

Pottery, Roman Empire

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It is hard to conceive of a household in the Roman Empire that could make do without pottery – for the storing of foodstuffs, the cooking and serving of meals, the drinking of wine and other beverages, etc. Artifacts of glass and metal were used for similar purposes, and they were presumably more prestigious than their ceramic counterparts. But Vitruvius' observation "our tables are loaded with silver vessels, yet everybody uses earthenware for the sake of purity of taste" (8.6.11) shows that this was not the only issue involved.

Vessels of fired clay shatter easily, but their sherds are nearly indestructible and hence ubiquitous in the archaeological record. They are bearers of a multitude of messages which, if properly decoded, illuminate aspects of, for instance, group identity building and patterns in history, notably of socio-economic options of production, exchange, and consumption in ancient times (Greene 2008), that written sources do not reveal. Roman pottery has been studied at least since the Renaissance, but the scholarly focus has gradually shifted from an art historical appreciation to an approach using the ceramic finds as a source for ancient history, as well as aspects of material culture studies (Greene 1992; Pucci 1997).

The study of Roman pottery has progressed remarkably in recent years. Yet the discipline is still in its infancy in certain respects. Despite fine examples of the opposite, many publications of ceramic material (particularly from sites in the eastern Mediterranean) still comprise only a small selection of the often enormous quantities of pottery excavated at any Roman site. The abundance of material is both a boon and a bane. The former, because it enables us to quantify the ceramic finds and subject them to various scientific analyses (Riley 1979; Orton *et al.* 1993; Orton 2009), and the latter because the sheer scale of the material makes

any complete study extremely time-consuming and costly (Poblome *et al.* 2006).

The archaeology of material culture, such as Roman pottery, is mostly approached from one of three angles:

1. The artifactual remains, which feature centrally in:
 - a) typological frameworks (Hayes 1972; Bonifay 2004), sustaining the chronological allocation of objects, features, processes/events, and sites;
 - b) distribution patterns and their implications for the workings of the ancient economy (Reynolds 1995; Reynolds 2010); and
 - c) functional/contextual analyses, highlighting aspects of daily life (Allison 2004; 2009);
2. The production environment, which can be studied from the remains of production infrastructure (Dufay *et al.* 1997), the finished products (Feinman *et al.* 1981; Oxe *et al.* 2000; Brulet *et al.* 2010) and how the production process nested into structures of Roman society (Strobel 2000);
3. Archaeometrical programs, applying physical and chemical scientific methods and techniques, in order to characterize objects and materials (Picon 1973; Schneider 2000).

Each of these approaches requires specialization, accentuating the inherent danger of too little communication between the fields. Therefore, a holistic approach to the ancient craft and its products is advocated, represented by the concept of *chaîne opératoire* or object production and use sequences (Caple 2006). *Chaîne opératoire*:

refers to the range of processes by which naturally occurring raw materials are selected, shaped, and transformed into usable cultural products, [indicative of] some of complex social, ecological and cognitive dimensions surrounding ancient technical activities ... (extraction, production, transport, use, [discard]) (Schlanger 2005).



Figure 1 Potting tools (potter's rib, fettling knife, grinding stone, and scraper), stamps for decorating molds, and molds for oinophoroi (wine flasks), figurines, and oil lamps found in the late Roman Coroplast workshop at Sagalassos, southwest Turkey. Courtesy of Sagalassos Archaeological Research Project of the Katholieke Universiteit Leuven.

The concept of *chaîne opératoire* helps to structure archaeological data, revealing non-coincidental patterns in empirical observations, with the aim of approaching the relationship between the execution of certain technological processes and their social embedment (Dobres 2000). Material culture should not only be studied in a traditional analytical/descriptive way, but aspects, such as decision-making processes, skills, and knowledge of the parties involved in production, the cultural transformation of things into commodities, consumption behavior affecting goods, as well as the limitations and constraints of these aspects, need to be approached also (Poblome *et al.* 2007).

When considering the production of Roman pottery, no single line of inquiry should be considered in isolation, but the production unit must be considered as a complex network of social, cultural, economic, and technological interactions that constantly

influence and recursively are influenced by each other, and which can be elucidated from the material record. Discussions of Roman period production organization and scales of production have very much centered on the important work by Peacock (1982). This text, fundamental in the promotion of ceramic production studies in Roman archaeology, defines modes of production by classifying industries according to organizational complexity (household production, household industry, workshops, nucleated workshops, manufactories, estate production, and production by authorities). Peacock himself warns against the potentially reductionist nature of this classification, which oversimplifies and blurs fundamental variability expressed in the archaeological record, advocating the detailed study of the production environment (Bergamini 2007).

