, 38; Plin. *Nat.* 5, 3, 6).

Conclusion

To sum up, it has been analysed that there might be a link between Pompey, the wine production, and Lamboglia 2 amphorae. The chronological coincidence between the period when this type of amphora arrived in higher amounts to the south of the Iberian Peninsula, the presence of Pompey, and the development of his network of clients in

this territory was also highlighted. Altogether, these arguments allow us to suggest the hypothesis that the trade of Adriatic wine reaching the area of southern Hispania could be related to the economic interests of Pompey or his clients. Moreover, Pompey developed an active role in the transformation of the eastern markets with his anti-piracy campaign and other political and military actions. We have seen also that the decline of Adriatic exports in the East could be one of the causes to explain the important arrival of the Lamboglia 2 amphorae to the Iberian Peninsula.

In any case, the current state of the research does not allow us to go beyond pointing out these ideas. On the one hand, there is the leading role played by Pompey in the fall of Eastern trade and his important presence in the south of the Iberian Peninsula after 77 BC. On the other hand is the coincidence with the period when a larger quantity of Lamboglia 2 arrived to Southern Hispania, in whose production and commercialisation Pompey directly participated. In that sense, the hypothesis that is proposed connects and integrates all these factors. However, it is far from being confirmed, largely due to the inherent difficulties when relating archaeological information to historical figures.

Notes

¹ This research has been developed in the context of the projects PGC2018-099843-B-I00 (MCIU/AEI/FEDER, UE), PID2019-107264GB-I00 and GV/2020/060.

² The proposal of Lindhagen 2009, that the main production of Lamboglia 2 was placed along the central Dalmatian coast has been strongly criticised by Panella 2010 and Carre et al. 2014.

³ Tchernia 1986, 68–74; Carandini 1989, 114; Lund 2000.

⁴ Due to the fact that the quantification done by rim counts corrected by MR (Mateo Corredor – Molina Vidal 2016). In fact, the quantity of Adriatic wine was still much higher than the Tyrrhenian one, when one considers that the average capacity of Lamboglia 2 is more than 50% higher than Dressel 1 (37 l vs 23,9 l) (Molina Vidal – Mateo Corredor 2018).

⁵ Molina Vidal 1997, 204; Molina Vidal 2013.

⁶ These values have been confirmed in the study of new contexts from Lucentum (Guilabert et al. 2010; Martínez Martínez – Molina Vidal 2015; Mateo Corredor 2019).

⁷ Mateo Corredor 2016.

⁸ Nieto Prieto 1997.

⁹ Molina Vidal 1997; Molina Vidal 2013.

¹⁰ Bargão 2006, 92.

¹¹ Luís 2003.

¹² Fabião 1987; Mauricio 2007.

¹³ Arruda – Sousa 2013, 107 f.

¹⁴ Arruda – Pereira 2008.

¹⁵ Viegas 2011; Mateo Corredor 2016, n. 244.

¹⁶ Bernal Casasola et al. 2007.

- ¹⁷ Domergue 1973.
¹⁸ Benquet – Olmer 2002.
¹⁹ Ribera i Lacomba 2013.
²⁰ Mas García 1971.
²¹ Mas García 1985.
²² Ribera i Lacomba – Pascual Berlanga 2015.
²³ Molina Vidal 1999.
²⁴ Str. 14, 5, 2.
²⁵ Tchernia 1986, 70–74.
²⁶ Tchernia 1986, 166; Tchernia 2011, 164; Molina Vidal 2002.
²⁷ Tchernia 1986, 166.
²⁸ Amela Valverde 2011.
²⁹ Plut. *Pomp*, 6, 1; Vell. 2, 29, 1.
³⁰ Tchernia 1986, 193.
³¹ Carre et al. 2014.
³² Gianfrotta 1981, 80f.
³³ Baldassari – Fontana 2002.
³⁴ Baldassari – Fontana 2002, 976–978; Manacorda 2005, 139f.
³⁵ Hesnard 1998.
³⁶ Manacorda 2005, 137.
³⁷ Lazzarini 2001; Manacorda 2005, 138f.
³⁸ Plutarco *Pomp*. 13, 7, 10.
³⁹ *Vid.* Amela Valverde 2003.

Image Credits

Fig. 1: Lindhagen 2009, fig. 4. – Fig. 2: by the author. – Fig. 3: Left and center: Gianfrotta 1981; Baldassari – Fontana 2002. Right: Manacorda 2005; www.nauticareport.it.

