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## The amphorae of the western Adriatic: an update

Marie-Britte Carre, Stefania Pesavento Mattioli

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# Pottery Production, Landscape and Economy of Roman Dalmatia

Interdisciplinary approaches

edited by

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# The amphorae of the western Adriatic: an update

Marie-Brigitte Carre and Stefania Pesavento Mattioli

## Abstract

In this contribution a short overview of studies regarding western Adriatic amphorae production is outlined, taking into consideration the three main typologies: wine, olive oil and fish-sauce amphorae. Also, new data derived from recent studies is analysed and contextualised within the topics of chronology, production and distribution of Adriatic products.

**Keywords:** Western Adriatic amphorae, amphorae production, amphorae epigraphy

In the final lines of the short synthesis on wine amphorae production in the Adriatic territories presented at the Colloquy at Crikvenica in 2011, it was hoped that in the future new evidence about this production along the eastern Adriatic coast could be obtained by Croatian colleagues with convincing data and rigorous methodology, as they have a better understanding of the territories and their history, as well as a better insight into published and unpublished data on various findings.<sup>1</sup> After the discovery of the kilns at Crikvenica those auspices are becoming reality, also thanks to the project *Roman Economy in Dalmatia: production, distribution and demand in the light of pottery workshops* (RED), by now in its conclusive phases.

In recent years, various synthetic works have provided an overview of amphorae production on the western Adriatic coast (Carre and Pesavento Mattioli 2003a; Cipriano and Mazzocchin 2012; Carre *et al.* 2014; Cipriano and Mazzocchin 2017). There are few new points of interest to raise, although it is useful to propose here a short overview of the steps that led to the current conclusions.

As is known, in Vol. XV of the *Corpus Inscriptionum Latinarum* Heinrich Dressel classified as Dressel 6 all the amphorae from Rome which, thanks to a detailed epigraphic analysis, were later attributed to Adriatic production. Afterwards, wine and oil amphorae were distinguished, and today the denominations Dressel 6A and Dressel 6B are widely used for them. For the Republican age we have also the Lamboglia 2 amphorae, which were firstly thought of as Apulian *oleariae* but whose primary destination as wine containers is now firmly established (cf. Carre and Pesavento Mattioli forthcoming). The many amphorae finds, often of

whole vessels, since they were frequently reused in drainage systems (there are numerous examples from Veneto, Emilia and northern Italy) or other structures, allowed a better analysis of the containers' morphology, a more precise chronology, and how to determine the evolution of the various shapes. It was also possible to prove as Adriatic various shapes which are not present within Dressel's table (Greco-Italic, flat-bottomed, with funnel-shaped rim and small fish amphorae). The rich stamp evidence on Adriatic amphorae has allowed the grouping of productions from the same workshops and sometimes also their attribution to individuals known from literary sources or epigraphic stone monuments.

The course of the research has allowed us to connect the productive possibilities of the various territories, as delineated by ancient authors or later sources, to the remains of structures for the various phases of processing grapes and olives, and also fish; a key contribution, although often limited by scarce archaeological evidence, has been provided by the identification of kilns. Archaeometric characterisation of ceramic bodies has sometimes provided only generic data, or has led to the exclusion of certain territorial areas, because of the almost complete lack of significant reference groups whose homogeneous nature is determined by their provenance from the same kiln or by their epigraphic uniformity. Thus, we reached the current conclusions, which, although susceptible to future adjustments, remain as the foundations for future research.

We can now provide a very synthetic overview of these conclusions, while references on single finds or specific problems are available within the afore-mentioned synthetic works. We think, on the other hand, that it is important to underline novelties brought forth by some recent studies on archaeological sites where amphorae are abundant, in particular those of Canale Anfora in Aquileia, the

<sup>1</sup> Pesavento Mattioli 2014: 195. The contribution emerged in relation to the proposition of a Dalmatian origin of the Lamboglia 2 and Dressel 6A amphorae (Lindhagen 2009). For other observations on this hypothesis, cf. Carre *et al.* 2014 and now Paci 2016: 537-540.

