REI CRETARIÆ ROMANÆ FAVTORVM ACTA 46, 2020 ISSN: 0484-3401 ISBN: 978-1-78969-748-3
doi: http://dx.doi.org/10.32028/9781789697483-4

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# LATE ROMAN COOKING WARES IN THE AREA OF *BARCINO* AND *ILURO*: FROM AFRICAN IMPORTS TO LOCAL PRODUCTION

*Late Roman cooking and coarse wares in the North-West Mediterranean are the continuity and evolution of Roman imperial pottery. This study focuses on the area of* Barcino *and* Iluro *and the neighbouring regions of the latter. There can be seen evidence of the predominance of African imports that lasted from the 4th to the 6th century. From the turn of the 6th century, there was a noticeable change in that tendency owing to the progressive decrease in imports and an increase in local productions since the second half of the 7th century when imported wares were only residual. These local wares were significantly different than Roman pottery in terms of their coarser pastes, techniques, and shapes, developing a style of their own. The archaeometrical analysis of Late Roman cooking wares from rural sites of the area, confirms this autochthonous production.*

Late Roman – cooking ware – archaeometry – West Mediterranean – provenance

## 1. Introduction

The study of cooking wares has increased during the last decades. They allow us to understand aspects of daily life, such as food preparation, diet, consumption, as well as the pottery industry and trading.

In this paper, a study of Late Roman cooking wares of the North-West Mediterranean is presented, and more specifically, from the area of present-day Catalonia (**fig. 1**). There is a predominance of African imports from the 4th to 6th centuries, but these imports reduce progressively with time. From the 6th century onwards, regional and local productions seemed to be dominant and substituted the imports from previous centuries.

This study focuses on those autochthonous productions of rural sites of the *Barcino* area, which includes the *ager* (farmlands) of *Barcino* and *Iluro*—two coastal cities. The archaeometrical analysis seems to confirm this local and regional production of cooking wares of the selected area that would confirm this changing tendency during Late Antiquity.

## 2. Late Roman cooking wares during a changing era

The 4th century brought many changes—including in pottery—that can be seen in the archaeological record. These changes are especially visible in rural sites where *villae* were progressively reducing their habitable spaces to allow more investment in production and storage areas (Chavarría Arnau 2007; Roig Buxó 2011, 2009).

The 6th century was supposedly a point of inflection in this changing process. The population seemed to have moved out of the cities and settled in the countryside while the cities remained principally as administrative centers (Ripoll López 2000). Also visible is a new settlement system consisting of the abandonment of Roman *villae* owing to the reuse of their productive area while dwelling areas were totally abandoned. Besides, there were also new settlements, a small *vicus* that comprised a simple dwelling system based on the erection of huts, a larger production and storage area, and, most of the time, a necropolis related to each *vicus* (Roig Buxó 2009; Tejerizo García 2012). This system reflects a society that was based on an agricultural economy with a processing and production for self-consumption (Cau Ontiveros 1999; Coll Riera and Roig Buxó 2005; Roig Buxó and Coll Riera 2006). This economy might have been complemented with some industrial activity, such as pottery production in a household industry system (Tite 1999).

As regards pottery, certain shapes and techniques continued the Roman pottery tradition from the 4th to the 6th centuries. Then, from the 6th century, ceramics started to present remarkable differences not seen before in Roman potteries, taking on an autochthonous characteristic and style. Thus, remarkable differences from the 4th to the 6th century and from the 6th to the 8th century are evident.

Between the 4th and 6th centuries, Late Roman cooking wares were mainly imported from North Africa and distributed from there by means of a long-distance trade along the entire West-Mediterranean coast (Blázquez Martínez 2002; Járrega Domínguez 2013). There can also be found some utensils from the East and Central Mediterranean, although their presence is less noticeable than that of African imports. These pieces arrived at the port cities from where they were distributed along the territory, including *villae* and rural sites. During those centuries, local production tended to imitate Roman and African pottery in terms of shapes and techniques (Ikäheimo 2005). Although these kinds of African cooking wares are found in all settlements of our selected area, it is noticeable that the volume of imports reduced owing to

