

THE PRESENCE OF NORTH-AFRICAN WINES IN ROME AND OSTIA DURING THE MIDDLE IMPERIAL AGE (2ND–EARLY 3RD CENTURIES AD)

LA PRESENCIA DE LOS VINOS NORTEAFRICANOS EN ROMA Y OSTIA DURANTE EL MEDIO IMPERIO (SIGLOS II-PRINCIPIOS DEL III D. C.)

Edoardo RADAELLI¹

The University of Southampton and Sapienza - Università di Roma

Recibido el 28 de agosto de 2017.
Evaluado el 16 de octubre de 2017.

RESUMEN:

Las excavaciones estratigráficas en el sitio usualmente conocido como las “Termas de Heliogábalo” en Roma han permitido el hallazgo de un gran número de fragmentos anfóricos inéditos. Los datos que derivan de las ánforas vinarias originarias del Norte de África halladas en los contextos medioimperiales de este sitio (siglos II-principios del III d. C.) han sido añadidos a los que derivan de otras excavaciones hechas en Roma y después comparadas con aquellas halladas en Ostia. Las largas cantidades han sido la base para una reflexión sobre la presencia de vinos norteafricanos en ambas ciudades durante el periodo cronológico analizado. El estudio incluirá también un análisis de las fuentes antiguas que mencionan este origen para identificar las calidades de estos vinos. En efecto este estudio tendrá asimismo una consideración sobre sus consumidores hipotéticos (posiblemente no la élite) con una reflexión sobre el consumo de vino con teorías que derivan de las ciencias sociales que puedan ser aplicadas a la época romana.

ABSTRACT:

The stratigraphic excavations in the building commonly known as the ‘Terme di Elagabalo’ in Rome revealed large amounts of unpublished fragments of amphorae. The data derived from the wine-amphorae originally coming from North Africa found in the contexts dated to the Middle Imperial age of this site (2nd–early 3rd centuries AD) had been added to those derived from other published excavations carried out in Rome and then compared with those found in Ostia. The large amounts had been a basis for reflection about the presence of North-African wines in both cities during the chosen chronological period. The study also includes the analysis of ancient sources mentioning this origin in order to identify the quality of these wines. In fact, this study will also involve a consideration about their hypothetical purchasers (possibly not the élite) with a reflection about the consumption of wine using theories derived from social sciences which could be applied to Roman times.

PALABRAS CLAVES: Ánforas, Norte África, vino, comercio, consumo.

KEY-WORDS: Amphorae, North-Africa, Wine, Commerce, Consumption.

¹ edoardoradaelli@hotmail.it. This article offers parts of data widely discussed in the PhD thesis in Archaeology achieved at The University of Southampton. Many thanks must go to Prof. S. J. Keay, Prof. C. Panella, and Prof. L. Saguì for their help, the suggestions, the opportunity to study these ceramics, and for the possibility of offering this paper and to Mrs. Valerie Sinden for having proof-read this text.

I. Introduction

The stratigraphic excavations in the building commonly known as the 'Terme di Elagabalo' in Rome (2007–2013) had all been part of a larger project of archaeological excavations located close to the Colosseum and carried out by the 'Scienze dell'Antichità' Department of Sapienza – University of Rome². They allowed the identification of several ceramic deposits that cross over many chronological periods with thousands of ceramic fragments. This study is based on the amphorae because they are predominant in the contexts dating to the Middle Imperial age of this site (40,882 fragments, corresponding to 777 amphorae) and because, despite a few problems which may occur when they are the basis for an understanding of Roman commerce³, they still remain an interesting and valuable source of information about economy, dietary needs, taste, culture, and the purchasing capacity of the consuming people⁴. Among them, 71 amphorae were recognised as originally coming from North-Africa and containing (even hypothetically) wine. Despite the importance of this site and its amounts, its deposits cannot be seen as isolated from the remaining part of the city. Therefore this study also considered several published ceramic assemblages in Rome⁵ and even Ostia⁶ dating to the Middle Imperial age (2nd–early 3rd centuries AD).

The number of vessels had been calculated combining the methodologies called NMI (Minimum Number of Individuals), its calibration NTI (Typological Number of Individuals), and EVE (Estimated Vessel Equivalent)⁷. For space limits, the forms of amphorae will only be mentioned, but they will not be described⁸. These amounts (which of course could change with future discoveries and publications) gave the opportunity to analyse the presence of North-African wines in both cities considered during the Middle Imperial age. In order to understand the fluctuations in imports to both cities, this chronological period had been

² Cf. Fig. 1. This building was never investigated seriously and extensively until Prof. Clementina Panella decided to enlarge her excavations in 2007. For the phases and building discovered cf. Sagui 2013; Sagui and Cante 2015 (both with bibliography).

³ The first problem consists in the impossibility to always and surely identify the content of each form of amphora because at times it is still unknown: would it be the main content (wine, olive oil, fish sauces, or other contents), because sometimes these containers could be polyvalent or even reused for carrying other products rather than the one for which they had been manufactured (cf. Peña 2007, 61-118); or would it be, on the other hand, the specific cultivation or production site of the content. This second problem derives from an almost total absence on the analysed amphorae of stamps or *tituli picti* which could provide information about this and ancient sources being sometimes more precise than the generic possibility of identifying just macro-areas from the fabric of sherds. These areas, in fact, produced wines with different qualities and it is almost impossible to identify exactly which one was contained in a specific form of amphora (Radaelli forthcoming A). Another problem derives from the use of the number of vessels only for an understanding of changes and fluctuations in the origins, because they are not fully comparable: different forms contained different amounts of products because they had diverse volumes (sometimes even different vessels belonging to the same form can have this problem because they were hand-made).

⁴ Bruno 2004, 358; Ollà 2008, 283. Cf. *contra* Peña 2007, above all 345 who seems to expressly deny the validity of whatsoever study which aims to reconstruct patterns of supply in foodstuffs based on the analysis of amphorae.

⁵ The excavations considered are: *Meta Sudans*, Palatine's Northern Slopes, and *Crypta Balbi* (Rizzo 2003, 173-184); Trajan's Markets (Ceci 2006); *Forum Transitorium* (Marucci 2006); *Domus Tiberiana* (Meylan Krause 2002, 18-19, 42-43, 47-48); Santo Stefano Rotondo (Lissi Caronna and Rizzo 2009, especially 270-272); Via Sacchi (Ferrandes 2008); Nuovo Mercato Testaccio (Coletti and Lorenzetti 2010); *Aqua Marcia* (Panetta 1996); and Via Blaserna (Cianfriglia and Francini 2008).

⁶ The excavations considered are: Terme del Nuotatore (*Ostia IV* and Rizzo 2014a, Periods 3b, 4 and 5); Casa delle Pareti Gialle, Taberna dell'Invidioso, Piazzale delle Corporazioni - Portico Ovest, *Domus dei Pesci* (all summarised in Rizzo 2014b).

⁷ For these methodologies cf. Protocole Beuvray 1998, XIII-XIV; Symonds and Haynes 2007, 69 with further references (also cited in Radaelli 2017, 1043).

⁸ They are listed in Fig. 2. For the descriptions of all the amphorae mentioned here cf. Rizzo 2014a, 99-154.

divided into four phases that are named after Emperors so as to standardise nomenclatures⁹. The percentages that will be offered in this work, are based on the volumes in litres that had been calculated on the basis of the total number of vessels for each in-phase form of amphora¹⁰. This study also scrutinised many ancient sources mentioning the wines from all recognised sub-origins so as to determine (when and if possible) their qualities.

II. The North-African wines

The wine production in North Africa is rather ancient¹¹ and widespread¹², although during even older periods this beverage might have been transported by skin containers, especially when – during the first century BC – wines from Italy and *Tarraconensis* were very likely replaced by local ones¹³. Diodorus Siculus¹⁴, Strabo¹⁵, Pliny the Elder¹⁶, Cesar¹⁷, Columella¹⁸, as well as the Punic agronomist Magon¹⁹, in fact, describe vineyards in various areas along the Mediterranean coast of all the three main areas of this region which resulted in amphorae that were analysed: Ancient Tunisia, *Tripolitania*, and *Mauretania Caesariensis*²⁰. Looking at the amounts of litres resulting from the amphorae discovered in both cities and whose wine-content is assured or probable, this information assumes importance, despite the uncertainties about the exact content of several North-African amphorae²¹.

Pliny the Elder mentions the ancient Tunisian *passum*, second in quality only to the one from Crete²², which was not actually excellent²³. Several inscriptions, as well as numismatic evidences²⁴ and archaeological remains²⁵, help in determining the extension of Tunisian vineyards, that are often mentioned together with olives. An inscription reporting parts of the *Lex Manciana* has a section about new vineyards²⁶. Another one from Ain Djemala provides positive answers to the cultivation of olives and vines²⁷ and other inscriptions were found in *Lambesis*²⁸, where a veteran had land possessions for cereals,

⁹ The Trajanic age = early 2nd century AD; the Hadrianic age = second to third decades of the 2nd century AD; the Antonine age = mid to late 2nd century AD; and the Severan age = very late 2nd/early 3rd centuries AD.