In addition, the work of Arnold (1985) has proven seminal to ancient ceramic production studies. This text impressively integrates a

large corpus of ethnographic ceramic production data in an attempt to theoretically blend systems thinking with cultural ecology. This approach makes Roman pottery less self-explanatory through drawing attention to issues such as the variability of resources, the threshold model of exploiting ceramic resources, the importance of weather and climate in a general model of cultural process, the necessity of scheduling the artisanal production process in relation to (other) subsistence activities, the role of demand in planning the level of output, the effects of population growth, policies of land sustainability, and technological innovations. Once again, although providing a very useful conceptual framework, the generalizing theoretical nature of this text must be employed solicitously, allowing for unique variability of each archaeological site. Recent archaeological scholarship on craft production in other regions has begun to proceed in different theoretical directions and to expand the application and interpretive potential of production studies. Aspects such as ritualized production, social value, control over and transmission of knowledge, gender, and social standing of artisans, are beginning to take center stage in the investigation of craft industries in antiquity (Hruby and Flad 2008).

In Roman times, each artisanal production process formed part of a pre-industrial environment (Wilson 2002), but the potters made good use of innovations, technological and otherwise, of the Hellenistic East, for example, the invention of the mold for making identical relief bowls (Rotroff 2007), the emergence of the concept of mass production of highly standardized vessel forms (Lund 2004), and the emergence of lead-glazed pottery (Greene 2007). Although the reconstruction of total production output of Roman pottery is still a hazardous scientific experiment, proportions can be considered astronomical (Willet and Poblome 2010), albeit dependent on time/space specific options of supply and demand. Pottery was used for practically every aspect of daily life and was also generally affordable and available. Evidently there was money to be

earned in the artisanal sector (Mattingly and Salmon 2001) attracting, in specific cases, third-party investors into the craft. However, the scale of output and investment was dependent on population size. The “low equilibrium trap” in which, in the long term, limited increases in output raise surpluses that do not match the increase of the population, and population growth will eventually offset intermittent productivity gains, characterized the Roman economy (Scheidel *et al.* 2007). The production of Roman pottery also wrote itself into the contemporary constitution of the market, which can generally be regarded as a free market in antiquity (Morley 2007). However, the proportion of few suppliers in relation to many customers, the limited level of available information on product availability and demand (Bang 2008), the restricted amount of product differentiation (e.g., the popularity of the late Roman amphora series throughout the Mediterranean, Tomber 2004), and the absence of global competition, characterized Roman markets as an oligopolitical system (Vives 1999). As such market systems strive towards stable conditions, the producers of Roman pottery, like most other contemporary economic initiators, probably tried to contain risks as much as possible, resulting in investment in the craft mainly aimed at guaranteed sales in the immediate, known environment and satisfied customers with a near-constant quality level product. In stable socio-economic conditions, these processes resulted in the establishment of a socio-cultural *koinè* or common language of material culture, the geographical outreach of which was dependent on the action radius of production sites/towns/regions (*faciès géographiques* as documented by Bonifay 2004). As most regions within the Roman Empire displayed a modest potential of connectivity (Horden and Purcell 2000), artisanal and pottery studies can make an important contribution to discussions on local community (Gerritsen 2004), regional identity (Hales and Hodos 2010; Whitmark 2010), and ethnicity (Derks and Roymans 2009), as well as socializing the

production landscape through the professional associations (Van Nijf 1997) and the role of non-elite groups involved in pottery production tapping into the potential of regional societal evolutions (Roth 2007).

In general, the production of Roman pottery demonstrates how technology formed part of political, social, economic, and religious dimensions of daily life in antiquity (Cuomo 2007) mirroring Roman society. In this sense, each piece of Roman pottery should be regarded as a sign of its times. Both its production and consumption involve aspects of non-coincidental and intentional behavior, demonstrating how the making and using of material culture formed part of implicit and/or explicit communication strategies at individual and/or group level (Schiffer 1999), attesting to how mere objects became cognitively and culturally charged commodities, and promoting the study of object biographies (Kopytoff 1986). Both the application of methodologies of contextual analysis (Papaconstantinou 2006) as well as our increased understanding of Roman pottery in the archaeological record, indicate the potentially complex use-life of Roman pottery, including stages of manufacture, distribution, prime use, maintenance, reuse, recycling, discard, and reclamation (Peña 2007; Lawall and Lund 2011).

