

Carla Ardis & Anna Riccato

THE LOCAL NETWORK. PRELIMINARY REMARKS ON DISTRIBUTION AND TRADE OF COARSE WARE IN NORTHERN ITALY

This research aims to reconstruct the pattern of distribution of coarse ware in Northern Italy in the Roman period and to identify preferential trade routes within the network of inland waterways and terrestrial roads.

A peculiar vessel has been selected as a case study; its distinctive feature is its prominent shoulder, sharply separated from the neck and usually simply decorated.

Through a comprehensive survey of the published literature, the present paper shows that these vessels were spread throughout the whole of Northern Italy. The River Po was the preferred route for the diffusion of these vases, whose trade flowed from west to east. Interestingly enough, the W-E direction of this trade network was reconstructed using materials from Aquileia, which is the arrival point.

The originality of the present work lies in its focus on coarse ware that testifies to regional exchanges, bringing to light the role Aquileia played in connecting the Regio X and the neighbouring areas.

Coarse Ware – Trade – Aquileia – Regio X – Northern Italy

1. Introduction

A number of recent studies have now demonstrated that coarse ware was traded along the complex network of inland waterways and terrestrial roads that crossed northern Italy during the Roman period¹.

Deeply rooted within this background, and within the authors' current research on materials from Aquileia and its territory, the present paper aims to investigate the trade of ancient Roman coarse ware, in order to define its nature and extent.

To this end, a peculiar vessel has been selected as a case study, mainly because its distinctive features are so evident that even the smallest fragments, sometimes not even the diagnostic ones, can be recognised as belonging to the same shape. Consequently, the bibliography for this form is quite extensive, resulting in the availability of a large set of data, which is a useful starting point for exploring broader topics.

(C.A., A.R.)

2. Vases with accentuated and decorated shoulder: an index fossil for the reconstruction of coarse ware distribution in Roman times

The vessel selected as a case study is a close vase, characterised by a medium/large flat base and a globular/ovoid body.

Its distinctive feature is the accentuated shoulder, which is sharply separated from the neck, in some cases by a groove. The shoulder usually bears a simple incised decoration, consisting mainly of a bundle of combed parallel lines that are either horizontal or, less frequently, wavy. Other decorations, sometimes made using different techniques, are quite rare. Rims could be flattened, rounded, or slightly thickened. On top of some rims, a groove could host and hold the lid (**fig. 1**)².

These vases have been unearthed in both settlements and necropolises, suggesting that they could have been used for a broad range of purposes.

The coarse fabric and heavy structure enabled them to resist thermal shocks and repeated exposure to fire with subsequent cooling, making them suitable for cooking; indeed, burn marks and/or sooty areas on both the external and internal surfaces, noted on a quite high number of samples, confirm that they were used over fire and/or among hot ashes. At the same time, the flat base and wide mouth make them useful for storing small quantities of food that need to be easily accessible; thus, it is possible that they were used for storage.

A number of samples, unearthed throughout the distribution area and beyond, bear, usually on the shoulder, some incised signs that in most cases are readable as numbers³.

¹ An early mention of the possibility that Roman coarse ware from present-day Friuli Venezia Giulia could have been traded can be found in Rupel 1994: 195-196. The steadily growing number of works dealing with this topic makes it impossible to provide a complete list here, but a recent overview of the most recent studies on the topic can be found in Ardis 2019: 96-105.

² Some finds seem to suggest that at least some variations in the rim morphology could be chronology-dependent. Specifically, the triangular-shape rims could be dated to the 3rd-4th centuries AD (Deodato 2017: 261-264; Preacco Ancona 2000: 113-115, var. A2).

