
COOKING POTS AND LARGE CONTAINERS IN THE EARLY MEDIEVAL VEGA OF GRANADA (SOUTH EAST SPAIN). ON THE PRACTICES OF POTTERY PRODUCTION AND THE PRACTICES THAT REQUIRE PRODUCTION OF POTTERY

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This paper presents a contrasting picture between two pottery products in the Late Antique and Early Medieval Vega of Granada (South East Spain) between the 6th and the 12th century AD. This is a critical historical period in the development of this area, as it covers the process of Islamicisation. With this insight on pottery production I aim to offer a perspective on the complexity of this process as reflected in technological developments. At the same time, I propose an example of how the combination of archaeological and historical evidence, anthropological theory and scientific techniques (in this case, petrography) can produce useful studies that increase our understanding not only of the technological background of a historical period, but also of its whole societal development.

Archaeological background and aims of the study

The Vega of Granada is a region of South East

Spain that underwent a process of Islamicisation between the 8th and the 11th centuries AD (Figure 1). The area has been studied from an archaeological and historical point of view (Carvajal 2008; 2009) and more recently its pottery has been the subject of study of ARANPOT, an European funded Marie Curie Action. As a direct result of ARANPOT, a paper on the production and distribution of cooking pots between the 6th and the 12th century AD is now in press (Carvajal and Day in press) and several others on different pottery products are in preparation.



Figure 1. Map of Iberia showing the location of the Vega of Granada and of the town of Granada.

The previous archaeological analysis on the Vega produced a sequence of four phases of development after 711 AD. Phase I (from the 8th to early 9th centuries) marks the introduction of the first Islamic techniques in a background still dominated by Late Antique pottery traditions. Phase II (early 9th to early 10th centuries) shows how the techniques coming from diverse traditions are rearranged and produce a new, heterogeneous context of production. In Phase III (early 10th to early 11th centuries) there is a strong standardisation of techniques, which has to be related to a concentration of population in the capital of the Vega, Ilbirah. Finally, in Phase IV (early 11th and 12th centuries) the standardisation is reaffirmed and there is the concentration of the processes of pottery production in the new capital of the area, Granada (Carvajal 2008, 2009). For the purposes of this paper, however, it is practical to simplify the sequence according to the results made in the previous study of cooking pots, which expanded the chronological frame to the 6th and 7th centuries as