Parco Novi Sad in Modena, and the Nuovo Mercato Testaccio in Rome, which have substantially enriched the data on various aspects.<sup>2</sup>

### Oil amphorae

Articulated studies on the production of Apulian and Istrian kilns, the numerous finds from the Cisalpine, and the rich and much analysed epigraphic corpus that has been often connected with archaeometric data have all enabled the presentation of a first tentative classification of oil amphorae (Carre and Pesavento Mattioli 2003b; Cipriano 2009). This resulted in a chrono-typological seriation, which, without entering here into an in-depth analysis, spans from the Republican age with ovoidal Brindisian (mid 2nd century BC to Augustan times) and mid-Adriatic (starting from the 1st century BC, but seeming to cease with the Augustan age) amphorae. For the former, the best known and studied kiln sites are those of Apani (Palazzo 2013) and Giancola (Manacorda, Pallecchi 2012); for the mid-Adriatic area only one production centre, that of Cologna Marina (Roseto degli Abruzzi, Teramo), is known, which produced also Lamboglia 2 (Carre *et al.* 2014: 422).

These are followed by Imperial age containers, subdivided into different phases. For the first phase of Dressel 6B (end of the Republic to Augustan times) no certain kilns are known, although they were probably manufactured in the mid-Adriatic area, in Cisalpine (as evidenced by archaeometric analysis and epigraphy) and in Istria. For the second phase Dressel 6B (end of Augustan times to c. AD 70) production is supposed in Cisalpine and in the mid-Adriatic area (Potenza Picena-Casa Valentini, Macerata).<sup>3</sup> The largest output is nevertheless that of Istrian manufacture from the Loron kiln site in *Parentium* territory, and from the *gens Laecania* at Fažana. Stamps allow us to follow the production of Loron from the Augustan age and that of Fažana from Tiberian times, as well as their

transmission into Imperial possession, i.e. Domitian at Loron and Vespasian at Fažana.

In the following period Istrian kiln sites seem to be the only ones active, or at least the only ones to be recognised as such: production is testified by the third-phase Dressel 6B, with stamps of Domitian and Hadrian at Loron, and Vespasian and Hadrian examples from Fažana. For the fourth-phase Dressel 6B, again recognised only within Istrian production sites, a significant context is that of Canale Anfora in Aquileia: its chronology justifies the low quantities of Dressel 6B of the first three phases, while very consistent (more than 300 vessels, corresponding to 65% of the total Dressel 6B) are the quantities of those of the fourth phase, datable within the 2nd and 4th centuries AD. Therefore, it was possible to subject them to thorough analysis, allowing us to distinguish Loron and Fažana products and their different variants, and to add to the group smaller examples similar to the small fish amphorae (cf. *infra*) but lacking the inner resin lining, which was otherwise preserved within this context, and to enlarge the panoramic compass of the stamps (Figure 1).<sup>4</sup>

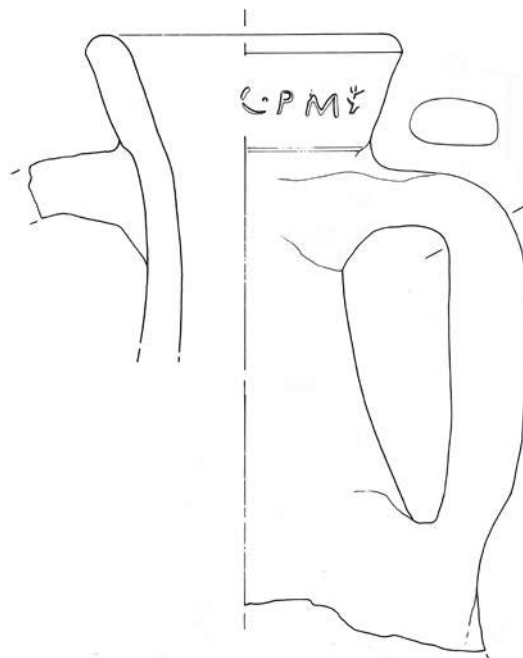


Figure 1. Fourth-phase Dressel 6B amphora with the stamp C.P.M. (palma) (Gaddi and Maggi 2017: 302, fig. 75).