³ The numeral XII is incised on the shoulder of two vases unearthed in Chiunsano and Ro Ferrarese (Corti 2018: 208, fig. 1.9) and on a cinerary urn from the necropolis of Biella (Preacco Ancona 2000: 115, fig. 117 a, b, c). The number does not seem to be related to the carrying capacity of the vase, since it appears on vessels of different sizes and dimensions. However, some vases with a reversed "S" incised at the same position were brought to light in the Biella necropolis; it has been argued that this sign stands for *semis*, the weight unit equivalent to half an ounce;

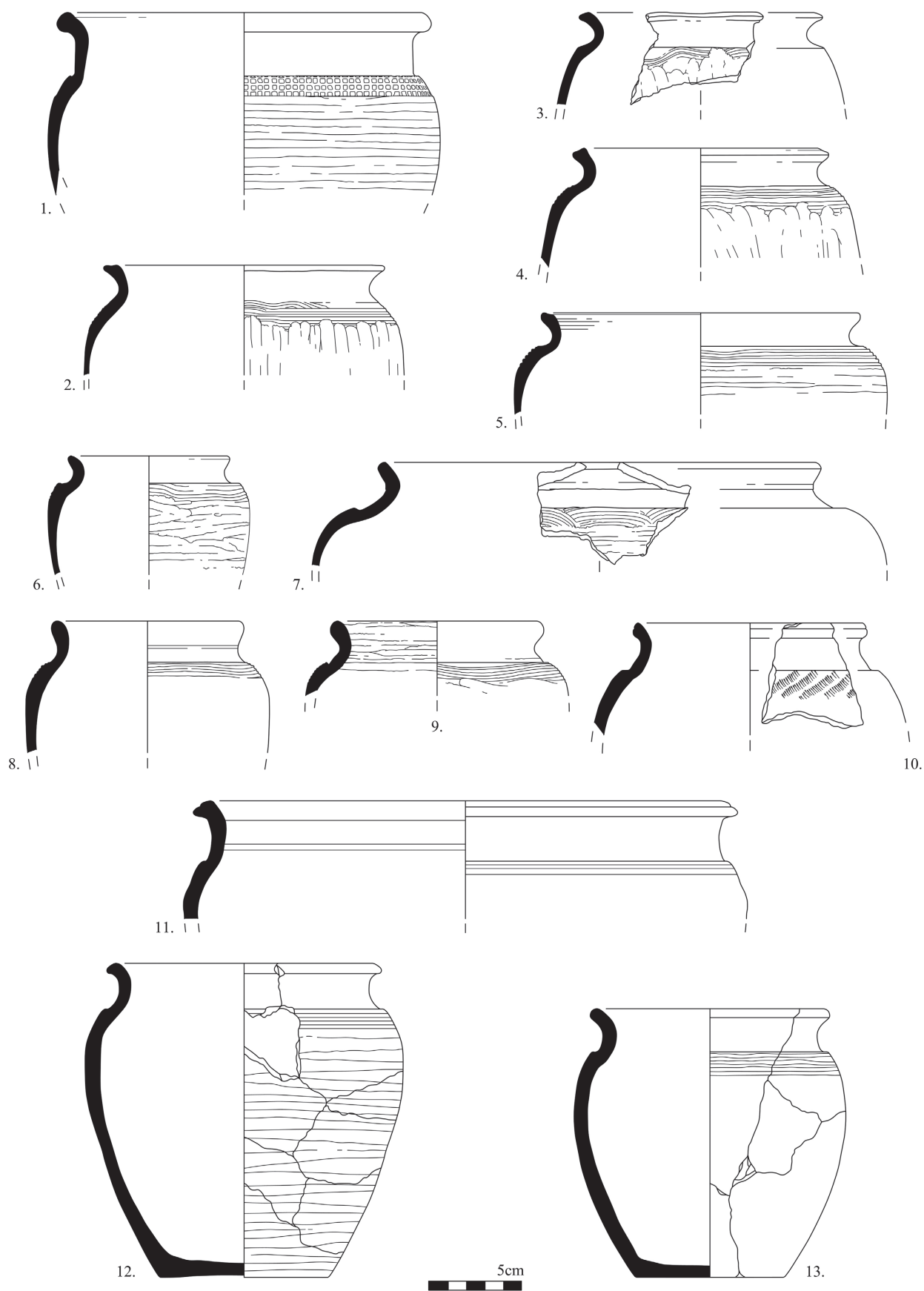


Fig. 1. Illustrative selection of vases with decorated shoulder from Aquileia (nn. 1-9), its *suburbium* (nn. 10-11) and the *Stella 1* site (nn. 12-13). Nr. 13 is a local imitation. (1-9 illustrated by Anna Riccato, 10-13 illustrated by Carla Ardis. Composition: Anna Riccato)

It is likely that these figures refer to the weight of either the content or the empty vessel, suggesting that they could have been used as transport containers for fixed quantities of perishable goods⁴.