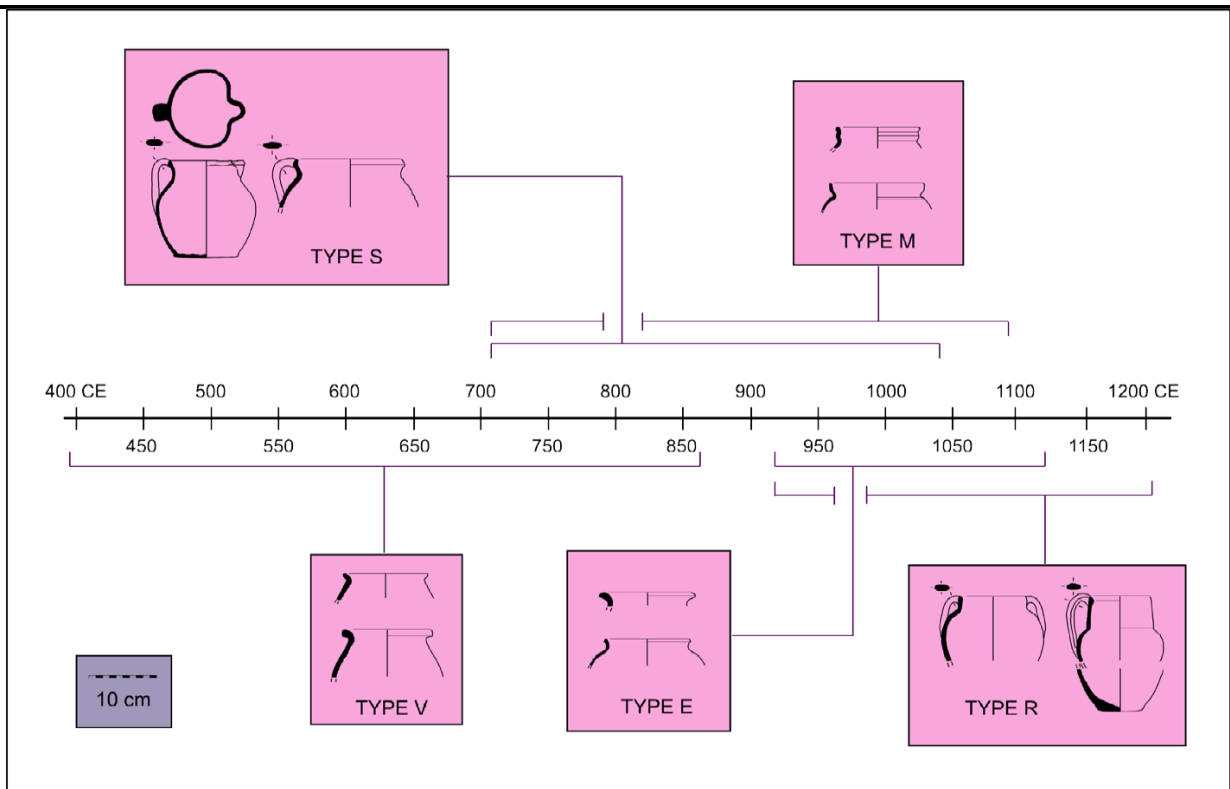


Figure 2. Development of the cooking pots in the Vega of Granada in the period under study.