As in other branches of scientific research, scholars are confronted with a large arsenal of theoretical approaches, and there is a growing realization that it is legitimate and even desirable to combine them, since no single approach is likely to answer the “big questions” that we seek to illuminate.

A good unexpected example concerns pottery as a source for the ancient mindset. It is true that Roman pottery is mostly undecorated, but a great many vessels, particularly those used for drinking, carried relief-decoration. Our ability to read and understand ancient images in general has progressed in recent years, enabling a glimpse into their intrinsic social, political, cultural, and religious meanings, etc. (Massa-Pairault 2005; Talloen

and Poblome 2005). It is recognized that iconography and iconology are complementary analytic and synthetic means of addressing the meanings of artistic representations. Until recently, scholars rejected a research method going beyond the traditional typology and classificatory system, but it is now realized that in order to understand the relief-decorated ware, it is necessary to try to explain the presence of specific images and schemes, taking the key role played by form, function, and decorative repertoire into account (Malfitana 2006).

Arretine relief pottery is a striking example of this. Many studies have shown that it drew its decorative repertoire from images taken over from Hellenistic iconography, in particular from its *toreutics* (Siebert 2007). New was that the craftsmen in Arretium were obliged to choose from their source repertoire, making choices that were apparently strongly influenced by market demands. They evidently gave priority to subjects that were known, appreciated, and understood by large groups of potential buyers. In the early production phase, the workshops employed themes that had previously been developed in Augustan propaganda (Troso 2002). The vessels were an excellent vehicle for this, since they were sold both in Italy and the provinces, and circulated widely among private citizens. The craftsmen also inserted mythological and epic themes into their repertoire, which played a significant role in the early imperial ideology, for example, the *Amazonomachy*, the *Centauromachy*, the *labors of Hercules*, and *Hercules and Omphale*. The Arretine picture cycles are an important testimony at the iconographic level, and they offer a decisive contribution to the knowledge of the themes developed within official contexts, where the mythical tales played a key role.

Other prime examples of Roman pottery used as vehicles for iconographic messages are the so-called Corinthian relief bowls from the second to the third century CE (Malfitana 2007) and, at a later time, the pilgrim flasks produced in the Holy Land or in Asia Minor, which were acquired by the pilgrims during

their visits to major places of worship. These objects sharply capture the connections between representation, subject, and contents that enhanced the power and role of images represented on the exterior of the vase (Talloon and Poblome 2005).

In conclusion, the application of standard analytical methods and fieldwork practices common to pottery studies in archaeology (Orton *et al.* 1993; Rice 1987), has led to an unparalleled treasure of documentation on the presence and evolution of Roman pottery in practically every region which formed part of the empire at one point or another. This fairly descriptive body of knowledge is represented in exemplary ways in the proceedings of scholarly associations, such as the “Rei Cretariae Romanae Fautores” (<http://www.fautores.org/>) and the “Late Roman coarse wares, cooking wares and Amphorae in the Mediterranean” conferences (Esparraguera *et al.* 2005; Bonifay and Trégliia 2007). Clearly, the challenge which the field of Roman pottery studies currently faces is building solid bridges between this traditional body of knowledge and the more conceptual agenda of the wider archaeological discipline. Innovative insights in the functioning of Roman pottery as proxy evidence for the functioning and potential trajectory of moderate growth of the ancient economy (Greene 2005; Scheidel *et al.* 2007), sustained by specific technological developments, indicate the ground-breaking potential of combining tradition with new disciplinary research agendas. The study of Roman pottery is essential in other innovative debates also, such as in the construction of social and ethnic identities in the ancient world and the way in which power structures shaped the functioning of material culture at interconnected scales and cycles at the level of households, communities, regions and, finally, empire (Roth 2007; Hales and Hodos 2010; Derks and Roymans 2009).

SEE ALSO: Artisans, Greece and Rome; Pottery, Archaic and republican Rome; Pottery trade; Technological change; Trade, Roman.

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