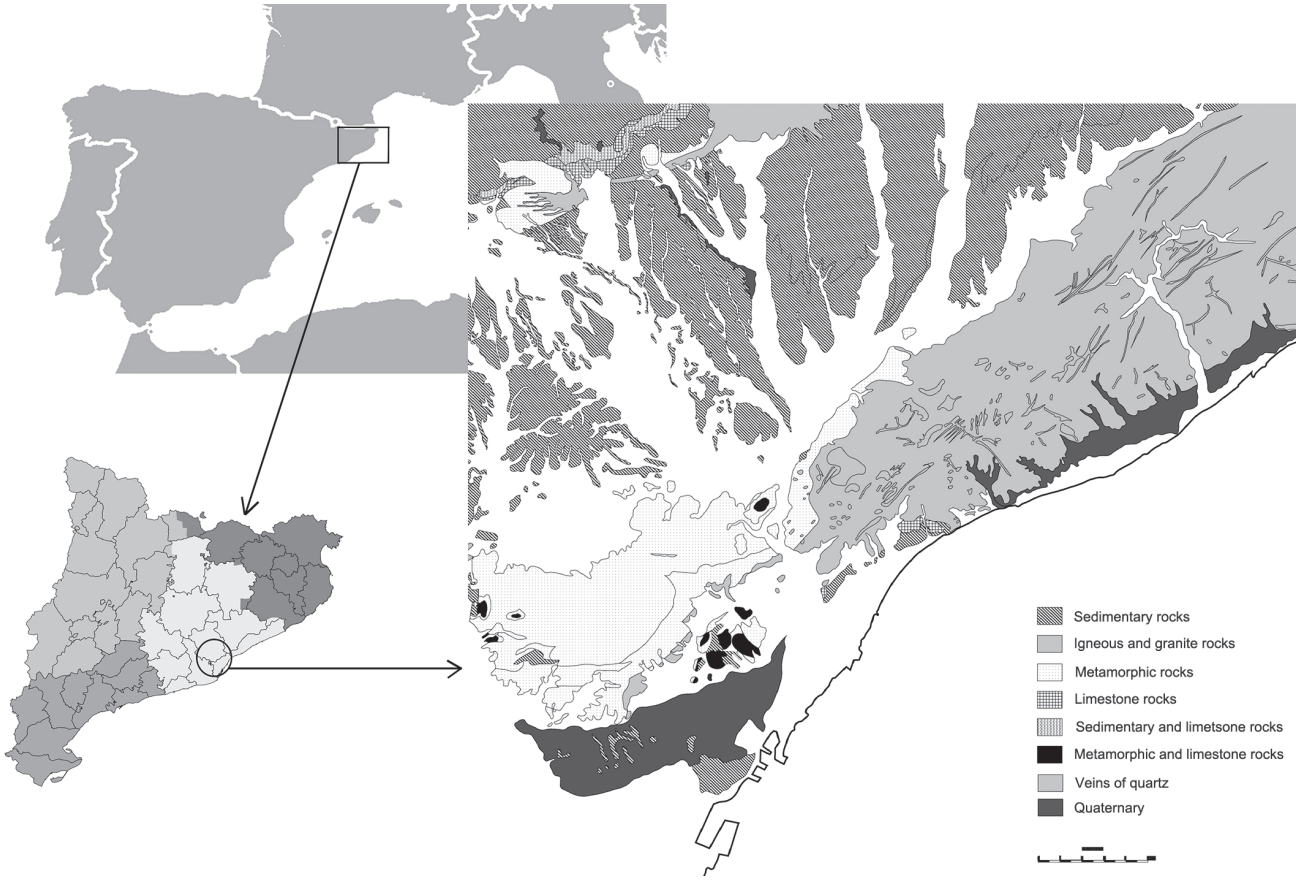


**Fig. 1.** Map of the studied area with geological layers.

the fact that the site (especially the rural ones) was situated inland, that is, far away from coastal cities.