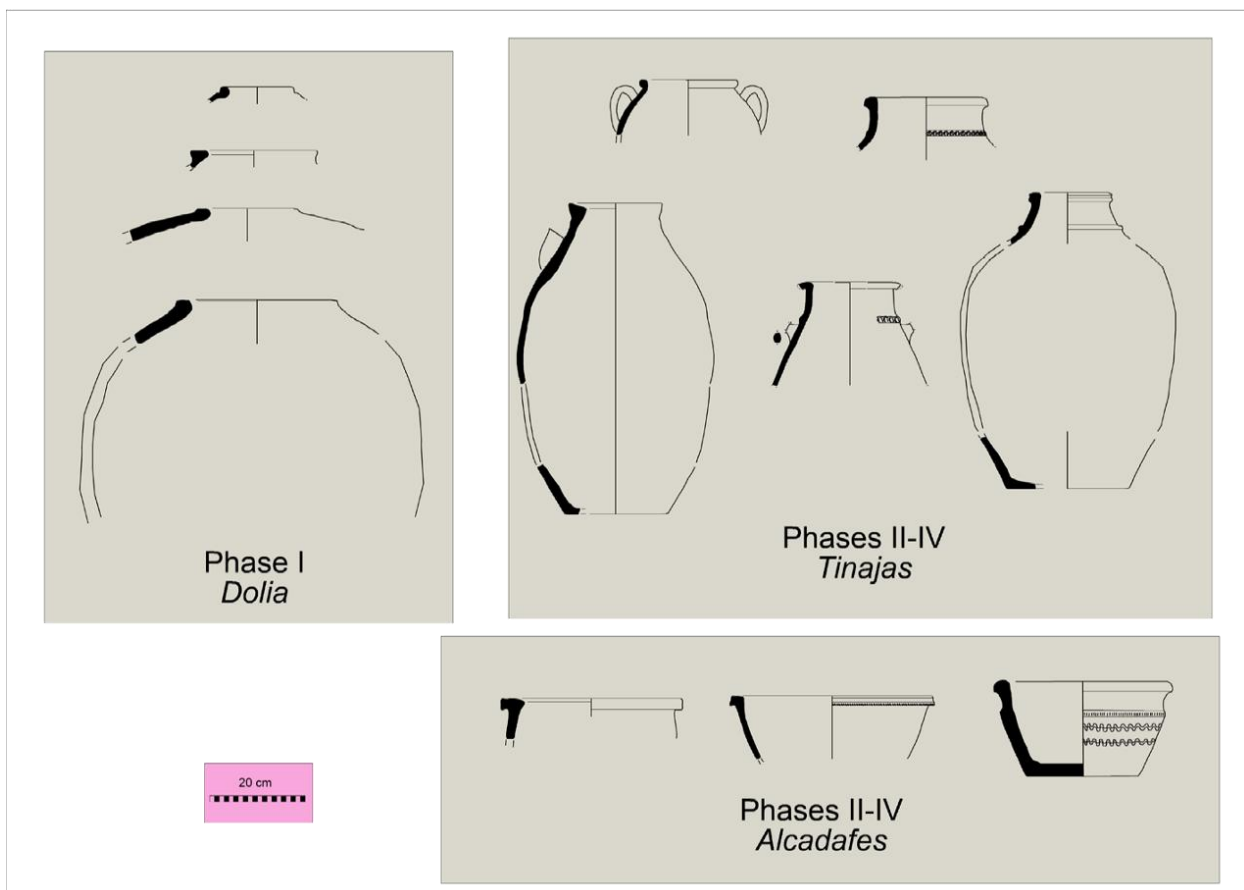


Figure 3. Development of dolia, tinajas and alcadafes in the Vega of Granada in the period under study.

well (Carvajal and Day in press). Therefore I will refer to two different contexts of pottery production between the 6th and the 12th century. In the first context (6th to early 10th century AD), cooking pots were manufactured in domestic or individual workshops (Peacock 1982: 17-38; cf van der Leeuw 1976: 392-395) that had a small area of distribution and that were located close to or inside most of the documented sites in the Vega of Granada. In the second context of production (mid-10th to 12th century AD), the cooking pots were made in workshops located inside or around the capital of the Vega. These workshops produced also for other sites, and therefore their output must have been higher. This fact and the higher level of standardisation observed in the pots suggest that these workshops were more complex, perhaps nucleated workshops or specialised villages (Peacock 1982: 38-43; cf. van der Leeuw 1976: 395-398). In this period, written sources also document the embedding of the pottery production system in the official channels of distribution of the state, as it can be observed how the legal system establishes rules for the trade of pots between wholesalers (who perhaps were the potters themselves) and retailers (Aguirre 2000).

In this paper I will focus on the contrast observed between the production of cooking pots and large containers in the Vega of Granada. The chronological range covered goes from the 6th to the 12th centuries AD, and therefore it includes the process of Islamicisation.

Methods and results

I will use three lines of evidence to illustrate the contrast in this study: morpho-typological development, modelling techniques observed in macroscopic analysis and petrography.

The morpho-typological development of both the cooking pots and the large containers is very uniform in all the sites of the Vega (Figures 2 and 3). The types are well defined for each one of the four phases mentioned above, and they are present in every site that has occupation in the relevant phase. This uniformity in pottery typology is in fact what makes the Vega a homogeneous cultural region different to others that are very near, like the Campiña of Jaen (immediately to the north; Castillo 1998) and the coast of Granada (40 km south, Gómez 1998). However, there is an important difference in the morpho-typological developments

of cooking pots and large vessels. The cooking pots maintain the same basic characteristics throughout the period under discussion: globular or pear-shaped body with a capacity of 2 to 3 litres and short neck (Carvajal and Day in press). In the case of the large containers this is not so clear. During the first of the two contexts of production that have been described, the Late Antique type of storage vessel *par excellence*, the *dolium*, disappears, and is substituted by two new types that did not exist in Iberia previously: the *tinaja* and the *alcadafe*. The *dolium* has a rounded shape, lacks neck and is usually very large (Peña 2007: 46-47). The *tinaja* is the new storage vessel of the Medieval period (and, in fact, of the Islamic period): the body is somewhat more stylized and it is smaller than that of the *dolium*, though still quite large (Roselló 1978: 162-163). The *alcadafe* is a large basin. Although in the Late Medieval period they are usually quite shallow (Roselló 1978: 169), they are deeper in the early Islamic period (perhaps 20 to 30 cm). It is important to mention that the *alcadafe* is not a storage vessel properly, so it has not the same function as the *dolium*. Nevertheless, in technological terms its production goes in parallel to that of the *tinaja* (as I show below), and therefore it is appropriate to include it in this study.

The next kind of evidence considered in this article, the fashioning techniques, will illustrate better the contrast that I am describing. As stated above, the cooking pots kept the same basic characteristics between the 6th and the 12th centuries. The main changes in types are manifested in rims, handles and finishing techniques, elements that are relevant, but that could have been altered without requiring major changes in the fashioning process (Carvajal and Day in press). The same does not apply to the large containers. The fashioning of the *dolia* was entirely by hand, probably using the slab building technique (as no coils have been documented). The same technique could have been used in the bodies of *tinajas* and *alcadafes*, but necks and rims and even bases were frequently (though not always) made on a wheel. Thick coils of clay often mark the exterior of the joints of the different slabs and wheel-made parts on these vessels, something that is never documented in the *dolia* of the Vega.