<sup>2</sup> An excavation carried out in 2004-2005 investigated a section of Canale Anfora, one of the waterways that constituted the harbour system of Aquileia, which was slowly infilled between the last years of the 1st and the 3rd centuries AD and was totally filled within the 4th century. Numerous material has been excavated, among which is a large quantity of amphorae with a wider Mediterranean provenience (cf. Maggi *et al.* (eds) 2017). At the Parco Novi Sad in Modena, three large amphorae structures constructed for consolidation and preventive terrain drainage have been identified, begun in Julio-Claudian times and later reused as dumping sites (Labate *et al.* 2017: 41-48; Rigato and Mongardi 2017: 98-102, 111-113). In Rome, close to the remains of the Emporium and Monte Testaccio, the excavations for a new public market have brought to light buildings of a functional character; below the mid-Imperial *horreum* levels, an older one has been identified, characterised by rows of transport containers, sometime true walls of amphorae, datable from Augustan times to the end of the 1st century (Cafini and D'Alessandro 2010; D'Alessandro 2011; D'Alessandro 2013).

<sup>3</sup> Vermeulen *et al.* 2009: 94-95, Table 2. The Dressel 6B are indicated as contemporary to Dressel 6A in two phases, from 50 BC to AD 50, but typological indications are not precise.

<sup>4</sup> Gaddi and Maggi 2017: 286-308. The study of oil amphorae and their stamps, to which we refer for further details, was conducted by P. Maggi.



Figure 2. Funnel-shaped rim amphora stamped C.IVLI/MARCELLI (Gaddi and Maggi 2017: 312, fig. 88).

distribution, chronology (from beginning/mid 1st century to mid 3rd century AD) and area of origin (mid-Adriatic area, Cisalpine, *Picenum*), we now have a very complete picture (Mazzocchin 2009). They are common within the Canale Anfora materials (Gaddi and Maggi 2017: 308-313), where one example obliged us to rethink the problem of their contents: an amphora stamped C.IVLI MARCELLI, which is the only one with funnel-shaped rim from this context to bare traces of resin on the inner surfaces. As the same stamp appears on flat-bottomed wine amphorae, this evidence might support the possibility that within the same workshops different shapes were manufactured for different kinds of wine, or that a shape usually used for oil had been used for wine (for the stamp see Cipriano and Mazzocchin 2016: 218-220) (Figure 2).

### Wine amphorae

Recently we presented a contribution to Greco-Italic, Lamboglia 2, Dressel 6A and Dressel 2-4 amphorae, destined to carry Adriatic wines, between the Republican age and the first decades of the 2nd century AD, to which we refer for an overview of certain, and hypothesised, production sites.<sup>5</sup> Here we will focus on several points in order to revive discussion or bring forth new data.

On the problem of production sites, the Locavaz site near Aquileia is to be definitively excluded for

<sup>5</sup> For conclusions and bibliographic references, see Carre *et al.* 2014; for an overview of kiln sites, see also Cipriano and Mazzocchin 2017.



Figure 3. Lamboglia 2 amphora from Matelica (Macerata) (Paci 2016: 541, figs 1-2).

Lamboglia 2 production (Ventura and Capelli 2017), while a revision of the materials from Torre delle Oche at Maranello (Modena) has confirmed the production of a shape transitional from late Greco-Italic to Lamboglia 2 (Corti 2017). For the latter type, whose stamps are usually not very revealing, a significant novelty is that of a rim fragment with the name *C. Attius* and with the indication *Matilici(s)*, which has been interpreted as indicating its origin from Matelica (Pescara), an area renowned for wine production (Paci 2016) (Figure 3).

The epigraphic corpus of the 'classic' Dressel 6A has been significantly enriched by materials from Modena and the Nuovo Mercato Testaccio in Rome: many stamps of well-know individuals were, in fact, present there, such as *T. Helvius Basila*, *C. Iulius Poly(bius)* with *Barbula*, *Caristianus Fronto*, the *Herennii*, and other previously unknown entrepreneurs active in the mid-Adriatic area.<sup>6</sup>

A recent revision of stamps found on northern Italian Dressel 6A amphorae (Pesavento Mattioli and Mongardi 2018) allowed an updating of the occurrences of members of the *gens Valeria* (c. 15 examples) and of the *gens Gavia* (18 examples). Among these a new stamp from Bologna might refer to a moment successive to the manumission of *Licinus*, already known as *servus* on three other examples, as it mentions *L. Gavius Licinus*; the same person might be mentioned as *sevirus* on a stone monument from Aquileia (*InscrAq* 599 = EDR117625), in whose territory this family's production might be placed (Figure 4).

