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1994

MSC MONOGRAPHS IN MATERIALS AND SOCIETY, 2

# THE CERAMICS CULTURAL HERITAGE

Proceedings of the International Symposium  
The Ceramics Heritage of the  
8th CIMTEC-World Ceramics Congress and Forum on New Materials  
Florence, Italy June 28-July 2, 1994

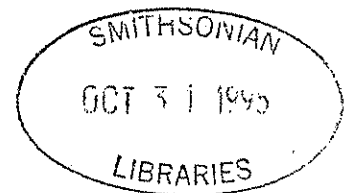
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## THE ORGANIZATION OF POTTERY PRODUCTION IN ROMAN SOUTH ETRURIA

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A re-examination of the surface collections made by the South Etruria Survey has revealed the presence of several Roman-period pottery workshops in southeastern Etruria. The fullest evidence is for the early/middle Empire, when there were several workshops active in rural areas. Each workshop manufactured a wide array of products in several distinct fabrics. The economic basis for this production is discussed.

### 1. INTRODUCTION

This article summarizes the results of a study of Roman-period pottery production in southeastern Etruria. The aims of this work were to identify Roman-period workshop sites, determine the range and production techniques of their output, estimate the chronology of their activity, and evaluate the extent to which the products of different workshops can be distinguished on the basis of fabric composition. The larger goal was to obtain an overview of the organization of pottery production within this extensively studied region, using the evidence to draw inferences about economic activity in the immediate hinterland of ancient Rome.

### 2. METHODS

The study area is situated in west-central Italy, on the right bank of the Tiber River, immediately to the north of Rome. (fig. 1) It corresponds to the territory investigated by archaeologists from the British School at Rome in the course of the South Etruria Survey, carried out circa 1954-1974.<sup>1</sup> The region has a complex geology, with sedimentary deposits of the Plio-Pleistocene marine transgression overlain by tuffs ejected from two different vent systems belonging to the Central Italian Volcanism. The drainage network is deeply incised, in some areas re-exposing pre-volcanic formations, including small outcrops of Plio-Pleistocene marine clay.

The study involved the re-evaluation of the surface collections made during the South Etruria Survey, with the aim of identifying pottery workshops active during the Roman

period (fourth century BC - fifth century AD) on the basis of waster pottery, kiln debris, or other such evidence. The pottery assemblage from each workshop site was studied with the aid of a 40x binocular microscope in order to ascertain 1) the range of distinct fabrics and fabric variants produced at that establishment (A fabric was defined as a body manufactured using a distinct set of raw materials and processing techniques; sets of sherds within each fabric group that shared minor textural differences were grouped together as a variant of that fabric.), 2) the raw materials and processing techniques used for the production of each fabric, 3) the set of forms produced in each fabric, and 4) the forming techniques employed for the manufacture of these forms. Five examples of each fabric variant were selected for petrographic characterization and 15 examples of each of the fine-bodied fabric variants were chosen for chemical characterization by neutron activation analysis (henceforth NAA).

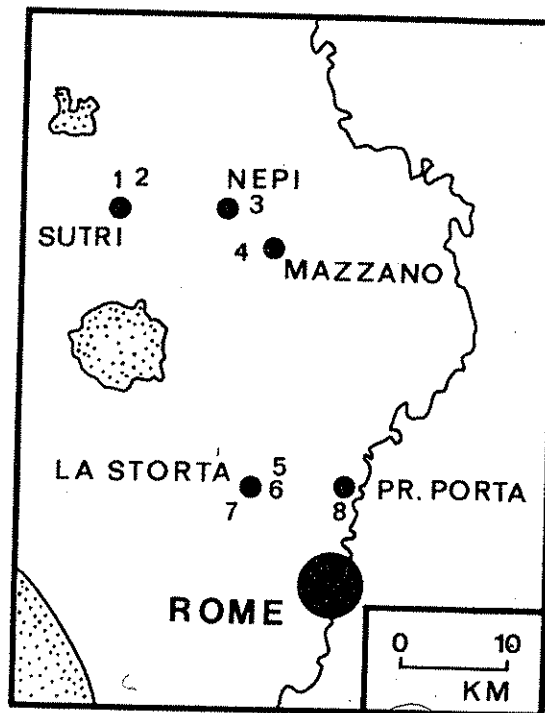


FIGURE 1  
Map of South Etruria and Rome area. Numbers indicate locations of pottery workshop sites discussed in the text.