These vessels are also well attested in necropolises and isolated graves. Most of the samples were used as cinerary urns, but they were also frequently offered as grave goods, especially the smallest vases; broken sherds scattered all around the graves have been interpreted as remains of funerary banquets, where these vessels were used for preparing, storing, and consuming food during funerary rituals (Preacco Ancona 2000: 112). So far, no production intended specifically for funerary purposes has been identified, and the presence of a broad range of usage marks on several samples from necropolises and graves hints to a re-use in funerary contexts of vases previously employed for everyday uses.

While the height is greater than the diameter for most of the samples, vases whose height is smaller than the diameter, resulting in a squat and flatten profile, seem to be quite common. Research is still ongoing, but it could be that the different proportions hint to different functions of these vases⁵.

Most of the publications that deal with pottery frequently provide only very concise fabric descriptions; nevertheless, vessels of this type seem to be attested in different fabric variants, ranging from finer, almost depurated samples, to vases made in a coarser fabric, characterised by more frequent, more varied, and bigger inclusions⁶.

While all the vessels seem to be either wheel-thrown or wheel-finished, most of the samples realised in the finer fabric underwent a finishing process, whereby the surface was smoothed with wooden sticks (so-called *lisciatura a stecca*), which left distinctive brushstroke marks on the external surface. The majority of the coarser vessels, on the

other hand, did not undergo finishing, smoothing, or any other surface treatments (though sometimes coarser vessels do bear signs of surface polishing).

Vases realised in different fabrics have frequently been found at the same site (within the *Regio X*, see the case of the *villa rustica* of Joannis, Strazzulla Rusconi 1979: 69), suggesting a complex and manifold manufacturing process.

The highest variability can be detected in north-western Italy, and it seems likely that vessels of this type were produced in different regional workshops located within the area of present-day Piedmont. Recent studies suggest that the main manufacturing district was located north of the River Po, between the mountains to the west and the Ticino River to the east (Deodato 2017: 269; Preacco Ancona 2000: 115, 119). To date, a single kiln has been identified near the modern town of Bellinzago Novarese (Poletti 2007), but the high frequency of the vessels in the region and the variety of the ceramic bodies point to the presence of other workshops in the area.

Vases whose technological and fabric characteristics suggest production at the foot of the Alps in north-western Italy have been found in different sites all around northern Italy (Corti 2016). Such finds suggest that these Alpine productions would have been traded over long distances, not just locally, and would have been shipped predominantly along the *via Postumia* or the River Po, as indicated by the locations of the find spots on the distribution map. The existence of a trade route running west-east that used to connect the whole of Northern Italy has already been convincingly demonstrated by looking at the distribution of a variety of goods (Corti 2018), and thus, it is likely that even this kind of coarse ware vessel circulated along the same itinerary.

That being said, the existence of workshops in other territories cannot be excluded, and some vases are likely to be local productions that preserved, without considerable morphological and dimensional variations, the characteristics of the Alpine model but were made using local raw materials and, sometimes, simpler production technologies, potentially even by migrating potters.

Regarding chronology, materials unearthed in stratigraphically excavated contexts suggest that this kind of vase remained in use for a very long period. The earliest samples appeared at the end of the 1st century BC (Guglielmetti, Lecca Bishop and Ragazzi 1991: 186), but the type reached its maximum spread in the 1st-2nd century AD (Giovannini et al. 1998: 306). While a few samples can still be found in layers dated to the 3rd-4th centuries AD, the number of attestations has generally decreased in these later centuries (and at least some materials are likely to be residual).

Samples found recently at settlements in north-western Italy confirm that this shape survived beyond the Imperial period, albeit with some changes in the proportions, dimensions and production technology (Deodato 2017: 261-264; Vaschetti 1996: 179-181). Small local workshops located in this region continued to produce this kind of vessel until at least the 5th-6th centuries AD; at that point, though, they were only meant to be traded at a sub-regional level (Deodato 2017: 269).