¹⁰ Residual and intrusive vessels will not be considered as they are in misleading deposition in all the considered contexts. These volumes (in litres) had been taken from recent publications which offer this information or geometrically calculated from drawings of entire objects offered by them, subdividing them into parts that could be assimilated to geometrical forms: cylinders (volume = $\pi R^2 h$), cones (volume = $1/3 \pi R^2 h$) or frustum of cones (volume = $1/3 \pi h (R^2 + r^2 + Rr)$). The volumes of these subdivision were afterwards summed so to obtain an approximate volume of the entire amphora in cm³ then converted into litres (1,000 cm³ = 1 litre). Unfortunately the volume of some amphorae was impossible to be determined, because they were still not found in their integrity, therefore their volumes cannot be considered.

¹¹ Cf. Biondi 1986, 39; Morel 1998; Brun 2004a, 187-191.

¹² Marlière 2002, 184. This is also confirmed by mosaics depicting vines and grape harvests (cf., for example, Ghedini 2000, 226-230, 235).

¹³ Martin-Kilcher 1998, 515; Brun 2004b, 201.

¹⁴ Diod. Sic. *Bibl. Hist.* 20, 8, 4.

¹⁵ Strabo. *Geogr.* 17, 3, 4 and 20.

¹⁶ Plin. *HN.* 5, 1, 13; 14, 24.

¹⁷ Caes. *B. Afr.* 67, 2.

¹⁸ Col. *Rust.* 3, 12, 5; 3, 15, 4-5; 5, 5, 4; and *De arboribus*, 4, 1 and 4-5.

¹⁹ Lequément 1980, 186.

²⁰ For *Mauretania Tingitana* cf., for example, Rebuffat and Gabard 1990, especially for later periods.

²¹ Cf. Bonifay 2004, 89-153 about the many forms of North-African amphorae.

²² Plin. *HN.* 14, 11.

²³ Tchernia 2011b, 345-346.

²⁴ Lequément 1980, 186.

²⁵ Cf. Brun 2003b; 2004b, 202-204.

²⁶ *CIL*, VIII, 25902. Date and regulations of this law are still not completely known, although it was referred to North-Africa (Kehoe 2007, 558; Sanz Palomera 2010, 90-109).

²⁷ Lequément 1980, 187 and note 3.

²⁸ Cagnat 1914; D'Escurac-Doisy 1962.

vines, and pasture²⁹. Other inscriptions and texts dated 3rd century AD continue to confirm the importance of this product³⁰ that might have been of some quality, as reported by Pliny the Elder. Several amphorae were produced in the Ancient Tunisia to transport wine and they are mostly local imitations of Italian prototypes³¹: Dressel 2–4; ‘Pseudo Dressel 2–4’; *Ostia IV*, 447; and Middle Roman 1 = Agora M254³². This datum may suggest that, for marketing purposes, producers and manufacturers of amphorae in this area wanted to equate their wines to the Italian ones by imitating their containers. This sub-origin is absent in Ostia and Rome during the Trajanic age and it reaches very low amounts during the Hadrianic age in Rome³³. During the Antonine age there is an increase in the amounts of this origin in both cities (although still with very low percentages) and during the Severan age an important difference in these two cities is visible: while in Ostia this origin increases a little (2.6% of total litres), in Rome its increase is much more significant as it reaches 42.2% of total litres³⁴, becoming the most attested import in the Capital during this phase.

On the other hand, only a single mention by Pliny the Elder considers the Tripolitanian wine, which seems to have been of some good quality³⁵. The lack of information from ancient sources is partly compensated by archaeological remains. In Libya³⁶ and in the island of Jerba³⁷ (which also offers remains of productive *villae*³⁸) small containers were produced (Mau XXXV) which imitated the Italian prototype Dressel 2–4³⁹. Despite the small quantity of wine they contained (about 11 litres), their presence is not negligible in all the analysed sites. Both in Rome and Ostia, the Tripolitanian wine is always present, although with small quantities and low percentages. A significant increase is visible during the Antonine age when this sub-origin reaches 8.1% of total litres in Rome and 4.2% in Ostia⁴⁰, to decrease during the Severan age in both cities (although in Ostia the percentage remains the same as during the previous phase).

The third sub-origin related to the amphorae discovered in both cities is *Mauretania Caesariensis*. As for the previous sub-origin, even its wine cannot be neglected, because it saw an agricultural growth during the centuries⁴¹. Apart from the *Peryplus* of the Pseudo-Scylax dated 4th century BC⁴², only Strabo reports that vineyards were cultivated in this area during the Roman period⁴³. Other mentions of this product come from epigraphic evidences. A man, *Tiberius Claudius Docimus*, is remembered on his funerary inscription in Rome as a retailer of fish sauces and wine from this province⁴⁴, thus confirming the existence of a commerce to the Capital. Other significant epigraphic evidences come from a few amphorae of the form Dressel 30 (which imitated the Gallic prototype Gauloise 4⁴⁵), mentioning the origin of these containers around the city of *Tubusuctu* (nowadays Tiklat, close to El

²⁹ Apul. *Apol.* 56, 5.

³⁰ Lequément 1980, 187-188. Cf. also Brun 2004b, 201.

³¹ Amphorae Dressel 30 can be added to this list, because they were found in the “Terme di Elagabalo”, but this form is an imitation of Gallic amphorae and was also produced in other parts of North-Africa: Capelli and Bonifay 2016, 538.

³² Amphorae Mid Roman 1 had been produced also in Cyrenaica: Mazou and Capelli 2011.

³³ Fig. 3: 0.01%.

³⁴ Cf. Fig. 2.

³⁵ Plin. *HN.* 14, 71.

³⁶ *Ostia III*, 471.

³⁷ Fentress 2001, 261-264.

³⁸ Cf., for example, the 4th century AD *villa* in Brun 2004b, 197.

³⁹ Some containers from the Island of Jerba and from Zitha had been recently ascribed to the ‘pseudo Dressel 2–4’ rather than to the Mau XXXV: Capelli and Bonifay 2016, 548-550.

⁴⁰ Cf. Fig. 3.

⁴¹ Leveau 2005, 86.

⁴² Rebuffat and Gabard 1990, 219 and 232. This article is, however, focussed more on *Mauretania Tingitana* that produced wine as well.

⁴³ Strabo. *Geogr.* 17, 3, 4.

⁴⁴ *CIL*, VI, 9676 (cf. page 3895) = *ILS*, 7486 = *AE*, 2010, 225: *negotians salsamentarius et vinarius Maurarius*.

⁴⁵ For this form, cf. The University of Southampton 2005: Gauloise 4.

Kseur⁴⁶): some of these vessels, in fact, bear stamps like *ex prov(incia) Ma(ur)etania Caes(ariensis) Tubus(uctu)*⁴⁷, although other forms of this stamp are known from various discoveries⁴⁸. Unfortunately none of these mentions inform about the quality of this wine, but it was possibly as good as other North-African ones, accepting the hypothesis offered by Lequément who suggested that part of the famous African *passum* also came from *Mauretania*⁴⁹. This information is partly confirmed by finds, despite a total absence of amphorae in all sites during the Trajanic age. During the Hadrianic age there is an increase in litres in Rome (although the percentage reaches just 0.8% of total litres), while the Antonine age sees a decrease in the presence of this wine in both cities (even if in Rome its percentage raises to 1.4%). The amounts raise again during the Severan age, when in both cities this sub-origin reaches the highest percentages (2.3% in Rome and 4.5% in Ostia⁵⁰).

These data confirm the large dissimilarity of the two cities considered⁵¹, that have been possibly caused by different supply routes and wine reception from the Empire or even diverse tastes or choices of their inhabitants. The large presence of North-African wines during the Severan age, even reaching a high percentage (47.1%⁵²) is also very significant because it becomes the predominant origin during that phase. This is possibly a first symptom of something that was already acknowledged during the subsequent years when North-Africa gained a predominance in the markets of the entire Mediterranean for the obligations caused by urban and military supplies⁵³.

III. Wine consumption during Roman times

Food is fundamental for survival and ancient Romans increased their amount of calories coming from grain (the usual basic meal of lower ranks⁵⁴) with wine, olive oil, fish sauces, and other foodstuffs⁵⁵. The general political stability, urban expansions, reduction of piracy, and possibly even taxation⁵⁶ very likely played significant roles in the growth of the economy of the Roman Empire, increasing capital investments in production facilities on a larger scale⁵⁷ and enhancing market transactions, although parts of the Empire showed “little or no economic development”⁵⁸. The social mechanism of Roman times likely influenced the amount of goods that could be purchased, as wealth was one of the many indicators of rank⁵⁹. Rome, being the Capital of the Empire, surely had a different role than any other city in commerce for its being the biggest metropolis of ancient times with a multiethnic and multicultural population and a varied social composition. This is clearly expressed in the

⁴⁶ Brun 2004b, 232-233.

⁴⁷ *CIL*, XV, 2635 a–e and *CIL*, VIII, 10477 f–l.

⁴⁸ For example: *ex provinc(ia) Mauretan(ia) Caes(ariensis) Tub(usuctu)* in Callender 1965, nos 769 and 1744 and Lequément 1980, 189 or *ex prov(incia) Ma(ur)etania [Caes(ariensis)] Tubu(suctu)* borne by an unpublished vessel (analysed by the same author of this research) found during the excavations carried out along Via Prampolini in Rome (VII Municipio). Cf. also Capelli and Bonifay 2016, 538.