The third line of evidence that I want to discuss is the petrographic study of the cooking pots and large containers documented in the archaeological site of Granada, which is relevant for being one of the centres of political activity in Late Antiquity and the Early Medieval period and the capital of the Vega

from the early 11th century until today. The petrographic analysis presented here has been made according to the methods developed by I. Whitbread (1986; 1989; 1995: 365-396). The descriptions of the fabrics of the cooking pots (marked as RW) have been included in a wider study (Carvajal and Day in press). Another work is in preparation with more details about the fabrics of the large containers (with the initials LC). For this reason the numbers of the fabrics do not follow a consistent order. The data, however, offer enough light to illustrate the conclusions of this paper.

RW3: Schist fabric (Figure 4). This fabric is dominated by low-grade metamorphic rocks, especially muscovite-schist, but biotite-sillimanite schist, white-mica schist and quartzite are frequent. Monocrystalline grains of quartz are abundant. Garnet and discrete mica grains are also frequent, phyllite is common and sedimentary rocks like chert, micritic limestone and mudstone are also found. The Fabric RW3 is used in cooking pots that were manufactured in workshops in Granada or in its immediate surroundings.

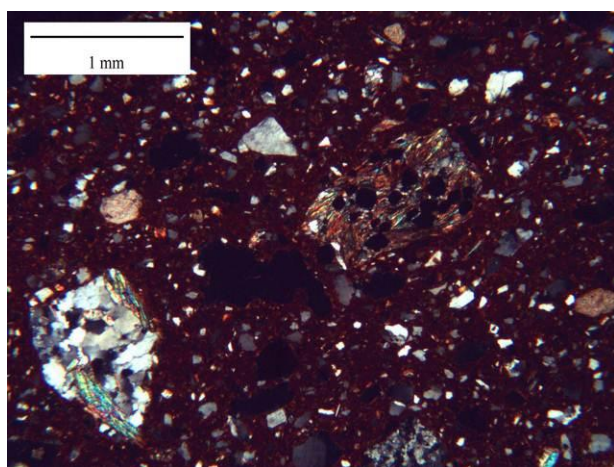


Figure 4. Fabric RW3: schist. Micrograph showing muscovite and biotite-sillimanite schist (left) and phyllite with garnets and opaques (right). Fragments of monocrystalline quartz, chert and micritic limestone are visible as well.

This provenance is evidenced by a) the distribution of the fabrics observed in all the sites in the Vega, that shows how Fabric RW3 is abundant in Granada in all the phases; and b) by the comparison with the geological environment of the site, which matched the petrology observed in the fabrics very well (Carvajal and Day in press). It is important to remark the fact that the clay recipe of the fabric does not show any changes in all the period under study, in

spite of innovations observed in morpho-types and modelling techniques.

LC1: Schist and meta-sandstone fabric (Figure 5). This fabric is dominated by large grains of biotite-chlorite schist and meta-sandstone that contain common minerals of amphibole, zoisite, epidote and garnet. Quartzite and discrete mica grains are abundant. Less frequent are muscovite schist and biotite-sillimanite schist. Meta-siltstone ranging into phyllite with contents of chlorite, biotite and muscovite are frequent, and few mudstone, micritic limestone and chert can be located. This description shows that the petrology of this fabric is very similar to that of RW3, but there are significant differences in the contents of sedimentary rocks (more abundant in LC1) and in the degree of metamorphism of the rocks (even lower in LC1 than in RW3). Of course, another relevant difference is the grain size distribution of the inclusions, which is markedly bimodal in the case of LC1 (the larger grain size is between 2.28 and 4.56 mm) and less so in RW3 (grains are rarely beyond 2 mm of largest dimension). Fabric LC1 is used for *tinajas*, although other studies in preparation show that in the Late Antique period it is also documented in *testi*, handmade forms related to cooking functions (but never in *dolia*).