References

Amela Valverde 2003

L. Amela Valverde, *Las clientelas de Cneo Pompeyo Magno en Hispania*, Instrumenta 13 (Barcelona 2013).

Amela Valverde 2011

L. Amela Valverde, *Las ánforas de Pompeyo Magno*, SEBarc IX, 2011, 193–205.

Arruda – Pereira 2008

A. M. Arruda – C. S. P. Pereira, *As ocupações antigas e modernas no Forte de S. Sebastião (Castro Marim)*, Xelb 8, 2008, 365–395.

Arruda – Sousa 2013

A. M. Arruda – E. Sousa, Ânforas republicanas de Monte Molião (Lagos, Algarve, Portugal), *Spal* 22, 2013, 101–141.

Baldassari – Fontana 2002

R. Baldassari – S. Fontana, Anfore a Pantelleria: appunti per una storia economica dell'isola nell'antichità, in: M. Khanoussi – P. Ruggeri – C. Vismara (eds.), *L'Africa romana. Atti del XIV convegno di studio. Lo spazio marittimo del Mediterraneo occidentale: geografia storica ed economica, II* (Sassari 2002) 953–989.

Bargão 2006

P. Bargão, As importações anfóricas do Mediterrâneo durante a Época Romana Republicana na Alcáçova de Santarém (Ph.D. diss. Universidade de Lisboa 2006).

Benquet – Olmer 2002

L. Benquet – F. Olmer, Les amphores, in: J. M. Blázquez Martínez – C. Domergue – P. Sillières (dirs.), *La Loba* (Fuenteovejuna, Cordoue, Espagne). La mine et la village minier antiques, *Memories* 7 (Bordeaux 2002) 295–331.

Bernal Casasola et al. 2007

D. Bernal Casasola – A. Arévalo González – A. M. Sáez Romero, Nuevas evidencias de la ocupación en época republicana, in: A. Arévalo González – D. Bernal Casasola (eds.), *Las cetariae de Baelo Claudia. Avances de las investigaciones arqueológicas en el barrio meridional* (Cádiz 2007) 237–353.

Carandini 1989

A. Carandini, L'economia italica fra tarda repubblica e medio impero considerata dal punto di vista di una merce: il vino. Ricordando i tempi dello scavo ostiense, che sembrano così lontani, in: *Amphores romaines et histoire économique: dix ans de recherches* (Rome 1989) 505–521.

Carre et al. 2014

M. Carre – P. Monsieur – S. Pesavento Mattioli, Transport amphorae Lamboglia 2 and Dressel 6A: Italy and/or Dalmatia? Some clarifications. *JRA* 27, 2014, 417–428.

Domergue 1973

C. Domergue, *Belo I. La stratigraphie* (Madrid 1973).

Fabião 1987

C. Fabião, Ânforas romanas republicanas de um depósito de Mértola, no Museu Nacional de Arqueologia e Etnologia, *APort* 4, 1987, 125–148.

Gianfrotta 1981

P. A. Gianfrotta, Archeologia sott'acqua. Rinvenimenti sottomarini in Etruria Meridionale, *BdA* 10, 1981, 68–92.

Guilabert Mas et al. 2010

A. Guilabert Mas – F. J. Moltó Poveda – M. Olcina Doménech – E. Tendero Porras, El foro alto-imperial de Lucentum. Contextos materiales de su fundación, in: V. Revilla Calvo – M. Roca Roumens (eds.), *Contextos cerámicos y cultura material de época augustea en el occidente romano* (Barcelona 2010) 342–372.

Hesnard 1998

A. Hesnard, M. Lollius Q. f. et les amphores Lamb. 2 pompéiennes, in: V. Blanc-Bijon – M.-B. Carre – A. Hesnard – A. Tchernia (eds.), *Recueil des timbres sur amphores romaines II (1989–1990 et compléments 1987–1988) (Aix-en-Provence 1998)* 307–310.

Lazzarini 2001

M. L. Lazzarini, La lamina bronzea: una nota epigráfica, in: G. M. Bacci – G. Tigano (eds.), *Da Zancle a Messina, un percorso archeologico attraverso gli scavi 2 (Palermo 2001)* 277–278.

Lindhagen 2009

A. Lindhagen, The Transport Amphoras Lamboglia 2 and Dressel 6A: a Central Dalmatian origin?, *JRA* 22, 2009, 83–108.

Luís 2003

L. Luís, Ânforas republicanas de Mata-Filhos (Mértola), *RPortA* 6, 2003, 363–382.

Lund 2000

J. Lund, Transport amphorae as Evidence of Exportation of Italian Wine and Oil to the Eastern Mediterranean in the Hellenistic Period, in: J. Lund – P. Pentz (eds.), *Between Orient and Occident: Studies in Honour of P. J. Riis (Copenhagen 2000)* 77–99.