In addition, three groups of regional folk potters (located at Mazzano, Vasanello, and Vetralla) were interviewed in order to ascertain their production practices, and specimens of their raw materials and finished products were collected for compositional analysis. Clay specimens from several outcrops within the study area were also obtained for comparative purposes. At the time of writing, the program of compositional analysis is but partially complete.

### 3. RESULTS

A total of 12 Roman-period pottery workshops was identified within the study area. This must represent only a minor fraction of the total number of establishments active within the region during Roman times. The low recovery rate probably can be attributed to a variety of factors: pottery workshops may not be readily identifiable from their surface remains; the field walkers performing the survey may have failed to recognize and collect production-related debris; and the coverage obtained by the survey may have been biased against areas where pottery workshops tend to be located (e.g. town centers and valley bottoms). In light of this situation, it is clear that the group of sites identified cannot be taken as a representative sample of all those which existed in the region in Roman times, and any effort to employ these data to derive generalizing interpretations must be undertaken with caution.

Of the 12 pottery workshops identified, a reasonably clear idea of production could be established for only eight. These can be summarized as follows:

1. Monte della Guardia: Isolated rural workshop, 1.5 km N of Sutri, active ca. AD 40-70.<sup>2</sup> Products - Fabric 1: serving/storage vessels and possibly Dressel 2/4 amphorae in a slightly gritty, highly ferruginous, low-calcium body; Fabric 2: thin-walled ware, color-coat thin-walled ware, and tablewares in a fine, highly ferruginous, low-calcium body; Fabric 3: cooking and serving/storage vessels in a highly ferruginous, low-calcium body containing medium to coarse volcanic sand; Fabric 4: cooking and serving/storage vessels in a highly ferruginous, low-calcium body containing medium quartz.

2. Fonte Vivola: Isolated rural workshop, 1.8 km NE of Sutri, active first-second century AD. Products - Fabric 1: color-coat thin-walled ware, color-coat and unslipped tableware, and serving/storage vessels in a fine, highly ferruginous, low-calcium body; Fabric 2: brick/tile, cookware and serving/storage vessels in a highly ferruginous, low-calcium body containing medium to coarse volcanic sand.

3. San Biagio: Workshop annexed to large villa, 2 km ESE of Nepi, active second half of first to second or third century AD. Products - Fabric 1: color-coat and unslipped tableware and possibly lamps in a fine, ferruginous, carbonate body; Fabric 2: brick/tile, color-coat and unslipped tableware, utilitarian vessels, and possibly transport amphorae in a ferruginous, carbonate body containing fine to coarse volcanic sand; Fabric 3: cookware and utilitarian vessels in a highly ferruginous, non-carbonate body containing medium to coarse volcanic sand.
4. Valle l'Abbate: Workshop annexed to large villa, 1.5 km W of Mazzano, active from second half of first to second or third century AD. Products - Fabric 1: color-coat tableware, unslipped serving/storage vessels, and possibly lamps in a fine, non-ferruginous, carbonate body; Fabric 2: color-coat tableware, unslipped serving/storage vessels, and brick/tile in a non-ferruginous, carbonate body containing medium to coarse volcanic sand; Fabric 3: cookware and serving/storage vessels in a highly ferruginous, non-carbonate body containing medium to coarse volcanic sand.
5. Comunità: Workshop located 2.5 km NE of La Storta, within the early Roman settlement of Veii, active ca. 350-300/275 BC. Products - Fabric 1: Etrusco-geometric, slip decorated, color-coat and unslipped tablewares and kiln furniture in a fine, ferruginous, carbonate body; Fabric 2: "coarse creamware" serving/storage vessels in a ferruginous, carbonate body containing coarse volcanic sand and with surfaces covered with a whitish slip; Fabric 3: "internal slip ware" cookware in a highly ferruginous, non-carbonate body containing coarse volcanic sand with interior surface covered with a pinkish slip.
6. Casale del Pino: Workshop annexed to small villa, 1 km E of La Storta, active first century AD. Products - Fabric 1: tablewares and serving/storage vessels in a fine, ferruginous, carbonate body; Fabric 2: brick/tile and serving/storage vessels in a ferruginous, carbonate body containing coarse reddish tuff fragments; Fabric 3: kiln furniture, cookwares, and serving/storage vessels in a highly ferruginous, non-carbonate body containing coarse volcanic sand.
7. Tenuta del Forno: Workshop annexed to large villa, 1.8 km SW of La Storta, probably active at some point during third to fifth centuries AD. Products - Fabric 1: serving/storage vessels in a highly ferruginous, non-carbonate body containing fine mica and medium quartz; Fabric 2: storage vessels and brick/tile in a highly ferruginous, non-carbonate body containing fine mica, medium quartz, and medium to large volcanic sand.