⁴⁹ Lequément 1980, 190-191. Chafia 2004, 982, even considering both Numidia and *Mauretania Caesariensis*, only referred to wine from the first area.

⁵⁰ Cf. Fig. 3.

⁵¹ As already noticed by Tchernia 2006, 148-149.

⁵² Cf. Fig. 3.

⁵³ Panella 2001, 179-180; Bruno 2004, 388; for the problems of this interpretation and subsequent assumptions cf. Vera 2010.

⁵⁴ Cf., for example, Garnsey 1988, 240-242; Jongman 2007, 603; Erdkamp 2013, 262, 264; Buonopane 2015, 67.

⁵⁵ Kingsley 2001, 46; Temin 2013, 30. Already Fischler (1990, 203-207) analysed the ‘omnivore paradox’ (cf. also Fiddes 1996) for which humans are autonomous, free, and adaptable relating to the environment, but at the same time they need a minimum variety so as to achieve all nutrients (Fischler 1988, 277-279). This scholar undermined the ‘structuralist’ approach in consuming behaviour (which was influenced by works of anthropologists such as Lévi-Strauss 1964; 1965; 1968; Douglas 1974; 1975; 1978).

⁵⁶ Lo Cascio 2007, 625.

⁵⁷ Wilson 2007, 180; Nencini 2009, 231-232; Marzano 2013, 105.

⁵⁸ Terrenato 2015, 528.

⁵⁹ MacMullen 1974, 106.

diversity of origins of imported amphorae and the possible qualities of contained wines (without considering what might have arrived by perishable containers such as barrels or those made of skin), which do not find parallels in Ostia. Being the social ‘hierarchy’ of Roman times⁶⁰ based at first on birth-right⁶¹, legal *status*⁶², and the area in which people were born⁶³, then on productive control⁶⁴ (especially land ownership), duties for the Empire⁶⁵, and social bonds⁶⁶, an assumption about the existence of different consuming attitudes is possible, also because Romans often acted so as to display their social rank (for example using specific clothing⁶⁷). Whichever was the people’s social *status*, during the Roman Empire, social standing was closely tied to wealth, money, and subsequently to the amount of goods that could be purchased (foodstuffs included). Surely alcohol brought a calorific income, but its consumption also served (and even more) to satisfy cultural needs⁶⁸ and to define boundaries among ranks⁶⁹. All Romans (principally the élite, despite the usual *decorum* it tried to demonstrate to others⁷⁰) usually drank a lot of wine and this happened especially during the Imperial period⁷¹. Alcohol was – and still is – a social binding agent⁷², serving to strengthen group identities. Higher social ranks of Rome surely had the power to determine factors in eating practices and the money⁷³ for an easier accessibility to goods. This happened not only for their economic possibilities, but also for the social attitudes they wanted to demonstrate⁷⁴, possibly leading to what was called by Veblen the “conspicuous consumption”⁷⁵, which meant the consumption of goods only for the ability to pay and not for reasons related to subsistence⁷⁶. The élite had the chance to consume large varieties of foodstuffs, beverages⁷⁷, and even drugs⁷⁸ and it also oriented choices towards commodities – foodstuffs included – which were more expensive and higher in quality⁷⁹, sometimes from private dealers⁸⁰, in order to show its wealth⁸¹. On the other hand, determining if lower social ranks (who could have always used *popinae* to find cheap and warm food and something to drink⁸²) had any active part in this is almost impossible⁸³. On one hand because imports to

⁶⁰ Cf. Harris 2011, 15-26 for the terms related to the Roman social hierarchy that can be used.

⁶¹ Alföldy 1987, 159.

⁶² Alföldy 1987, 160-161.

⁶³ Alföldy 1987, 161-162.

⁶⁴ Garnsey and Saller 1989, 132.

⁶⁵ Garnsey and Saller 1989, 133. For the various appointments cf. Alföldy 1987, 170-172.

⁶⁶ Sandberg 2005, 144.

⁶⁷ Especially when they showed themselves in public or special circumstances: Garnsey and Saller 1989, 141.

⁶⁸ Brun 2003a, 9; Barnett 2014, 15.

⁶⁹ As suggested by Tchernia and Brun 1999, 31-37 and Poux and Dietler 2004, 14, 17. Cf. also Lupton 1996, 1 (looking at food consumption), Dietler 2006, 235-236 and even Nencini 2009, 264 about contemporary times.

⁷⁰ D’Arms 1995, 304.

⁷¹ Purcell 1985, 14; Bouvier 2001/2002, 246-248.

⁷² Arnold 1999, 88; Barnett 2014, 15; Martín i Oliveira 2015, 24. Cf., for example, Catoni 2010, 84-87 and Zaccaria Ruggiu 2003 for the social and political implications of Roman banquets.

⁷³ Cf., for example, Scheidel and Friesen 2009, 75-82 for calculations about incomes of ranks.

⁷⁴ Robert 1985, 154; De’ Siena 2012, 177.

⁷⁵ Veblen 1975 [1899]; cf. also Shack 1978, 212-213. The most used reference for demonstrating this ‘conspicuous consumption’ during Roman times is Trimalcio’s dinner in *Petr. Sat.*, 5-15, although the title of this work itself declares his intent and way of depicting it (about it cf. Conton 2007).

⁷⁶ Corrigan 1997, 23-26.

⁷⁷ Holleran 2012, 236-237. Cf. also De’ Siena 2012, 175-190; Cuéllar 2015, 192-193.

⁷⁸ Cf., for example, Martín Gutiérrez 2015.

⁷⁹ Nencini 2009, 231.

⁸⁰ Holleran 2012, 241-245; Erdkamp 2013, 276.

⁸¹ Corrigan 1997, 21; Courtney 1997, 95; Zaccaria Ruggiu 2003, 634; Holleran 2012, 238-240; Carannante *et al.* 2014, 181.

⁸² Salles 1983, 262-266; Staccioli 1985, 24-25; De’ Siena 2012, 132-136. For examples in Ostia cf. Kieburg 2008.

⁸³ Smith 2006, 480 refers that lower strata have choices, although referring to modern times. Nevertheless many people involved in trade (*negotatores*, *mercatores*, and *navicularii*) appear to have been freedmen or other individuals from lower ranks of the Roman society (D’Arms 1981, 15; Finley 1999, 50; Mattingly and Aldrete 2000, 150; Kehoe 2007, 550; Harris 2011, 178; Alföldy 2012, 289; for some examples in *Baetica* cf. Remesal Rodríguez

the Capital were very likely and heavily established by the ruling élite through a codified system which cared about the supply of all products in Rome that had to be available for everyone. On the other hand because, when and if a separate market meant to create only profit existed, the élite always tried to benefit from pecuniary incomes also from these buying/selling transactions⁸⁴, as it usually had many land possessions throughout the Empire which produced crops to be sold in the Capital⁸⁵.

IV. Conclusions

This study tried to combine all information coming from remains of amphorae and ancient sources to reconstruct part of the commerce to the Capital of the Empire and its port. The majority of amphorae and their content were transported by ships, because in spite of all the uncertainties and difficulties of travelling by sea, it was the easiest and cheapest way to commerce over long distances⁸⁶. Furthermore, all wines were imported to both cities because they had to have a market, someone consuming them, otherwise undertaking such a risky travel would have not been profitable enough. However, not all people could purchase the same products⁸⁷ in spite of having the same needs or tastes (direct or influenced ones⁸⁸) in consuming foodstuffs as a daily practice⁸⁹. What they bought and consumed can be understood not only for its nutrients and/or calorific properties, but also because it assumed meanings referred to the buying/consuming subjects⁹⁰. In fact, the creation of identities, which are both self-imposed and imposed by others⁹¹, could be assigned to sign-valued commodities⁹², in this way entrusting power and money (which is inversely related to prices⁹³) as two main social demonstrators⁹⁴. Therefore, the use of codes of consumption to reproduce and demonstrate people's membership to specific social ranks⁹⁵ (or to set groups apart⁹⁶) and 'to establish or enhance their location within the social order'⁹⁷ was very likely true also during Roman times, when products could be cheap for some and expensive for others⁹⁸. This can be reasonably true although prices of products are very little known⁹⁹ and they might not have been fixed in times, but fluctuating responding to production quantities,

1990, 364 and 2008; for a detailed analysis of *navicularii* cf. Di Salvo 1992, 183-598). At the same time it seems that the majority of wines were not aimed at the élite: Radaelli 2016, 85.

⁸⁴ Carandini 1989, 507; Whittaker 1989, 538-539. For a wider discussion about production and commerce for the élite and scholarship about theories cf. Tchernia 2011a, 19-55.

⁸⁵ Tchernia 1989, 534-536; Webster 1996, 3; Roth 2007, 86. Emperors and their families had private possessions, called *res privata*, that consisted of large estates, mines and workshops (Alföldy 1987, 147; Levrero 2012, 58-59). Senators always exploited their estates and commerce with provinces (D'Arms 1981, 154, 159, 162; cf. also Tchernia 1986, 116-119, 191-193 and Tchernia 2011a, 26-41) in order to increase their wealth. Even many equestrians were land owners (Harris 2011, 179) and some were involved in money lending, contracts, and tax-farming (Finley 1999, 49; Alföldy 2012, 283) again to increase their possessions.