<sup>6</sup> For Modena: Mongardi 2016; Rigato and Mongardi 2017. For the Nuovo Mercato Testaccio: D'Alessandro 2011; D'Alessandro 2013.





Figure 4. Stamp of the freedman L. Gavius Licinus (Curina, Mongardi 2018: 283).

The most articulated and numerous group (65 examples) of northern Italian wine containers, as testified by the plurality of dies and the presence of numerous *offinatores*, is that on which the *dominus's nomen* in genitive is variously abbreviated as EBID, EBIDI, EBIDIE and EBIDIENI. By a careful re-examination of the whole documentation it has been concluded that the vessels are not to be attributed to two distinct productions, that of the *Ebidii* and that of the *Ebidieni*, as was previously thought (Pesavento Mattioli and Buonopane 2005), but all stamps are to be linked to a single workshop connected to the *gens Ebidiena*. Perhaps their production was localised in Emilia, especially in light of the frequency of their stamps on Dressel 2-4 amphorae, a shape widely produced in the *Regio octava*. Within this region, along with the production of Dressel 2-4 amphorae (for a list of kiln sites, see Cipriano and Mazzocchin 2017) that of flat-bottomed shapes is also very common. At Canale Anfora this type represents the clear majority among Italic wine amphorae (91% with 467 examples), confirming its wide distribution in the Adriatic area in mid-Imperial times. The most consistent grouping, composed of all variants, can be linked to the large production centre of Forlimpopoli. The deposition conditions of Canale Anfora allowed the preservation of several *tituli picti*, now identified for the first time on these containers: they mostly refer to numeric series interpreted as ponderal indications (Maggi 2016: 431-435). Other containers are to be referred to kiln sites in Romagna, particularly to those in Santarcangelo, but many remain without attribution, expanding the picture of known productions (Gaddi and Maggi 2017: 263-284).

### Fish-sauce amphorae

On the occasion of the 2007 Conference (cf. Pesavento Mattioli and Carre (eds) 2009) an overview of all aspects of production and commercialisation of local fish products along the northern Italian coast was presented. While there is a lack of archaeological evidence for fish processing plants, the data on containers is plentiful:

these are reused Dressel 6A or 6B, but mostly small amphorae of the kind widely attested within the cargo of the wreck not far from Grado, on the coast of Aquileia, and for which *tituli picti* testify a content of fish-sauces, in particular *liquamen* (Auriemma 2000). A first typological classification was proposed (Carre *et al.* 2009), which however did not lead to the identification of their production sites, as they do not appear within known kiln sites, with the only exception being Loron.

Archaeometric analysis did not help either, as although the samples did form an homogenous group, no analogies with groups of certain or hypothesised origin could be found.

Many new finds or newly recognised specimens were to follow, for example in the territory of Modena (Mongardi and Rigato 2013), and in particular within the Canale Anfora assemblage, where 136 individuals have been recognised, forming a significant sample from the morphological standpoint as well, and confirming the validity of the proposed classification while enlarging it with another variant.<sup>7</sup> Within all Aquileian small amphorae, thanks to the characteristics of the deposit, resin linings were preserved, which distinguishes them from the small Dressel 6B; moreover, *tituli picti* appear on eight examples indicating *liquamen*, *muria* and numerals; two of them explicitly mention *liquamen Aquileiense*, allowing the identification of a local origin for the fish-sauce (Maggi 2016: 426-427) (Figure 5).

### Concluding remarks

The picture of foodstuff containers (oil, wine, fish-sauces, but also olives, stored and commercialised in vessels of a truncated cone shape/Schorgendorfer 558, for which a Picenian origin is supposed, cf. Pesavento Mattioli 2011) produced in Adriatic Italy has become more and more articulated over the last thirty years

<sup>7</sup> Gaddi and Maggi 2017: 314-327. Typological analysis of the small amphorae and the *tituli picti* interpretation were conducted by P. Maggi.