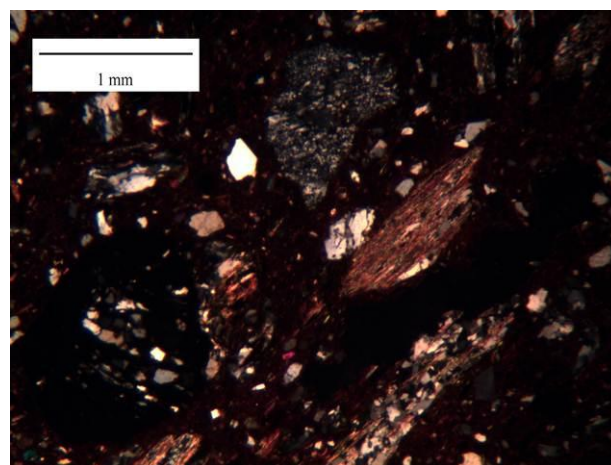


Figure 5. Fabric LC1: schist and meta-sandstone. Micrograph showing large grains of schist, phyllite, chert and meta-sandstone. A large garnet in process of crystallization appears at the centre-left, and it contains a fragment of sandstone that is still visible inside.

LC4: Fine fabric (Figure 6). This fabric has a very fine texture, with very few exceptions in small grains of muscovite schist, biotite schist and sandstone. These rocks are also located in the fine fraction, where they are common, and where few micritic limestone and

very few mudstone fragments are also found. The matrix is has abundant mica and some calcite and quartz. It also contains textural features that suggest clay mixing. Fabric LC4 is located in Granada and exclusively associated with *dolia* between the 6th and the first years of the 9th century and, like the *dolia*, is no longer documented in later periods.

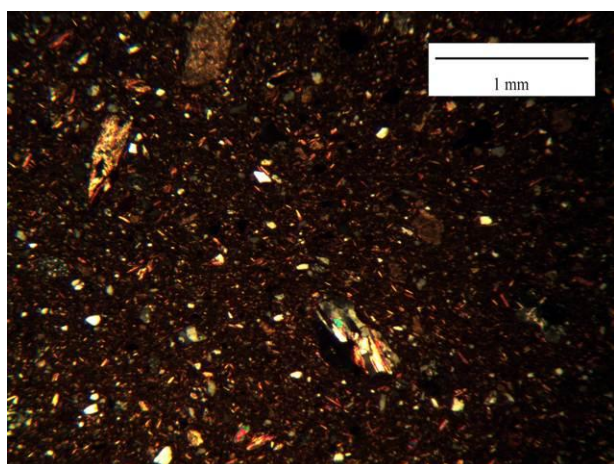


Figure 6. Fabric LC4: Fine fabric. Micrograph showing a grain of biotite-schist with another mineral (possibly epidote or tourmaline) and three grains of micritic limestone. Small quartz grains, discrete mica and detrital epidote are observed in the fabric.

Conclusions

The three lines of evidence that have been presented in this study provide a contrasting picture of the production of the cooking pots on the one side and of the large containers on the other side. This contrast is firstly evident in the development of cooking pots and storage vessels between the 6th and the early 10th centuries AD in the Vega of Granada. Whereas cooking pots exhibit changes in their morpho-typologies and modelling techniques, their morphology remains basically unchanged. The large containers show a more conspicuous change in morphology that can be more precisely located between the 8th and the 9th centuries AD. The change was so fundamental that it was accompanied by an important transformation of the shapes involved. The contrast can be further explored with the petrographic study. The Fabric RW3 was used in the manufacture of cooking pots already in the Late Antique period, and its clay recipe remained unchanged during the Islamic period. The *dolia* of the pre-Islamic period, however, disappeared after the Islamic period, and the same happened with their fabric in Granada (LC4). The storage function of the

dolia was taken over by a new type, the *tinaja*, which features also a new fabric, LC1.

The *tinaja* was made with the same fabric and very similar technical procedures as the *alcadafe*, and therefore it is valid to place them in the same production context (they were in all likelihood manufactured by the same potters). These evidences suggest that the change was not a matter of simple substitution of shapes, but of social practices that called for a new technological approach.

It is important to stress that, in spite of the above-mentioned contrast, the transformations in the production system of the cooking pots are not minor, as has been shown in another paper (Carvajal and Day in press). This study shows that the locus of the change in the cooking pots is more clearly manifest in the spatial distribution of the workshops in the Vega. This is not the case with the large containers. Works in preparation suggest that the spatial distribution of the workshops that produced these vessels is not so relevant, although more research is needed to offer a good answer to this question. The locus of change in this case is not only in the practice of production itself, as seems to be the case of the cooking pots, but also in the social practice that generates the need for the vessels. What the change in social practices was we can only speculate at this point.

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