⁸⁶ Rickman 1980, 262; Peacock & Williams 1986, 64; Morel 2007, 509.

⁸⁷ Whittaker 1989, 316-317.

⁸⁸ Harris 2011, 176.

⁸⁹ Smith 2006, 481.

⁹⁰ The so-called 'bygone objects' identified by Beaudrillard for which objects can be understood only as referred to a subject (Beaudrillard 1990, 43; Fabris 2000, 300-301).

⁹¹ White and Beaudry 2009, 210.

⁹² Leonini 1988. Nowadays this is linked to brands: Desmond 2003, 350-353; Petruzzellis and Chebat 2010, 137-160.

⁹³ Ritson and Hutchins 1995, 45.

⁹⁴ Leather 1992. This whole theory about consumer behaviour derives from Kellner 1989.

⁹⁵ Millett 1990, 38; Slater 1997, 139; Nadeau 2010, 25; Marzano 2013, 272; Pestle and Curet 2015, 200.

⁹⁶ Mintz and Du Bois 2002, 109; Jones 2015, 6. Cf. the example of pork for Jews during Roman times (with also references to ancient sources) in Rosenblum 2010.

⁹⁷ Crompton 1993, 171; Csikszentmihalyi 1993, 23; Nadeau 2010, 26; Rodríguez-Alegría 2015, 195.

⁹⁸ Loseby 2007, 6-7.

⁹⁹ Too scarce information is available to create valid conclusions about all products, despite all good intentions held by Temin 2013 about grain.

transport expenses, and demand¹⁰⁰. This might explain the presence in Rome of many amphorae containing wine with different qualities (and very likely with different prices) because they were meant to meet the needs of a large amount of consumers who belonged to different social ranks. Unfortunately it is impossible to clearly and surely define who consumed what in Rome or in Ostia, because many times the same form of amphora coming from an area could have been used to transport different wines which could have had diverse qualities¹⁰¹. In spite of this, looking at ancient sources and studies, a very hypothetical assumption can be made. The amount of analysed amphorae surely declared the importance of productions in North-Africa well before their increase in exports usually ascribed to the Late Antiquity. It is also possible to suggest that these wines coming from North-Africa were especially consumed by those ranks who were not totally poor, but not even rich because, although a few ancient authors seem to praise them, these sources do not provide any information to assume the consumption of these wines by the élite.

At the same time, by combining all data with reflections deriving from social sciences, this study confirmed that Romans (especially the élite) very likely knew about the quality of products, influenced their commerce and import to the Capital, and made choices when they had the chance to purchase, conditioned by social influences and by their belonging to a group, by their will to demonstrate to others a specific degree of prestige¹⁰², or by their will to emulate higher social ranks so as to obtain an elusive social standing¹⁰³. Changes in trade-flows in the Capital are usually considered as determined by alterations in economic and political strategies, following modifications in the ruling élite and its land possessions throughout the Empire¹⁰⁴. It is also possible to suppose that the phenomenon of changes, partly visible in this study, analysed and seen through the lens of consuming behaviour, can also be interpreted with something that Bourdieu identified for later periods. Higher social ranks might have needed to modify their taste in products in order to preserve their distinguishing distance from lower ranks of society¹⁰⁵, thus possibly creating the modification in the origins of traded foodstuffs that had been noticed especially during the Severan age. Since preferences are experienced as strictly connected to individuals and not fixed in time¹⁰⁶, the analysed fluctuations in trade-flows about this product (and this macro-origin) – usually seen from the point of view of economic changes only – can also be possibly ascribed to the Roman inhabitants who might have partly influenced the commerce of these wines and their import to the Capital¹⁰⁷, by requesting and purchasing them.

¹⁰⁰ Tchernia 2011a, 123–124, 130–131; Marzano 2013, 300.

¹⁰¹ Radaelli, forthcoming A.

¹⁰² Radaelli, forthcoming B.

¹⁰³ Slater 1997, 153, 156; cf. also the inscriptions *CIL* VI, 15258, cf. pages 3517, 3913 = *CIL* VI, 1649 cf. page 253 = *CIL* III, 129 = *CIL* XII, 33 = *ILS*, 8157 = *AE* 2010, 238 = Bücheler 1930, n. 1499 = EDR125875 and *CIL* XIV, 914 = *AE* 2010, 238 = Bücheler 1930, n. 1318 = Camodeca *et al.* 2000, 567 = Cugusi 2007, 173 = EDR152251. Simmel, in a small essay titled 'Zur Philosophie der Mode' dating 1895 (Simmel 1996), identified this phenomenon as based on its own capacity of satisfying two opposed inner forces that characterise individuals' psychology: imitation with its reassuring force and differentiation for the need of individuality. Moreover he stressed that through consuming prestige goods, individuals try to be assimilated to higher classes that, on the contrary, attempt avoiding those commodities that spread to lower classes and for this reason became banal (Courtney 1997: 95; Daccò 2005: 148). This phenomenon was called during the 1950s by Fallers the 'trickle-down effect': the continuous cycle of imitation-differentiation-imitation among higher and lower social classes which generates consumption (Fallers 1954; cf. also Van der Veen 2003, 409–410).

¹⁰⁴ Kehoe 2007, 549, 557.

¹⁰⁵ Corrigan 1997, 30.

¹⁰⁶ Gronow 1993, 293; Nadeau 2010, 24; Menghini 2012, 120–121. Cf. also the changes in the role of wine in Nencini 2009 from Ancient Middle Eastern societies to Christian communities.

¹⁰⁷ Panella 2011, 76.

V. Bibliographic references

- Alföldy, G. (1987): *Storia sociale dell'antica Roma* (Italian translation by A. Zambrini of Alföldy, G. (1943): *Römische Sozialgeschichte*, Wiesbaden), Bologna.
- _____ (2012): "La struttura sociale dell'impero Romano (età altoimperiale)", in R. Friggeri, M. G. Granino Cecere and G. L. Gregori (eds.), *Terme di Diocleziano. La collezione epigrafica*. Milano, 278-293.
- Arnold, B. (1999): "'Drinking the feast': Alcohol and the Legitimation of Power in Celtic Europe", *Cambridge Archaeological Journal*, 9 (1), 71-93.
- Barnett, C. (2014): "Alcoholic Beverages and Resistance to Roman Imperialism in Dalmatia", *Croatian Studies Review*, 10, 13-34.
- Beaudrillard, J. (1990): "Subjective Discourse in the Non-Functional System of Objects", in J. Beaudrillard, *Revenge of the Crystal. Selected writings on the Modern Object and its Theory 1968-1983*, [edited and translated by P. Foss and J. Petanis], London, 35-61.
- Biondi, S. F. (1986): "Pranzo a Cartagine", *Archeo. Attualità del Passato*, 16 (Giugno), 36-39.
- Bonifay, M. (2004): "Le vin d'Afrique", in J.-P. Brun, M. Poux, and A. Tchernia (eds.), *Le vin: Nectar des dieux, génie des hommes*, Gallion, 274-275.
- Bouvier, M. (2001/2002): "Le vin, boisson privilégiée des villes", *Cesarodunum. Bulletin de l'institut d'études latines et du Centre de recherches A. Piganiol*, 35, 241-253.
- Brun, J.-P. (2003a): *Le vin et l'huile dans la Méditerranée antique. Viticulture, oléiculture et procédés de transformation*, Paris.
- _____ (2003b): "Les pressoirs à vin d'Afrique et de Mauretanie à l'époque romaine", *Africa, Séances Scientifiques*, n.s., 1, 7-30.
- _____ (2004a): *Achéologie du vin et de l'huile. De la Préhistoire à l'époque hellénistique*, Paris.
- _____ (2004b): *Archéologie du vin et de l'huile dans l'Empire Romain*, Paris.
- Bruno, B. (2004): "Le anfore da trasporto", in D. Gandolfi (ed.), *La ceramica e i materiali di età Romana. Classi, produzioni, commerci e consumi*, Torino, 353-394.
- Bücheler, F. (1930): *Carmina Latina Epigraphica*, Leipzig.
- Buonopane, A. (2015): "I cereali nel mondo Romano. Le fonti letterarie", in G. Archetti (ed.), *Civiltà del pane. Storie, tecniche e simboli dal Mediterraneo all'Atlantico, Atti del Convegno, di Brescia 2015*, Spoleto, 67-82.
- Cagnat, R. (1914): "A new Roman Customs List", *Journal of Roman Studies*, 4, 143-146.
- Callender, M. H. (1965): *Roman amphorae: with index of stamps*, London.
- Camodeca, G., Solin, H. and Nasti, F. (2000): *Catalogo delle Iscrizioni Latine del Museo nazionale di Napoli (ILMN), 1. Roma e Latium*, Napoli.
- Capelli, C. and Bonifay, M. (2016): "Archeologia e archeometria delle anfore dell'Africa romana. Nuovi dati e problemi aperti", in A. F. Ferrandes and G. Pardini (eds.), *Le regole del gioco. Tracce Archeologi Racconti. Studi in onore di Clementina Panella*, Roma, 535-557.
- Carandini, A. (ed., 1973): *Ostia III, Studi miscellanei, Seminario di archeologia e storia dell'arte greca e Romana dell'Università di Roma*, 21.
- _____ (ed., 1977): *Ostia IV, Studi miscellanei, Seminario di archeologia e storia dell'arte greca e Romana dell'Università di Roma*, 23.
- _____ (1989): "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 M. Lenoir, D. Manacorda and C. Panella (eds.), *Amphores romaines et histoire économique. Dix ans de recherche. Actes du colloque de Sienne, 22 - 24 mai 1986*, Roma, 505-521.
- Carannante, A., Chilardi, S., Rebecchi, D., Del Santo, A. and Vedovelli, R. (2014): "Oysters, pheasants and fine foods. "High Class" products in Alife (Campania, Italy) during and after the Roman Empire", in K. Szabó, C. Dupont, V. Dimitrijević, L. Gómez