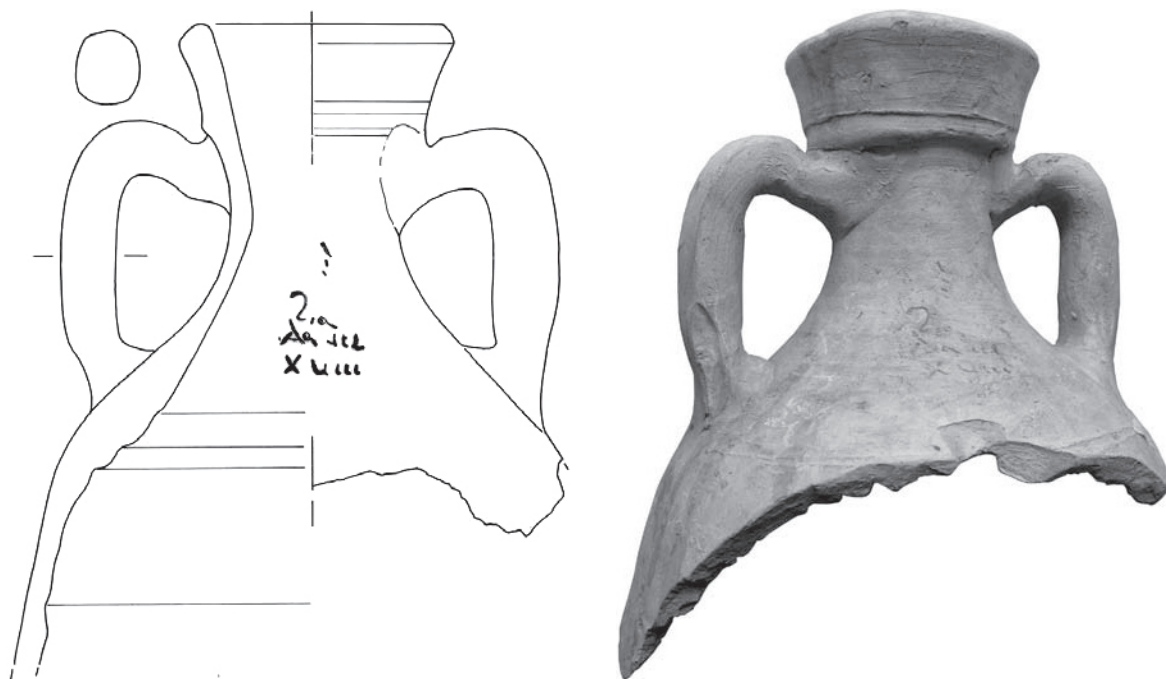


Figure 5. Small fish-sauce Adriatic amphora bearing the painted inscription LIQ(uamen)/ AQVIL(eiense)/ XVIII (Gaddi and Maggi 2017: 323, fig. 105).

and will certainly be enriched in the future by new finds.

The commercialisation of the amphorae and their contents follows directories that vary in time and on the basis of the production sites. Without returning to the matter of their reconstruction, for which we refer to the above-mentioned synthetic works, we would nevertheless mention that in recent excavations at Frejus, within late Republican layers, an anomalous amount of Adriatic wine and oil amphorae has been detected: within the imported vessels their percentages exceed those of Tyrrhenian containers (Rivet 2015: 180), an abundance which is in contrast with the rest of the Provençal coast. We can also single out the wreck from Cap Gros C (Carre 2000), unfortunately badly preserved, which transported mid-Adriatic oil amphorae, and which could be connected with the presence at Frejus of the military prefecture and of an important figure who might have shipped there the products of his Adriatic *fundi* (Carre forthcoming).

We would also remark that the distribution of Dressel 6A, particularly intense until AD 30, allows us to further distinguish Cisalpine productions from those of the mid-Adriatic area: while the latter reached the whole of northern Italy by means of the many waterways exiting in the Adriatic sea and most of the transalpine regions, but also Rome, Athens and Carthage, Cisalpine containers appear rarely outside the *regiones decima* and *octava*, testifying to a production of quality wine but destined for a narrow consumption area.

There are many aspects of the economic history of the western Adriatic coast that we can reconstruct by amphorae analysis, but on which it is not possible to dwell on this occasion. We would rather underline that a wide-ranging project, with rigorous methods, interdisciplinary and wide-ranging, such as the one from which this present volume stems, will certainly enrich our knowledge, opening new and interesting perspectives on the eastern Adriatic coast as well.

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