The main types of North-African cooking wares are casseroles and lids (representative examples in **fig. 2**), as well as complementary utensils, such as bowls, mortars, or jars, for preparing food but not specifically for cooking. Some examples of common types are the casseroles Hayes 23A, Hayes 23B, Hayes 181, Hayes 197, Ostia-III-267, and Ostia-III-324; and lids Ostia-I-261, Ostia-I-262, Ostia-III-332, Ostia-I-264, Hayes 196, and Ostia-IV-59.

This kind of pottery has a fine and compact paste and is well refined with only a few and small equant and rounded quartz inclusions (**fig. 2**). African pottery, on the other hand, is a wheel made with thin walls and is carefully finished. They usually have an orange or beige color due to the oxidizing firing atmosphere, as grayish reducing firing is less frequent. Their surfaces are usually treated to a smooth polish or slip. Besides, casseroles and lids have a grey patina on the external surface of the rim that is particularly common with these Late Roman-African cooking wares.

On the other hand, cooking pots were rarely imported. These pots tended to be locally produced with a specific S shape due to their globular body and everted rim (**fig. 3**). The VLR.5.40 shape can be identified among these S-shaped pots, usually with two handles and appears for the first time in the excavations of Vila Roma, in Tarraco (Tarragona) (Macías Solé 1999; TED'A 1989).

From the 6th century, the importation of cooking wares seemed to have started a decline that became more noticeable from the 7th century when they almost disappeared (**fig. 4**). Importation of these wares remained only in coastal cities and their immediate proximities but was discontinued in rural and inland sites, and hence the disappearance of these types of pottery from the latter sites.

These imported wares were progressively substituted by pottery that was locally or regionally produced and made with coarser pastes and techniques that slowly differed from those of the Roman tradition. Pottery production was different depending on the needs of each settlement. In this sense, cities kept up the Roman tradition in their urban workshops that produced enough pottery for distribution throughout the region. Additionally, rural sites were organized in a self-sufficient system that also applied to pottery use. The lack of kilns in the countryside leads us to think about communal kilns that would have been shared by several *vici* of the rural sites, such as Can Roqueta (Terrats Jiménez 2009, 2006) and Els Mallols (Francès Farré 2007).

These local and regional wares are characterized by a coarse fraction, with a low refined and high porous clay paste (**fig. 5**). Some macroscopic inclusions are observable on fresh fractions or even on some surfaces, such as silky white, white transparent, opaque, or platy bright, that could be associated with minerals, such as quartz or micas (Cau Ontiveros, Macías Solé and Tuset Bertrán 1997).

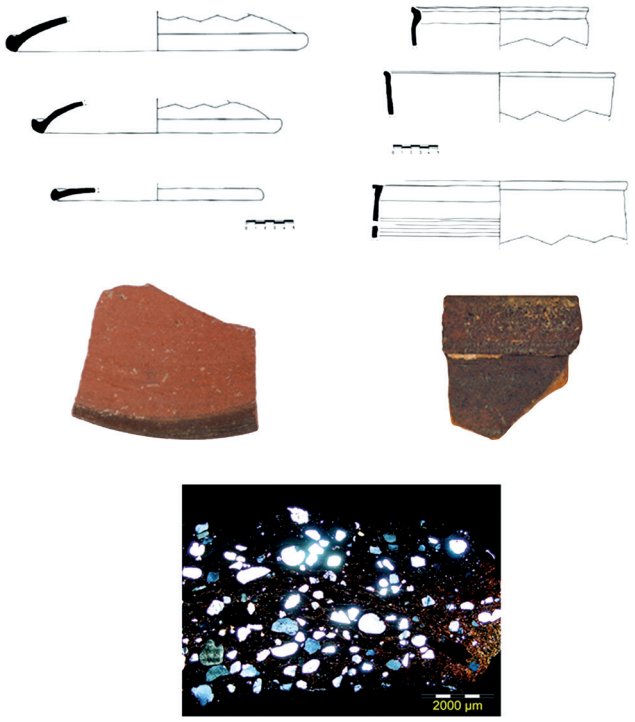


**Fig. 2.** Representative illustrations of African cooking ware, lids, and casseroles, including a detail of a representative thin section and a photomicrograph taken in crossed polars (XP).