- Gastélum and M. Serrand (eds.), *Archaeomalacology: Shells in the Archaeological Record* (BAR, Internat. Ser., 2666), Oxford, 181-193.
- Catoni, M. L. (2010): *Bere Vino Puro. Immagini del simposio*, Milano.
- Ceci, M. (2006): "Un contesto medio imperiale dall'area dei Mercati di Traiano", in R. Meneghini and R. Santangeli Valenziani (eds.), *Roma, Lo scavo dei Fori Imperiali, 1995-2000. I contesti ceramici*, Roma, 25-56.
- Chafia, C. (2004): "Les relations commerciales de la Numidie et de la Maurétanie Césarienne avec Rome: notes préliminaires", in M. Khanoussi, P. Ruggeri and C. Vismara (eds.), *L'Africa Romana. Ai confini dell'Impero: contatti, scambi, conflitti. Atti del XV convegno di studio. Tozeur, 11-15 dicembre 2002, Vol. II*, Roma, 973-987.
- Cianfriglia, L. and Francini, S. (2008): "Via Portuense, Via P. Blaserna. Area funeraria e infrastrutture agricole (municipio XV)", *Bullettino della Commissione archeologica comunale di Roma*, CIX, 388-402.
- CIL = *Corpus Inscriptionum Latinarum*, Berlin, 1893–.
- Coletti, F. and Lorenzetti, E. G. (2010): "Anfore orientali a Roma. Nuovi dati dagli scavi della Soprintendenza Archeologica di Roma nell'area del Testaccio", *Rei Cretariae Romanae Fautorum acta*, 41, 155-164.
- Conton, R. (2007): "Dati economici sul banchetto nel I secolo d.C.: Trimalcione", in R. Bortolin and A. Pistellato (eds.), *Alimentazione e banchetto. Forme e valori della commensalità dalla preistoria alla tarda antichità*, Venezia, 115-123.
- Corrigan, P. (1997): *The Sociology of Consumption. An Introduction*, London.
- Courtney, P. (1997): "Ceramics and the history of consumption: pitfalls and prospects", *Medieval Ceramics*, 21, 95-108.
- Crompton, R. (1993): *Class and Stratification: An Introduction in Current Debate*, Cambridge.
- Csikszentmihalyi, M. (1993): "Why we need things", in S. Lubar and W. B. Kingery (eds.), *History from Things. Essays on Material Culture*, Washington and London, 20-29.
- Cuéllar, A. M. (2015): "Food and Inequality", in K. Bescherer Metheny and M. C. Beaudry (eds.), *Archaeology of Food. An Encyclopedia, Vol. 1: A-K*, Lanham, 191-193.
- Cugusi, P. (2007): *Per un nuovo Corpus dei Carmina Latina Epigraphica. Materiali e discussioni*, Roma.
- Daccò, M. (2005): *Capire il consumatore. I comportamenti di acquisto e la funzione marketing*, Milano.
- D'Arms, J. H. (1981): *Commerce and social standing in ancient Rome*, Cambridge (MA-USA)-London (UK).
- _____ (1995): "Heavy Drinking and Drunkenness in the Roman World: Four Questions for Historians", in O. Murray and M. Tecuşan (eds.), *In vino veritas*, London, 304-317.
- D'Escurac-Doisy, H. (1962): "Lámbeze et les vétérans de la legio III Augusta", in M. Renard (ed.), *Hommages à Albert Grenier, Vol. II*, Bruxelles, 571-583.
- De' Siena, S. (2012): *Il vino nel mondo antico. Archeologia e cultura di una bevanda speciale*, Modena.
- Desmond, J. (2003): *Consuming Behaviour*, Basingstoke.
- Dessau, H. (1892-1916): *Inscriptiones Latinae Selectae [ILS]*. Berlin.
- Dietler, M. (2006): "Alcohol: Anthropological/Archaeological Perspectives". *Annual Review of Anthropology*, 35, 229-249.
- Di Salvo, L. (1992): *Economia privata e pubblici servizi nell'Impero Romano. I Corpora Naviculariorum*, Messina.
- Douglas, M. (1974): "Food as an art form", *Studio International*, 188 (September), 83-88.
- _____ (1975): *Implicit Meanings: Essays in Anthropology*, London.
- _____ (1978): "Culture", *Annual report 1977-78 of the Russell Sage Foundation*, 55-81.
- EDR = *Epigraphic Database Rome*, <http://www.edr-edr.it>.
- Erdkamp, P. (2013): "The food supply of the capital", in P. Erdkamp (ed.), *The Cambridge Companion to Ancient Rome*, Cambridge, 262-277.

- Fabris, G. (2000): *Consumatore & Mercato*, (6th edition), Milano.
- Fallers, L. A. (1954): "Fashion: a note on the 'trickle effect'", *The public opinion quarterly*, 18 (3), 314-321.
- Fentress, L. (2001): "Villa, wine and kilns: the landscape of Jerba in the late Hellenistic period", *Journal of Roman Archaeology*, 14, 249-268.
- Ferrandes, A. F. (2008): "I contenitori da trasporto", in F. Filippi (ed.), *Horti et Sordes, Uno scavo alle falde del Gianicolo*, Roma, 247-283.
- Fiddes, N. (1996): "The omnivore paradox", in D. Marshall (ed.), *Food Choice and the Consumer*, London, 131-151.
- Finley, M. I. (1999): *The Ancient Economy (Updated edition with a foreword by I. Morris)*, Berkeley.
- Fischler, C. (1988): "Food, self and identity", *Social Science Information*, 27 (2), 275-292.
- _____ (1990): *L'Omni-vore: le gout, la cuisine et le corps*, Paris.
- Garnsey, P. (1988): *Famine and food supply in the Graeco-Roman world. Responses to risk and crisis*, Cambridge.
- Garnsey, P. and Saller, R. (1989): *Storia Sociale dell'Impero Romano*, (Italian translation by M. Caracciolo of Garnsey, P. and Saller, R. (1984), *The Roman Empire. Economy, Society and Culture*, London), Roma-Bari.
- Ghedini, F. E. (2000): "La vendemmia nei "tappeti di vite" africani", in D. Tomasi and C. Cremonesi (eds.), *L'avventura del vino nel bacino del Mediterraneo. Itinerari storici ed archeologici prima e dopo Roma. (Atti del simposio internazionale organizzato dall'Istituto Sperimentale per la Viticoltura di Conegliano e Centro Interdipartimentale per lo Studio Multidisciplinare della Cultura dell'Alimentazione dell'Università di Padova. Conegliano, 30 settembre - 2 ottobre 1998)*, Conegliano, 229-238.
- Gronow, J. (1993): "What is good taste?", *Social Science Information*, 32 (2), 239-301.
- Harris, W. V. (2011): *Rome's Imperial Economy. Twelve essays*, Oxford.
- Holleran, C. (2012): *Shopping in Ancient Rome. The Retail Trade in the Late Republic and Early Principate*, Oxford.
- Jones, S. (2015): "Archaeology and the Construction of Community Identities", in M. Nevell and N. Redhead (eds.), *Archaeology for All. Community Archaeology in the Early 21st Century: Participation, Practice and Impact. (University of Salford Applied Archaeology Series, 2)*, Leicester, 3-14.
- Jongman, W. M. (2007): "The early Roman Empire: Consumption", in W. Scheidel, I. Morris and R. Saller (eds.), *The Cambridge economic history of the Greco-Roman World*, Cambridge, 592-618.
- Kehoe, D. P. (2007): "The early Roman Empire: Production", in W. Scheidel, I. Morris and R. Saller (eds.), *The Cambridge Economic History of the Graeco-Roman World*, Cambridge, 543-569.
- Kellner, D. (1989): *Jean Beaudrillard: From Marxism to Postmodernism and Beyond*, Cambridge.
- Kieburg, A. (2008): "The Distribution of Catering Trade in Ostia Antica", in S. Baker, M. Allen, S. Middle and K. Poole (eds.), *Food and Drink in Archaeology, 1. University of Nottingham Postgraduate Conference 2007*, Blackatown, 57-64.
- Kingsley, S. (2001): "The Economic Impact of the Palestinian Wine Trade in Late Antiquity", in S. Kingsley and M. Decker (eds.), *Economy and Exchange in the Eastern Mediterranean during Late Antiquity. Proceedings of a conference at Somerville College, Oxford – 29th May, 1999*, Oxford, 44-68.
- Leather, S. (1992): "Less Money, Less Choice. Poverty and Diet in the UK today", in National Consumer Council (ed.), *Your Food: Whose Choice?*, London, 72-94.
- Leonini, L. (1988): *L'identità smarrita*, Bologna.
- Lequément, R. (1980): "Le vin africain à l'époque impériale", *Antiquités africaines*, 16, 185-193.