(C.A.)

in this latter case, the numeral sign should indicate the carrying capacity of the vase, since it is compatible with the recurrent measure of the vessels characterised by this reversed "S". Numerical signs are particularly frequent at Roman sites in Slovenia (See Plesničar-Gec 1972: tav. CXLI, t. 615, n. 12 for an example from the Emona necropolis).

⁴ A further hint in this direction is given by the vases of this type found in the underwater site *Stella I*, near Palazzolo dello Stella (Udine, Friuli Venezia Giulia. See Capulli 2020 for the most recent overview about the site). A modular relationship has been detected between the three different sizes attested here; a progression based on the multiplying factor 1.33 can be indeed observed moving from one size to the other, suggesting that these vessels could have been used to transport, and possibly trade, modular and constant quantities of a specific item (Ardis 2019: 153-155).

⁵ The wide opening and the short body make this variant more similar to an open bowl; this shape would have made the contents more accessible. A hint about the possible function of the flatter variant could come from a sample collected at the Roman villa of Desenzano del Garda, bearing the graffito *PANIS* on the shoulder. The graffito has been interpreted as a reference to the contents; i.e., yeast base or sourdough used to prepare bread (Portulano 2016: 389). At the time of writing, this remains the only example bearing an inscription that hints to the contents, so further investigation is needed to determine whether this is only an occasional use, or whether it reflects a more habitual custom.

⁶ It should be noted that a similar fabric variability also characterised another particular coarse ware shape: the so called *olle a orlo modanato*. Interestingly, these vases are also likely to have been produced in the territories of north-western Italy, at the foot of the Alps, from where they spread, following mainly the river Po and the *via Postumia*, to the whole of northern Italy, eventually promoting the initiation of several local workshops (a recent overview about this peculiar production can be found in Ardis, Mantovani, Schindler-Kaudelka 2019: 93-99).

3. Methodological criteria: from typology to the bigger picture

The present study originated in the authors' current research on coarse ware materials found in Aquileia and its *ager*, where this kind of vase is largely attested.

Assuming that the commercial flow went from west to east, as suggested by the identification of the production area in the region of present-day Piedmont, this research aimed to identify the real extent of the circulation of this specific form. The role of Aquileia in the trade network was also investigated, in order to understand whether the city was only an isolated *terminus*, or whether it played an active part in the distribution of the vases; as a result, it is possible to better define the commercial dynamics involving the colony and its surrounding rural territory.

Sites studied for comparison were selected by gradually increasing the range of territory analysed, according to territorial units. At the beginning, the focus was restricted to discoveries within the *ager* of Aquileia, identified as the territory bounded by the rivers Tagliamento to the west and Isonzo to the east, by the northern Adriatic seashores to the south, and whose northern borders coincide with the first hills⁷. The research area was then enlarged to the whole territory of *Regio X*⁸ and ultimately covered the whole of Northern Italy as well as beyond, with a special focus on sites located along the main consular roads (*via Annia*, *via Postumia*, *via Aemilia*) and along the river Po. A comprehensive survey of current literature enabled the creation of distribution maps that plot all the samples registered to date.

Despite the minor morphological differences mentioned above, for the purposes of the present work the authors have decided to consider all the finds sharing the main feature of the type, i.e., the prominent, decorated shoulder and sharp separation from the neck, as belonging to the same type.

From the very beginning, the authors had decided to only include published data in the study. The highly variable quality of unpublished records, and the fact that unpublished contexts are unevenly accessible, would have complicated the evaluation without adding sound results⁹. Attention was mainly focused on recently excavated contexts, which benefit from more standardized documentation and more detailed reports, though the authors are aware of the challenges deriving from the lack of autoptic inspections.

As the results presented here are based solely on published materials, they represent just the beginning of an

ongoing research project¹⁰, which will include petrographic, mineralogical, and chemical analysis of both pottery and raw materials. Nevertheless, the review of edited materials proved successful on multiple levels. It facilitated the gathering together of information previously scattered in countless reports, papers, bulletins, books, distributive charts, etc., enabling the authors to highlight relationships among vases often considered as isolated samples.

The comparative study provided a meaningful and telling picture of the distribution of this type of coarse ware in the whole of northern Italy during the Roman Empire, proving the necessity of enlarging the research framework when the aim is to detect more complex phenomena.