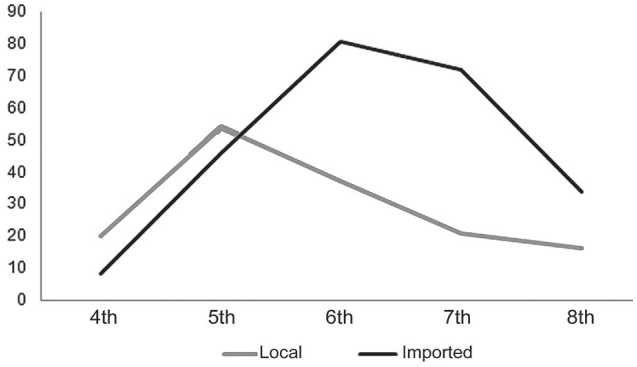


**Fig. 4.** Evolution of African imports and local or regional production of cooking wares during Late Antiquity in the studied area. Ponderation by using qualitative binary data from contexts from the fourth to the early eighth centuries from 80 rural and urban settlements from *Barcino*, *Tarraco*, *Iluro*, Empúries and their surrounding *agers* (farmlands).


**Fig. 3.** Representative illustrations of local or regional cooking pots, with a representative detail of macroscopic fresh fracture where the coarse fraction is visible.

The technique was simpler than that found in African wares. Although there are wheel-made pieces, there is evidence of a noticeable return to slow-wheel and handmade pottery to the extent that, in some cases, some visible fingerprints on surfaces have been preserved (Moro García 1997). Surface treatments were very rare, with only some external smoothing or inside slip. The decoration is also even rarer with only very little grooving. Conversely, there was a tendency for 6th- and 7th-century cooking pots to have external decoration consisting of series of parallel lines.

One of the main characteristics is their black or dark color as a consequence of reducing the temperature of the firing and post-firing atmosphere. Oxidizing of cooking wares is also present but to a lesser degree. However, it is also common for pieces to bear a combination of colors or color-gradients, which would indicate an irregular firing atmosphere and a lack of control of firing temperatures.

Cooking pots are predominant and present in all settlements. They are globular, with a variety of rims, all of which are particularly simple. These pieces do not have the inside

fit for the lid, unlike in African wares, as their S profile and shapes made that unnecessary. However, from the sixth century onward, casseroles became less common than cooking pots did.

### 3. An overview of selected wares

This study focused on cooking wares from Late Roman rural sites of Vallès, the farmlands of *Barcino*, such as Can Gambús, Horts de Can Torras and Ca l'Estrada, and Maresme area, the farmlands of *Iluro*, with Torre Llauder and Can Modolell (Riutort Riera 2018).

The pottery found was usually tableware imported from North Africa, with ARS C and ARS D or South Gaulish, with D.S.P (*Dérivées des sigillées paléochrétiennes*). There were also African and East Mediterranean amphora, Late Roman coarse wares, Late Roman cooking wares and big storage pots (Roig Buxó and Coll Riera 2012). In all cases, there was a larger variety of pottery and shapes, including