- Leveau, P. (2005): "À propos de l'huile et du vin in Afrique romaine ou pourquoi «deromaniser» l'archéologie des campagnes d'Afrique", *Pallas*, 68, 77-89.
- Lévi-Strauss, C. (1964): *Le cru et le cuit: Mythologiques, I*, Paris.
- _____ (1965): "Le triangle culinaire", *L'Arc*, 26, 19-29.
- _____ (1968): *L'Origine des manières de table: Mythologiques, III*, Paris.
- Levrero, R. (2012): *Storia dei traffici commerciali attraverso i secoli. Il commercio internazionale dei Romani*, Roma.
- Lissi Caronna, E. and Rizzo, G. (2009): "Roma (Regio II). – Via di Santo Stefano Rotondo. Scavi nella chiesa di Santo Stefano Rotondo", *Notizie degli scavi di antichità, Ser. IX, XVII-XVIII (2006-2007)*, 33-282.
- Lo Cascio, E. (2007): "The Early Roman Empire: The State and the Economy", in W. Scheidel, I. Morris and R. Saller (eds.), *The Cambridge economic history of the Greco-Roman World*, Cambridge, 619-647.
- Loseby, S. (2007): "The ceramic data and the transformation of the Roman world", in M. Bonifay and J.-C. Tréglià (eds.), *LRCW 2, Late Roman Common Wares, Cooking Wares and Amphorae in the Mediterranean, Archaeology and Archaeometry (BAR, Intenat. Ser., 1662)*, Oxford, 1-14.
- Lupton, D. (1996): *Food, the Body and the Self*, London.
- MacMullen, R. (1974): *Roman social relations, 50 B.C. to A.D. 284*, New Haven and London.
- Marlière, E. (2002): *L'outre et le tonneau dans l'Occident romain*, Montagnac.
- Martín Gutiérrez, I. (2015): "Cannabis in la Antigua Roma", [http://www.academia.edu/12619511/Cannabis en la antigua Roma](http://www.academia.edu/12619511/Cannabis_en_la_antigua_Roma) (31/08/2015).
- Martin-Kilcher, S. (1998): "Le vin dans la *Colonia Iulia Karthago*", in M. Comas i Solà and P. Padrós Martí (eds.), *El vi a l'antiguitat. Economia, producció i comerç al Mediterrani Occidental. Badalona 6-9 Maig 1998*, Badalona, 511-529.
- Martín i Oliveira, A. (2015): "Arqueología del vino in época Romana: Teoría económica, lógica productiva y comercial aplicada al envasado, la expedición, el transporte y la distribución de ánforas vinarias del noreste peninsular (s. I a.C.-I d.C.)", in V. Martínez Ferreras (ed.), *La difusión comercial de las ánforas vinarias de Hispania Citerior-Tarraconensis (s. I a.C. – I. d.C.)*, Oxford, 19-37.
- Marucci, A. (2006): "Foro Transitorio. Sistema di smaltimento delle acque del portico nord-occidentale: stratigrafia e materiali dei livelli di abbandono (Fasi II e III)", in R. Meneghini and R. Santangeli Valenziani (eds.), *Roma, Lo scavo dei Fori Imperiali, 1995-2000. I contesti ceramici*, Roma, 57-92.
- Marzano, A. (2013): *Harvesting the Sea. The Exploitation of Marine Resources in the Roman Mediterranean*, Oxford.
- Mattingly, D. J. and Aldrete, G. (2000): "The feeding of imperial Rome: the mechanics of food supply system", in J. Coulston and H. Hodges (eds.), *Ancient Rome. The Archaeology of the Eternal City*, Oxford, 142-165.
- Mazou, L. and Capelli, C. (2011): "A local production of Mid Roman 1 amphorae at Latrun, Cyrenaica", *Libyan Studies*, 42, 73-76.
- Menghini, S. (2012): "Cultura e mercati: Il comportamento postmoderno nel consumo del vino", in S. Menghini (ed.), *Symposion. La cultura del vino nella conoscenza storica e nelle strategie di mercato*, Firenze, 117-127.
- Meylan Krause, M.-F. (2002): *Domus Tiberiana: analyses stratigraphiques et céramologiques*, Oxford.
- Millett, M. (1990): *The Romanization of Britain: An essay in archaeological interpretation*, Cambridge.
- Mintz, S. W. and Du Bois, C. M. (2002): "The Anthropology of Food and Eating", *Annual Review of Anthropology*, 31, 99-119.
- Morel, J.-P. (1998): "Que buvaient les Carthaginois?", in M. Comas i Solà and P. Padrós Martí (eds.), *El vi a l'antiguitat. Economia, producció i comerç al Mediterrani Occidental. Badalona 6-9 Maig 1998*, Badalona, 29-38.

- Morel, J.-P. (2007): "Early Rome and Italy", in W. Scheidel, I. Morris and R. Saller (eds.), *The Cambridge Economic History of the Graeco-Roman World*, Cambridge, 487-510.
- Nadeau, R. (2010): *Les manières de table dans le monde gréco-romain*, Rennes.
- Nencini, P. (2009): *Ubbriachezza e sobrietà nel mondo antico. Alle radici del bere moderno*, Monte San Pietro (BO).
- Ollà, A. (2008): "Anfore Romane", in R. Leone and U. Spigo (eds.), *Tyndaris, 1. Ricerche nel settore occidentale: campagna di scavo 1993-2004*, Palermo, 279-287.
- Panella, C. (2001): "Le anfore di età imperiale del Mediterraneo occidentale", in P. Lévêque, and J.-P. Morel (dirs.) and E. Geny (ed.), *Céramiques hellénistiques et Romaines III*, Besançon and Paris, 177-275.
- Panella, C. (2011): "Roma, il suburbio e l'Italia in età medio- e tardo-repubblicana: cultura materiale, territori, economie", *Facta. A journal of Roman material culture studies*, 4, 11-123.
- Panella, C., Zeggio, S. and Ferrandes, A. F. (2014): "Lo scavo delle Pendici Nord-Orientali del Palatino tra dati acquisiti e nuove evidenze", *Scienze dell'Antichità. Storia Archeologia Antropologia*, 20 (1), 159-210.
- Panetta, V. (1996): "Anfore", in R. Volpe (ed.), *Aqua Marcia. Lo scavo di un tratto urbano*, Firenze, 159-180.
- Peacock, D. P. S. and Williams, D. F. (1986): *Amphorae and the Roman economy: an introductory guide*, London.
- Peña, J. T. (2007): *Roman Pottery in the Archaeological Record*, New York.
- Pestle, W. J. and Curet, L. A. (2015), "Food and Status", in K. Bescherer Metheny and M. C. Beaudry (eds.), *Archaeology of Food. An Encyclopedia, Vol. 1: A-K*, Lanham, 199-201.
- Petruzzellis, L. and Chebat, J.-C. (2010): *Comportamento del consumatore. Teoria e casi di studio*, Milano-Torino.
- Poux, M. and Dietler, M. (2004): "Du vin. Pour quoi faire?", in J.-P. Brun, M. Poux and A. Tchernia (eds.), *Le vin: Nectar des dieux, génie des hommes*, Gallion, 9-25.
- Protocole Beauvray (1998): "Protocole de la quantifications des céramiques", in P. Arcelin and M. Truffeau-Libre (eds.), *La quantification des céramiques. Conditions et Protocole. Actes de la Table ronde du Centre archéologique européen du Mont Beauvray (Glux-en-Glenne, 7-9 Avril 1998)*, Glux-en-Glenne, 141-157 (num. spéciale de I à XVII).
- Purcell, N. (1985): "Wine and Wealth in Ancient Italy", *The Journal of Roman Studies*, 75, 1-19.
- Radaelli, E. (2016): "The so-called '2nd century AD crisis' of Italian productions. Reflections from the remains of wine-amphorae discovered in the 'Terme di Elagabalo' in Rome", *Emergence. Humanities Graduate School Research Journal*, VIII: *Construction and Decay*, 79-90.
- _____ (2017): "Salse di pesce a Roma in età medio imperiale. Considerazioni dai ritrovamenti anforici presso le cd. "Terme di Elagabalo"", in A. Pontrandolfo and M. Scafuro (eds.), *Dialoghi sull'Archeologia della Magna Grecia e del Mediterraneo, Atti del I Convegno Internazionale di Studi (Paestum 7-9 Settembre 2016)*, Vol. IV, Paestum, 1043-1052.
- _____ (forthcoming A): "Anfore dai contesti Medio Imperiali delle "Terme di Elagabalo" a Roma e le loro implicazioni nel consumo alimentare di Roma tra l'inizio del II e l'inizio del III secolo d.C", in *Atti del VII Congresso AISU 'Food and the City'*.
- _____ (forthcoming B): "Los alimentos (vino y dátiles) de Palestina y Líbano en Roma y en Ostia durante el medio imperio (siglos II-principios del III d. C.): análisis de datos que derivan de las ánforas", in actas del VIII Congreso Internacional e Interdisciplinar de Jóvenes Historiadores, *La Alimentación in la Historia*.
- _____ (forthcoming C): "Los vinos Ibéricos en Roma (y Ostia) durante el Medio Imperio (siglos II-principios del III d. C.). Análisis y revisiones de datos", in actas del

simposio *Roma y la Península Ibérica. Variedad de relaciones desde la Antigüedad hasta la contemporaneidad*.