8. Prima Porta: Workshop situated among tombs alongside the Via Flaminia, 600 m SSE of Prima Porta, active ca. AD 20-100. Products - Fabric 1: serving/storage vessels and garden vessels in a slightly gritty, ferruginous, carbonate body; Fabric 2: Italian sigillata, thin-walled ware, color-coat ware, and unslipped tableware in a fine, ferruginous, carbonate body; Fabric 3: cooking and serving/storage vessels in a highly ferruginous, non-carbonate body containing medium to coarse volcanic sand.

On the basis of the fabric classifications presented above it has been possible to reconstruct the practices of raw material procurement/ processing employed by each of these workshops. The two establishments in the Sutri area (Workshops 1 and 2) made use of the fine, ferruginous, low-calcium clay that occurs within the large outcrop of Miocene sediments immediately to the north of the town for the manufacture of tablewares and serving/storage vessels; volcanic sand temper was added to this material to make cookwares, heavy serving/storage vessels, and brick/tile. At Workshop 1 the clay was levigated for the manufacture of thin-walled ware and some other tableware forms, while some cookware and storage forms were produced with a quartz-rich clay that is likely to have been obtained from a bed of sandy clay occurring within the same Miocene sedimentary formation.

Five of the workshops (Workshops 3, 4, 5, 6, and 8) employed clay taken from the outcrops of the Plio-Pleistocene marine clay that occur in some valley bottoms, using it in an unmodified state or, in one case (Workshop 8, Fabric 2), after levigation, for the manufacture of tablewares. Volcanic sand temper was added for the manufacture of heavier serving/storage vessels and brick/tile. The production of cookwares at these workshops involved the use of a ferruginous, non-carbonate paste containing volcanic sand. In recent times, traditional potters at Vasanello and Vetralla have manufactured similar cookwares, employing an unmodified clay derived from weathered volcanic material,<sup>3</sup> and it seems likely that clays of this kind also were exploited for cookware manufacture by these five ancient workshops. Deposits of clay derived from weathered volcanic material appear to be uncommon within the region, and the precise conditions under which they are formed remain unclear.

Workshop 7 employed a clay rich in medium-grained quartz for the manufacture of serving/storage vessels, with volcanic sand temper added for heavier serving/storage forms and brick/tile. Extensive exposures of sandy, Pleistocene sediments occur along stream valleys in the vicinity of this establishment, and the source of this clay should be sought among these.

The extent to which it is possible to discriminate between the products of different workshops or raw material source areas within the region on the basis of ceramic mineralogy will remain unclear until the petrographic component of the program of compositional analysis reaches completion. Immediately striking, however, is the considerable textural heterogeneity attested within most of the coarse-bodied fabric groups, as expressed in the large number of fabric group variants that have been recognized for these. At Workshop 4, for example, an establishment probably active for only a few decades, cookware/storage vessels are attested not only in five variants of the volcanic sand tempered fabric, but in a quartz fabric as well. This should serve as a cautionary reminder to researchers engaged in the development of fabric classifications for pottery assemblages from non-workshop sites that divisions of their material based on fine textural distinctions may involve levels of compositional variability that are of questionable archaeological significance.