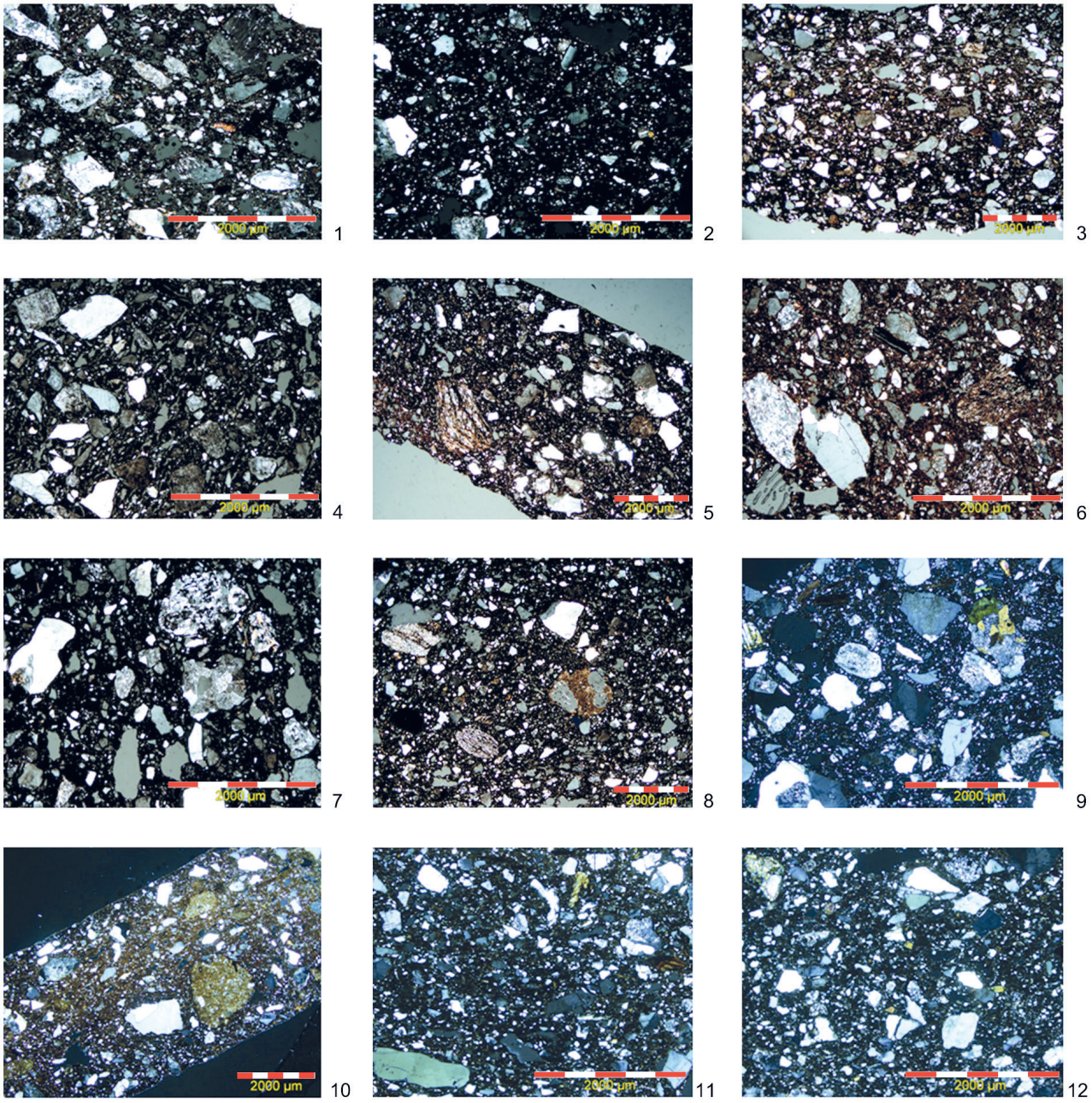


**Fig. 5.** Microphotography of thin section samples in XPL (cross-polarized light). 1-4 belong to the granitic group from Vallès: 1-HCT10 (cooking pot), 2-CG1021 (cooking pot), 3-PMCV04 (casserole), 5-PMCV33 (casserole); 5-8 correspond to the granitic group with a metamorphic contribution: 5-PMCV31 (cooking pot), 6-PMCV39 (cooking pot), 7-PMCV08 (cooking pot), 8-PMCV11 (casserole); 9-12 belong to the granodioritic group from Maresme (cooking pots): 9-TLL03, 10-MDL24, 11-TLL43, 12-MDL32.

a large number of imports between the 4th and 6th centuries. From the mid-6th century, the importation of these cooking wares went on the decline. So did tablewares and amphorae that remained only in coastal and urban settlements. In this sense, imports can be found in *Iluro* (Cela Espín and Revilla Calvo 2005) and *Barcino* (Járrega Domínguez 2005) while these imports are especially rare in Vallès sites.

With respect to cooking wares, less variety in shapes is found except for cooking pots and some casseroles that were found with a diversity of dimensions. These wares were of a simple design, mainly dark-colored and with coarse pastes. From the second half of the 7th century, the typological variety was reduced more substantially to the point of being limited to cooking pots with an S profile.