- Rebuffat, M. R. and Gabard, I. (1990): "La vigne et le vin au Maroc", *Caesardunum, Bulletin de l'Institut d'études latines et du Centre de recherches A. Piganiol*, XXIV (*Archéologie de la vigne et du vin, Actes du Colloque 28-29 Mai 1998, École normale supérieure, Paris*), 219-232.
- Remesal Rodríguez, J. (1990): "El sistema annonario como base de la evolución económica del Imperio Romano", *Pact. Revue du Groupe européen d'études pour les techniques physiques, chimiques et mathématiques appliquées à l'archéologie*, 27, 355-367.
- _____ (2008): "Olearii", in M. L. Caldelli, G. L. Gregori and S. Orlandi (eds.), *Epigrafia 2006. Atti della XIV^e rencontre sur l'épigraphie in onore di Silvio Panciera con altri contributi di colleghi, allievi e collaboratori (Tituli 9)*, Roma, 349-373.
- Rickman, G. E. (1980): "The grain trade under the Roman Empire", in J. H. D'Arms and E. C. Kopff (eds.), *The Seaborne Commerce of Ancient Rome, Studies in Archaeology and History (Memoirs of the American Academy in Rome, XXXVI)*, Rome, 261-275.
- Ritson, C. and Hutchins, R. (1995): "Food choice and the demand for food", in D. Marshall (ed.), *Food Choice and the Consumer*, London, 43-76.
- Rizzo, G. (2003): *Instrumenta urbis I. Ceramiche fini da mensa, Lucerne ed anfore a Roma nei primi due secoli dell'impero*, Roma.
- _____ (2014a): "Le anfore dell'area NE", *Studi miscellanei*, 38 (Ostia VI), 73-370.
- _____ (2014b): "Ostia, le anfore e i commerci", *Studi miscellanei*, 38 (Ostia VI), 393-431.
- Robert, J.-N. (1985): *I piaceri a Roma* (Italian translation by C. Guagnelli of the original *Les plaisirs à Rome*, Paris), Milano.
- Rodríguez-Alegría, E. (2015): "Food and Politics", in K. Bescherer Metheny and M. C. Beaudry (eds.), *Archaeology of Food. An Encyclopedia, Vol. 1: A-K*, Lanham, 193-195.
- Rosenblum, J. D. (2010): "'Why Do You Refuse to Eat Pork?'. Jews, Food, and Identity in Roman Palestine", *The Jewish Quarterly Review*, 100 (1), 95-110.
- Roth, R. E., (2007): *Styling Romanisation. Pottery and Society in Central Italy*, Cambridge.
- Saguì, L. (2013): "Area delle "Terme di Elagabalo": tre millenni di storia alle pendici del Palatino", in C. Panella (ed.), *Scavare nel centro di Roma. Storie Uomini Paesaggi*. Roma: Quasar, 133-151.
- Saguì, L. and Cante, M. (2015): "Archeologia e architettura nell'area delle "Terme di Elagabalo" alle pendici nord-orientali del Palatino. Dagli isolati giulio-claudii alla chiesa paleocristiana", *THIASOS, Rivista di archeologia e architettura antica*, 4, 37-75.
- Salles, C. (1983): *I bassifondi dell'antichità* (Italian translation by R. Pelà of the original *Les bas-fonds de l'antiquité*, Paris), Milano.
- Sandberg, K. (2005): "Re-constructing the political system of Republican Rome. A re-consideration of approach and methodology", *Arctos – Acta Philologica Fennica*, XXXIX, 137-157.
- Sanz Palomera, G. (2010): *La Annona y la política agraria durante el alto Imperio Romano (BAR, Internat. Ser., 2112)*, Oxford.
- Scheidel, W. and Friesen, S. J. (2009): "The Size of the Economy and the Distribution of Income in the Roman Empire", *The Journal of Roman Studies*, 99, 61-91.
- Shack, D. N. (1978): "Taster's Choice: Social and Cultural Determinants of Food Preferences", in J. Yudkin (ed.), *Diet of Man: Needs and Wants*, London, 209-224.
- Simmel, G. (1996): *La Moda* [Italian transl. by L. Petrucchi of Simmel, G. (1911): "Die Mode", in Simmel, G., *Philosophische Kultur. Gesammelte Essays*, Leipzig], Milano.
- Slater, D. (1997): *Consumer Choice and Modernity*, Cambridge.
- Smith, M. L. (2006): "The Archaeology of Food Preference", *American Anthropologist*, 108 (3), 480-493.

- Staccioli, R. A. (1985): “*Un giorno nell’antica Roma*”, *Archeo. Attualità del Passato – Dossier*, Novara.
- Symonds, R. P. and Haynes I. (2007): “Developing Methodology for Inter-Provincial Comparison of Pottery Assemblages”, in R. Hingley and S. Willis (eds.), *Roman Finds: Context and Theory. Proceedings of a conference held at the University of Durham*, Oxford, 67-76.
- Tchernia, M. A. (1986): *Le Vin de l’Italie romaine: essai d’histoire économique d’après les amphores*, Rome.
- _____ (1989): “Encore sur le modèles économiques et les amphores”, in M. Lenoir, D. Manacorda and C. Panella (eds.), *Amphores romaines et histoire économique. Dix ans de recherche. Actes du colloque de Sienne, 22 - 24 mai 1986*, Rome, 523-527.
- _____ (2006): “La crise de l’Italie impériale et la concurrence des provinces”, *Cahiers du Centre de Recherches Historiques*, 37 (April), 137-156.
- _____ (2011a): *Les Romains et le Commerce*, Naples.
- _____ (2011b): “Entrepôt et cargaisons complémentaires sur la route du blé d’Alexandrie”, in A. Tchernia, *Les Romains et le Commerce*, Naples, 335-349.
- Tchernia, M. A. and Brun, J.-P. (1999): *Le vin romain antique*, Grenoble.
- Temin, P. (2013): *The Roman Market Economy*, Princeton.
- Terrenato, N. (2015): “The archetypal imperial city: the rise of Rome and the burdens of empire”, in N. Yoffee (ed.), *The Cambridge World History, Volume 3: Early Cities in Comparative Perspective, 4000 BCE–1200 CE*, Cambridge, 513-531.
- Van der Veen, M. (2003): “When is a food a luxury?”, in M. Van der Veen (ed.), *World Archaeology*, 34, *Special Issue: Luxury Foods*, 405-427.
- Veblen, T. (1975): *The theory of the Leisure Class: An Economic Study of Institutions*. New York, [reprint of the 1899 edition].
- Vera, D. (2010): “Fisco, Annona e Commercio nel Mediterraneo tardoantico: destini incrociati o vite parallele?”, in S. Menchelli, S. Santoro, M. Pasquinucci and G. Guiducci (eds.), *LRCW 3, Late Roman Coarse Wares, Cooking Wares and Amphorae in the Mediterranean. Archaeology and archaeometry. Comparison between western and eastern Mediterranean (BAR, Internat. Ser., 2185, I-II)*, Oxford, 1-18.
- Webster, J. (1996): “Roman imperialism and the ‘post imperial age’”, in J. Webster and N. Cooper (eds.), *Roman Imperialism: Post-Colonial Perspectives*, Leicester, 1-17.
- White, C. L. and Beaudry, M. C. (2009): “Artifacts and Personal Identity”, in T. Majewski and D. Gaimster (eds.), *International Handbook of Historical Archaeology*, New York, 209-225.
- Whittaker, C. R. (1989): “Il povero”, in A. Giardina (ed.), *L’uomo Romano*, Roma-Bari, 299-333.
- Wilson., A. (2007): “Fish-Salting workshops in Sabratha”, in L. Lagóstena, D. Bernal and A. Arévalo (eds.), *Cetariae 2005. Salsas and salazones de Pescado in Occidente durante la Antigüedad. Actas del Congreso Internacional (Cadiz, 7-9 de noviembre de 2005)*, (BAR, Internat. Ser., 1868), Oxford, 173-181.
- Zaccaria Ruggiu, A. (2003): “Ruolo dell’élite politica e sociale e spazio del banchetto”, in M. Cébeillac-Gervasoni and L. Lamoine (eds.), *Les élites et leur facettes. Les élites locales dans le monde hellénistique et romain*, Rome and Clermont-Ferrand, 627-660.

V.1. Fuentes clásicas

- Apuleius, *Apology sive Pro se de magia*, English transl. Butler H. E., 1909.
- C. Iulius Caesar, *Bellum Africum*, English transl. Way, A. G., 1955.
- Columella, *De re rustica*, Vol 1: Books I–IV, English transl. Ash, H. B., 1941.
- Columella, *De re rustica*, Vol. 2: Books V–IX, English transl. Forster E. S. and Heffner E., 1954.
- Columella, *De re rustica - De arboribus*, Vol. 3: Books X–XII and On Trees, English transl. Forster E. S. and Heffner E., 1955.