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4. Joining the dots: widespread distribution along a west-east commercial route

At first glance, the distribution map resulting from the bibliographic review shows that these vessels were spread in a wide area, encompassing more or less all of northern Italy, with few samples attested outside Italian borders (fig. 2). The Apennines seem to constitute the southern edge of the diffusion of the vessel type, while the *via Aemilia* and the *via Postumia*, as well as the River Po, likely functioned as preferred trading routes.

The vessels are particularly common in the ancient *Regio XI Transpadana*, especially in the area north of the River Po; i.e., present-day central eastern Piedmont and western Lombardia. This is not unexpected, since, as stated above, the main production centres of this kind of pottery ought to be located in precisely this area. Here the type is almost ubiquitous, and therefore it is nearly impossible to recognize a preferential distribution network. The vessel form is less attested in the territories of Piedmont located south of the Po, corresponding to the ancient *Regio IX Liguria*, where the local taste was different and other types of pottery were preferred (Garanzinia and Quercia 2016: 260-261, 267).

Further east, the records become slightly more rarefied, and a different distribution pattern, with a higher concentration along certain specific transport routes, can be observed. Some materials have been recovered at sites at the foot of the Alps, between the Como and Garda lakes and close to the so-called *via Gallica*, as well as along the road that connected Brescia and Cremona. Nevertheless, the main concentration of distribution can once again be detected along the *via Postumia* and the River Po (Corti 2018: 208; Gabucci 2019: 55-56). The latter seems to have been the preferred route for these goods: it seems noteworthy that, after Calvatone/*Bedriacum*, the flow deviates slightly towards the southeast, leaving the route of the *Postumia* and instead following the main branches of the river to its mouth.

Finds along the *via Aemilia* prove that this road was an important part of the trade network as well.

⁷ The northern border of Aquileia's *ager* is still debated by scholars (Strazzulla Rusconi and Zaccaria 1984: 115, and the bibliography contained therein).

⁸ While the authors are aware that the extension of the regional territory is still under discussion, and that the regional borders changed through time, for the purposes of the present study it has been considered as belonging to the *Regio X* a territory corresponding to nowadays Lombardia, Veneto, Trentino Alto Adige, Friuli Venezia Giulia and part of Istria and Western Slovenia, till the border of the territory of *Emona*/Ljubljana.

⁹ Gaining access to unpublished materials preserved in the storerooms of museums and superintendencies was even more difficult at the time the present research started: due to the Covid-19 pandemic, most of these public spaces remained inaccessible for months (and some restrictions that make autoptic inspection even more challenging are still in places at the time of writing).

¹⁰ The research is still ongoing, and the authors are currently working on an extended version of the current paper, which should be published in the near future, and which will also explore the link between the distribution and function of this type of vessel.