## 4. Archaeometric approach

Cooking wares that increased in the second period are assumed to be locally or regionally produced. Their archaeometric characterization reveals a granitic composition that is present in all pieces. However, they may be grouped as follows (Riutort Riera 2018):

– *Granitic from Vallès* (**fig. 5, 1-4**). This group includes cooking pots and casseroles. The main features are their granitic composition with inclusions of quartz, alkali feldspar (K-feldspar), plagioclase that usually appears altered to sericite, biotite, and granitic rock fragments. These granitic fragments can be seen with micro-textures, such as myrmequitic, micropertitic, or micrographic textures. Together with this granitic composition, there is also sedimentary contribution that is mainly composed of saturated or complete sandstone or siliceous mudstone.

There is a variety of accessory minerals, but chlorite, clinopyroxene, and epidote are the commonest. Also, some hornblende and muscovite can be observed.

The matrix is coarse, non-calcareous, bimodal, and optically inactive. Plane polarized light (PPL) reveals a grey-black color or a combination or black and gray to brown due to an irregular firing atmosphere. The coarse fraction is dominant in most cases, with large inclusions of up to 0.20 mm than those of granitic rock fragments. Also, some quartz and biotite may even attain a dimension of up to 2.5 mm. Fine fraction is between common and few, following the descriptions proposed by Quinn (2013) and Whitbread (1989, 1995).

– *Granitic with the metamorphic contribution* (**fig. 5, 5-8**). Here, cooking pots and casseroles can also be found. Their fabrics have inclusions of quartz, K-feldspar, plagioclase also altered to sericite, biotite, and granitic rock fragments.

Together with this granitic composition, the metamorphic contribution can be found with phyllite, some schist based on biotite and inclusions of polymetamorphism made of quartz, muscovite, K-feldspar, and epidote. Besides, sedimentary inclusions can be observed with complete and saturated quartz sandstones and siliceous mudstones. Hornblende, epidote, clinopyroxene, and some calcareous inclusions, such as micrite, can be observed as accessory inclusions.

The matrix is coarse, non-calcareous, bimodal, and optically inactive or with very low activity. Their color is heterogeneous with reducing pieces in grey-black and others in brown due to oxidation and also mixed colors. Coarse fraction is dominant in most cases, with large inclusions of up to 0.20 mm. The largest inclusions are granitic rock fragments and metamorphic fragments that can reach up to 3 mm. Fine fraction is between common and few.

– *Granitic from Maresme* (**fig. 5, 9-12**). This group is especially similar to the granitic group from Vallès. These cooking wares are composed of granodiorite clays; thus, their main inclusions are quarts, K-feldspar, plagioclase, and its alteration to sericite and granitic rock fragments. Besides, almost all pieces of these ceramics include amphiboles that can be found in different amounts, either in the main composition or as accessory minerals. These amphiboles are hornblende but smaller amounts of green actinolite can also be found. Sedimentary contribution is present and is much more visible than in Vallès pieces. There are saturated quartz sandstones, arkose, and mudstones with a siliceous or carbonated matrix.

All samples present clinopyroxene as accessory inclusions. There are also epidote and zircon, but chlorite, muscovite, and chert are scarcely found.

The matrix is coarse, non-calcareous, bimodal and with low optical activity. Their color in PPL is diverse, with gray-black or mixing black and brown. Coarse fraction is dominant, with inclusions up to 0.2 that can reach up to 1.5 mm in quartz, K-feldspars, biotite, and granitic rock fragments, as well as in sedimentary inclusions.

## 5. Concluding remarks

This archaeometric characterization of cooking wares reveals a self-sufficient production in *vici* and rural sites of the studied area where each settlement would produce only for their necessities, with very rare surpluses. Each defined group coincides with the geology and geochemistry of the local area where there were settlements, thus confirming this autochthonous provenance. Besides, there was some regional diffusion of these wares in short-distance trade as some pottery from Maresme has been found in Vallès sites and vice versa. This dynamic matches the household industry system that operated on the short-distance trade of pottery surplus.

At the same time, the long-distance cooking-ware trade was progressively substituted for local and regional wares from the sixth century that almost disappeared by the seventh century.

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