Diodorus, *Bibliotheca Historica*, Vol. 10: XIX.66–XX, English transl. Geer R. M., 1954.
Petronius, Satyricon., Italian transl. Chiara, P., 1969.
Pliny the Elder, *Naturalis Historia*, Vol. 2: Books III–VII, English transl. Rackham, H., 1942.
Pliny the Elder, *Naturalis Historia*, Vol. 4: Books XII–XVI, English transl. Rackham, H., 1945.
Strabo, *Geographia*, Vol. VIII, Book XVII and General Index, English transl. Jones, H. L.,
1932.

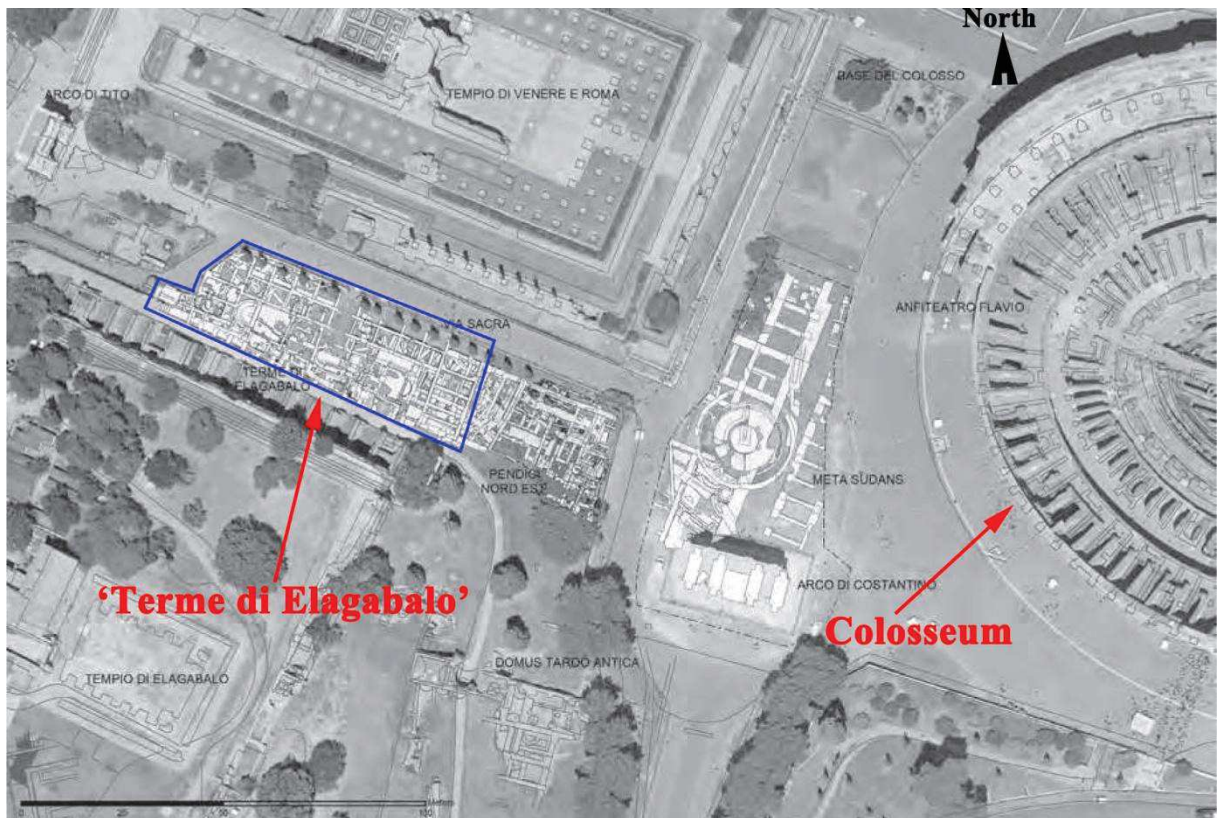


Fig. 1: Vertical picture of the Western portion of the Colosseum's valley. Source: After Panella *et al.* 2014: 160, fig. 1, with modifications by the author

ORIGINS	FORMS	CONTENT	LITRES	ROLE	TRAJANIC AGE - AMPHORAE			HADRIANIC AGE - AMPHORAE			ANTONINE AGE - AMPHORAE			SEVERAN AGE - AMPHORAE		
					ELAGABALO	ROMA	OSTIA	ELAGABALO	ROMA	OSTIA	ELAGABALO	ROMA	OSTIA	ELAGABALO	ROMA	OSTIA
ANCIENT TUNISIA	'PSEUDO DRESSSEL 1'	WINE	UNID.	RESIDUAL	-	-	-	-	-	-	-	1	-	-	-	-
ANCIENT TUNISIA	DRESSSEL 2-4	WINE	30	IN PHASE	-	-	-	-	-	-	-	4	9	13	-	-
ANCIENT TUNISIA	'PSEUDO DRESSSEL 2-4'	WINE	30?	IN PHASE	-	-	-	-	-	-	-	-	-	1	-	-
ANCIENT TUNISIA	OSTIA IV, 447	WINE?	30?	IN PHASE	-	-	-	-	-	-	3	-	11	-	2	
ANCIENT TUNISIA	DRESSSEL 2-4/OSTIA IV, 447	WINE?	30?	IN PHASE	-	-	-	-	-	-	-	-	-	243	-	
ANCIENT TUNISIA	MID ROMAN 1 = AGORA M254	WINE	18.12	IN PHASE	-	-	-	1	-	-	-	1	-	4	2	3
ANCIENT TUNISIA	DRESSSEL 30	WINE	22.5*	IN PHASE	-	-	-	-	-	-	-	-	-	2	-	-
ANCIENT TUNISIA	AFRICANA III/ IIIA	WINE?	27.5*	INTRUSIVE	-	-	-	-	-	-	-	-	-	2	1	-
TRIPOLITANIA	MAU XXXV	WINE	11	IN PHASE	-	33	23	1	72	17	-	135	147	23	19	17
MAURETANIA CAESARIENSIS	DRESSSEL 30	WINE	22.5*	IN PHASE	-	-	-	1	84	3	-	11	1	12	8	9
MAURETANIA CAESARIENSIS	OSTIA VI, 401-402 = BONIFAY 2004, TYPE 30?	WINE?	UNID.	IN PHASE?	-	-	-	-	-	-	-	-	1	-	-	-
MAURETANIA CAESARIENSIS	SMALL DRESSSEL 30	WINE	UNID.	INTRUSIVE	-	-	-	-	-	-	-	-	-	-	-	1

Fig. 2: Quantifications of North-African amphorae containing wine found in the 'Terme di Elagabalò', Rome, and Ostia with data about their geographical origin, form, and litres. Asterisks refer to average ostia volumes. Source: Elaborated by the author

WINE QUANTIFICATIONS		ITALY		GAUL		IBERIAN PENINSULA (INCLUDING DEFURTUM)		NORTH AFRICA								ORIENT		UNIDENTIFIABLE	
								ANCIENT TUNISIA		TRIPOLITANIA		MAURETANIA CAESARIENSIS		TOTAL NORTH AFRICA					
		LITRES	%	LITRES	%	LITRES	%	LITRES	%A	LITRES	%A	LITRES	%A	LITRES	%	LITRES	%	LITRES	%
TRAJANIC AGE	ROMA	18,248.2	34.5%	13,071	24.7%	2887	5.5%	0	0%	363	0.7%	0	0%	363	0.7%	18,282.2	34.6%	0	0%
	OSTIA	1,854.32	30.1%	2,546	41.3%	534	8.7%	0	0%	253	4.1%	0	0%	253	4.1%	857.26	13.9%	120	1.9%
HADRIANIC AGE	ROMA	70,270.78	29.4%	23,342	9.8%	6388	2.7%	18,12	0.01%	803	0.34%	1,912.5	0.80%	2,733.62	1.1%	136,404.52	57.0%	0	0%
	OSTIA	1,716.8	29.9%	2,112	36.8%	516.25	9.0%	0	0%	187	3.3%	67.5	2.2%	254.5	4.4%	748.96	13.1%	390	6.8%
ANTONINE AGE	ROMA	6,081.02	33.2%	3,222	17.6%	383.75	2.1%	228.12	1.2%	1,485	8.1%	247.5	1.4%	1,960.62	10.7%	6,671.31	36.4%	0	0%
	OSTIA	12,297.12	31.6%	13,613.75	35.0%	2571.25	6.6%	270	0.7%	1,617	4.2%	22.5	0.1%	1,909.5	4.9%	8,537.72	21.9%	0	0%
SEVERAN AGE	ROMA	2,480.26	12.8%	2,325	12.0%	457.5	2.4%	8,193.72	42.2%	462	2.4%	450	2.3%	9,105.72	47.1%	4,974.31	25.7%	0	0%
	OSTIA	1,161.2	26.0%	1,449	32.5%	135.75	3.0%	114.36	2.6%	187	4.2%	202.5	4.5%	503.86	11.3%	1,142.9	25.6%	66	1.5%

Fig. 3: Quantifications of litres from all origins (and North-African sub-origins) and absolute percentages (abbreviated % or %A) calculated from all amphorae found in Rome and Ostia. Source: Elaborated by the author