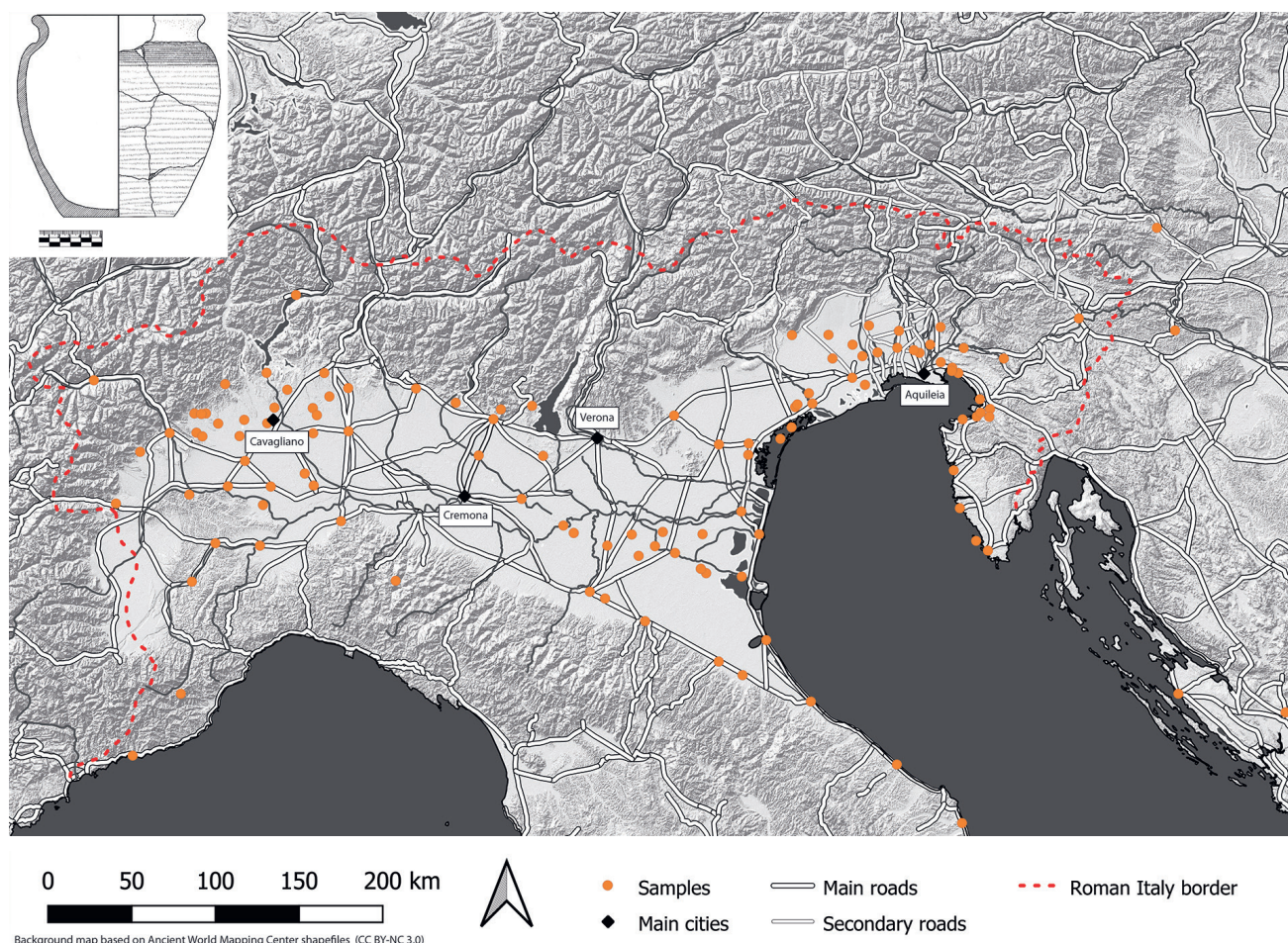


Fig. 2. Roman coarse ware vases with decorated shoulder: distribution in Northern Italy (and beyond).
(Composition: Carla Ardis)

Once they reached the coast or its vicinity, some vases continued their journey towards the south, along the western shores of the Adriatic, at least as far as present-day Porto Recanati. Many others proceeded in the opposite direction; i.e., up to *Caput Adriae*, towards Aquileia. It is difficult to establish the path(s) followed in this case. The high number of sherds recovered in the coastal zone of Veneto suggests a preeminent role for the *viae Annia* and *Popilia*. It is likely, however, that some coastal and lagoon routes were also used, whose development during the early and mid-Imperial Period is still far from being completely understood (for a recent reconstruction of the road system in the area, see Madricardo et al. 2021).

Compared to Veneto, whose market does not seem to have been very receptive to the pottery under consideration here¹¹, a significant number of samples have been found in present-day Friuli Venezia Giulia. The wealth of evidence is partly due to

the systematic studies and census activities carried out on finds from the area, which led to the (albeit synthetic) edition of a considerable amount of Roman ceramic (a summary may be found in Cividini 2019). However, the success of this vessel type in the region remains unquestionable. Its distribution is widespread and homogeneous in all sectors of the middle and lower plain, thanks to a complex local exchange system that connected the main consular routes (in particular *viae Annia* and *Postumia*) with minor roads and waterways. The presence of Aquileia itself must have been decisive. A relatively high number of pots with decorated shoulders were found within the Roman colony¹². The city was probably an important consumption centre for these products and/or for their content; at the same time, as documented for other types of goods, it likely acted as a hub for their redistribution towards the hinterland and the eastern Adriatic coast, as attested by samples

¹¹ This fact could be due to gaps in documentation, but several clues suggest that the material culture of present-day Veneto was different from that of the neighbouring territories, at least as far as sites located further inland in the region are concerned. A recent search carried out in some museums' deposits of the province of Verona did not find any examples of the pots under consideration here. The authors would like to thank Dr. D. Dobrev (DCuCi, University of Verona) for the information about Verona, collected as part of the "Food and Wine Project. Il cibo e il vino nel territorio Veronese nell'antichità".