Manacorda 2005

D. Manacorda, Le anfore di Pompeo Magno, in: *Studi di archeologia in memoria di Liliana Mercado (Torino 2005)* 137–143.

Martínez Martínez – Molina Vidal 2016

C. Martínez Martínez – J. Molina Vidal, La villa C/Olimpo y la organización territorial de la periferia urbana de Lucentum, *Pyrenae* 47, 2016, 165–189.

Mas García 1971

J. Mas García, La nave romana de Punta Algas, *NAH* 13–14, 1971, 402–427.

Mas García 1985

J. Mas García, Excavaciones en el yacimiento submarino de “San Ferreol” (Costa de Cartagena), in: *VI Congreso Internacional de Arqueología Submarina (Madrid 1985)* 189–224.

Mateo Corredor 2016

D. Mateo Corredor, Comercio anfórico y relaciones mercantiles en Hispania Ulterior (ss. II a.C.–II d.C.), *Instrumenta* 52 (Barcelona 2016).

Mateo Corredor 2019

D. Mateo Corredor, Tráfico comercial de Lucentum y su entorno durante el periodo tardorrepublicano y tempranoaugusteo, in: J. Coll Conesa (ed.), *Opera fictiles. Estudios transversales sobre cerámicas antiguas de la península ibérica, Monografías Ex Officina Hispana* 4 (Madrid 2019) 233–248.

Mateo Corredor – Molina Vidal 2016

D. Mateo Corredor – J. Molina Vidal, Archaeological Quantification of Pottery. Rims Count Adjusted with Modulus of Rupture (MR), *Archaeometry* 58, 2016, 333–346.

Mauricio 2007

C. A. da S. Mauricio, Análise textural, mineralógica e química de cerâmicas arqueológicas – estudos de proveniência (Tese de Mestrado, Universidade de Lisboa 2007).

Molina Vidal 1997

J. Molina Vidal, La dinámica comercial romana entre Italia e Hispania Citerior (siglos II a.C.–II d.C.) (Alicante 1997).

Molina Vidal 1999

J. Molina Vidal, Vinculaciones entre Apulia y el área de influencia de Carthago Nova en época tardorrepublicana, *Latomus* 58, 1999, 509–524.

Molina Vidal 2002

J. Molina Vidal, La irrupción de Hispania en los movimientos socioeconómicos del Mediterráneo occidental durante las Guerras Civiles, *Gerión* 20, 2002, 281–306.

Molina Vidal 2013

J. Molina Vidal, Commerce et marchés de vin italique dans le sud de l'Hispanie Citérieure (III^e–I^{er} siècles av. notre ère), in: F. Olmer (ed.), *Itinéraires des vins romains en Gaule, III^e–I^{er} siècles avant J.-C. Confrontation de faciès* (Lattes 2013) 195–212.

Molina Vidal – Mateo Corredor 2018

J. Molina Vidal – D. Mateo Corredor, The Roman Amphorae Average Capacity (AC), *OJA* 37, 2018, 299–311.

Nieto Prieto 1997

X. Nieto Prieto, Le commerce de cabotage et de redistribution, in: P. Pomey (dir.), *La navigation dans l'antiquité* (Aix-en-Provence 1997) 146–159.

Panella 2010

C. Panella, Roma, il suburbio e l'Italia in età medio e tardo-repubblicana: cultura materiale, territori, economie, *Facta* 4, 2010, 11–124.

Ribera i Lacomba 2013

A. Ribera i Lacomba, Los pecios del litoral ibérico y la fundación (138 a.C.) y destrucción de Valentia (75 a.C.), in: G. Olcese (ed.), *Immensa Aequora. Ricerche archeologiche, archeometriche e informatiche per la ricostruzione dell'economia e dei commerci nel bacino occidentale del Mediterraneo (metà IV sec. A.C. – I sec. D.C.)* – Roma 24–26 gennaio 2011 (Rome 2013) 455–468.

Ribera i Lacomba – Pascual Berlanga 2015

A. Ribera i Lacomba – G. Pascual Berlanga, Las ánforas del nivel de destrucción de Valentia (75 AC), in: I. Aguilera Aragón – F. Beltrán – M.^a J. Dueñas Jiménez – C. Lomba Serrano – J. A. Paz (eds.), *De las ánforas al museo: estudios dedicados a Miguel Beltrán Lloris* (Zaragoza 2015) 739–750.

Tchernia 1986

A. Tchernia, Le vin de l'Italie Romaine, *BEFAR* 261 (Rome 1986).

Tchernia 2011

A. Tchernia, *Les Romains et le commerce* (Naples 2011).

Viegas 2011

C. Viegas, A ocupação romana do Algarve – estudo do povoamento e economia do Algarve central e oriental no período romano, *Série estudos e Memórias* 3 (Lisboa 2011).