The NAA data for a first group of 46 specimens of fine-bodied pottery manufactured at five of these workshops suggests that this technique should be able to differentiate reasonably well between fabric groups manufactured with clays drawn from different sources within the region and permit the matching of these groups with their source clays.<sup>4</sup> Limiting factors include a certain amount of chemical overlap between fabric groups manufactured with clays obtained from the several outcrops of Plio-Pleistocene marine clay, and the substantial alteration of the chemical profile of some specimens due to the presence of sporadic bits of volcanic material.

#### 4. DISCUSSION

The only period for which these results provide something like a coherent picture of regional pottery production is the early/middle Empire period, roughly the first to third century AD. During this period a substantial amount of production appears to have occurred in the context of isolated rural workshops or workshops annexed to villas. The former may, of course, have been simply physically separate from villa structures, while functioning as part of agricultural estates. Since survey coverage of town areas was poor, it is unclear to what extent there was also pottery production in these centers during the early/middle Empire.

In every case, workshop production appears to have been highly diversified, embracing various kinds of tableware, serving and storage vessels, cookwares, and, in some cases, lamps, brick/tile, and possibly transport amphorae. Although diversified production of this

kind might have been intended largely to meet the needs of a single agricultural estate, this period was the heyday of rural settlement within the area, with a dense scatter of villas and small farmsteads across the region, and it seems more likely that the output of these workshops was destined primarily for the supply of a variegated local market. If the intensification of demand for craft goods in rural areas explains the rise of regional production, the reason why a substantial amount of this production should have been situated in rural areas rather than towns is less clear. For isolated workshop sites or those connected with a small villa, it may be a case of small-scale landowners supplementing a marginal agricultural income or tenant farmers raising the cash for rents through a second activity. In the case of large villas, it may be that the intensification of production at facilities originally created for the supply of estate needs permitted the realization of useful income at little additional cost. The emergence of rural production in the context of high levels of rural demand also raises the possibility that the distribution of these products was accomplished by some means other than that of markets situated in towns, such as informal markets in rural locations, roadside stands, itinerant sellers, or direct retail at the workshops themselves.

The workshop at Prima Porta stands as an exception to this pattern. While this establishment's production was highly diversified, its immediate setting (a roadside necropolis) and general location (the outskirts of Rome) suggest that it was an autonomous workshop, perhaps concerned in large part with the supply of the urban market. The author has, in fact, recognized products of this workshop - alone of those identified in this research - among pottery deposits of Roman imperial date that he is currently studying from excavations on the northeast slope of the Palatine Hill.<sup>5</sup>

The study produced little evidence regarding pottery production in the periods preceding and following the early/middle Empire. There is a certain amount of evidence (some not presented here) that in the Republican period production may have occurred in settlement centers and not in rural locales. There is very little evidence for production facilities in the late Empire, and rural production may have followed regional settlement into decline during this period.

## 5. CONCLUSIONS

The study of the surface collections of the South Etruria Survey revealed an unexpectedly small number of Roman-period pottery workshop sites. Most of these establishments employed a range of different raw materials to manufacture a wide array



of functional types of pottery in several distinct fabrics. The bulk of the workshops identified were active during the first to third centuries AD and were situated in rural areas. These establishments manufactured a wide array of products, presumably for the local market. The economic basis for this kind of production remains uncertain, although it may have involved an effort on the part of small-holders or tenant farmers to supplement their income through diversification, or for large estates to increase income through intensifying production at facilities originally created for the purpose of supplying the needs of the estate.

#### ACKNOWLEDGEMENTS

The author would like to express his appreciation to the Soprintendenza Archeologica per L'Etruria Meridionale and the British School at Rome for permission to study materials in their collections. The NAA of pottery and clay specimens was carried out during the course of a post-doctoral fellowship in archaeological materials analysis at the Smithsonian Institution, using the Smithsonian/N.I.S.T. activation facility in Gaithersburg, Maryland.

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