¹² This type alone accounts for 5% of the total number of *ollae* recovered from the former Cossar property, 14% in the area of the Roman theatre, and as much as 26% at Canale Anfora (Cividini 2017). Note that the percentages are calculated from the total MNI, and thus include shards belonging to different periods: they would be even higher were one to consider only the specimens dating back to the early and mid-Imperial Period. Vases with decorated shoulders are also the most common type of ceramic urn in the suburban cemeteries of the 1st and 2nd centuries AD (Giovannini et al. 1997, 1998).

found in Istria and, less frequently, in Dalmatia. On the other hand, it seems that the vessels were not sold north of the Alps, in contrast to what has been documented for other ceramic classes redistributed by Aquileia (e.g., *terra sigillata*). It is possible that the pots or their contents were not in demand in this area because they were not economically advantageous, or because local productions could already satisfy the needs of the market.

Evidence from present-day Slovenia is more complex to evaluate. Vessels similar to those in this study have been found at several sites along the road to *Emona*/Ljubljana. However, when compared to the specimens excavated further west, the morphological features of these pots suggest that they could be local imitations, or even completely autonomous elaborations with a similar final appearance. On the other hand, the possible existence of workshops in the easternmost part of the *Regio X* is suggested by the data from the Neblo kilns (Vidrih Perko and Župančič 2011: 158-159) and from the *Stella 1* shipwreck, where some vases with a coarse fabric similar to the typical local one have been found.

(A.R.)

5. Concluding remarks

The high number of vases with decorated shoulders distributed all around northern Italy proves that they were involved in a complex system of trade that linked the western and eastern sides of Northern Italy, exploiting both terrestrial routes and waterways. A wide variety of goods were traded in both directions along this commercial route, not only coarse ware: oil, wine, fish sauces produced in the Adriatic region and in the east, along with fine tableware, were shipped from the Adriatic coast towards inland territories; the same route was also used by building and decorative stones (Gabucci 2017; Spagnolo Garzoli et al. 2008). It is more difficult to determine what kinds of goods were dispatched from the area at the western foot of the Alps. Considering the nature of this territory, while some refined productions, such as Samian ware, occasionally completed the cargoes, it is highly likely that the majority of traded goods were the products of local agriculture and the exploitation of the surrounding mountains and forest (Gabucci 2017; 2019). They are mostly perishable materials, hardly preserved in the archaeological record, whose correct identification is therefore extremely difficult.

Within this system of trade, coarse ware played a role that, while important, is still difficult to determine exactly, due to the lack of quantitative data on the number of vessels traded and clear information about their possible content(s).

As already suggested for the *olle a orlo modanato* (Gabucci 2017), which shared the same production and distribution areas with the pottery analysed here, it could be argued that even the vases with decorated shoulders were used to preserve, trade and distribute cheese, dry-canned meat, or other by-products of Alpine pasture and transhumance. At the time of writing, however, there is no conclusive evidence that these containers were used for these products, and only the progression of research, with the essential aid of archaeometric analysis, could shed light on the matter.

Despite their wide distribution, vases with decorated shoulders were only traded for a short period of time: the majority of samples are dated to between the 1st and 2nd centuries AD, with the number of attestations from the following centuries decreasing steadily. This gradual, though clear, market contraction could be attributed to a general reorganization of production that, from the 3rd century AD, focused more on the needs of internal markets than on long-distance trade (Deodato 2017: 260-261, 269). This phenomenon mirrors a broader process of regionalisation of the whole economy, detectable in the Cisalpina and in the whole of Italy, that should be linked, especially in the case of the northern region, to the political and military turmoil of the period (namely, the invasions of Quadi and Marcomanni and the plague that followed; a recent discussion on the topic is in Gabucci 2017). During this unstable period, long- and medium-distance trade declined, which is clearly testified by the fact that amphorae produced on the Adriatic seashore were no longer shipped to the north-western territories; the end of coarse ware trade towards the east mirrors the same phenomenon.

The production and distribution of coarse ware vases with decorated shoulders should thus be considered within more complex historic and commercial dynamics, traditionally investigated through other kinds of pottery. These vessels can shed light on some aspects of the production and trade organisation that, while less evident at the macroscopic level, are nevertheless essential for a more complete understanding of the economic system of northern Italy in the Roman Imperial Period. This proved to be particularly true when analysing the distribution of this vessel type in the Aquileia territory.

As evident in the distribution map, vases with decorated shoulders are extremely frequent in this area. Most of the samples found in Aquileia differ completely from the local pottery and appear to be imports from north-western Italy: their shape, decorations, technical features and fabrics are indeed very similar to the Piedmont productions. Only a negligible amount of the findings from the Roman colony are likely to be local imitations¹³. Samples from the territory present, instead, a completely different scenario; even though it was impossible to perform autoptic exams on all the finds, fabric descriptions suggest that vases produced *in loco*, following the example of models imported from the west, were far more frequent in the Aquileia *ager*, probably as a cheaper alternative to imports. The coarse ware from the *Stella 1* site, which comprehends a relatively high number of local/regional productions, is telling proof of this.

This suggests that the supply chain serving the city was different from the one catering to the surrounding territories. Aquileia, as one would expect given the city's central role in the economy of the northern Adriatic Sea, fulfilled its market needs mainly with imported goods, often redistributed to other commercial hubs. The surrounding settlements not only bought the goods sold by the Adriatic *emporium*, but they were also able to stock up independently. Compared

¹³ This has been observed for a large amount of sherds found within Aquileia, during the excavation by Università di Padova, and its *suburbium*, collected during the survey promoted by Macquarie University and Università di Venezia. Descriptions of published material found in the city seem to suggest very similar fabric (and thus provenance).

to the Roman colony, the surrounding communities mostly used local productions. However, the adoption of foreign models proves that these territories, far from being isolated, were perfectly inserted in the economic and cultural networks that crossed northern Italy. They could partake in the long-distance trade heading to the most important cities but, at the same time, they also developed autonomous means and methods of trade. These local routes, despite involving fewer goods, enabled an endemic distribution of the same kind of products even in the most remote outposts. Secondary routes played an essential role in this scenario: small local docks along the rivers or in the lagoon, local waterways and minor terrestrial roads, closely interconnected, enabled frequent exchanges and the possibility of “breaking” and reshaping the cargoes’ composition.

Looking at the wide distribution of this particular type of coarse ware sheds light on the intense and lively economic dynamism of the *ager aquileiensis* that, though traditionally considered peripheral and only tributary to Aquileia, actually played an autonomous and fundamental role in a variety of commercial transactions. Other pottery classes seem to point in the same direction: a recent review of the stamps on Italic *terra sigillata* shows that, while Aquileia holds the highest number of samples, the producers attested in the territory are more than the ones found in the city (Mantovani and Ardis 2021).

The present study thus demonstrates that even coarse ware, when its analysis goes beyond the mere typological classification and takes into account evidence provided by other kinds of archaeological materials, proves effective

in providing a better understanding of complex aspects of ancient Roman economic history. Data retrieved from coarse ware could better explain large scale phenomena, which is usually analysed using other materials that are considered more diagnostic, such as transport containers or fine tableware. At the same time, the results of the present study suggest that coarse ware should be used as a privileged index fossil when the aim of the research is to reconstruct the economic systems of peripheral territories, at the fringe of bigger economic hubs, in greater detail, which is less detectable when looking at goods with a greater circulation. Coarse ware thus contributes to a greater understanding of commercial dynamics that, though minor, are nonetheless essential for a complete reconstruction of the complexity of the Roman world. (C.A., A.R.)

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Carla Ardis

Department of Research and Engagement,
Museum of London Archaeology (MOLA), Northampton, UK
carla.ardis@alumni.imtlucca.it

Anna Riccato

Direzione Regionale Musei Veneto,
Ministero della Cultura, IT
anna.riccato@gmail.com

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