Chapter 4

Bucchero

The term bucchero is used to denote a large group of wheel-made black pottery that was produced in Etruria from the 7th to the 4th centuries. Much has been written about bucchero pottery, particularly in the last forty years. The following section of this paper will not attempt to present a complete synthesis of all publications as the list would be vast. The publications listed below are those that provide a thorough overview of different aspects of bucchero production.

One of the most important publications with regard to the study of bucchero is the 1979 catalogue and typology of early bucchero found at the cemeteries of Cerveteri, San Giuliano and Tarquinia by Tom Rasmussen (Rasmussen 1979). Rasmussen’s typology has been used as the basis of bucchero categorisation since it was published and follows on from earlier work in this region of Etruria, in particular that of Nancy Hirschland Ramage (1970) on bucchero from the earliest tomb groups at Cerveteri. As Cerveteri was a major centre of production of bucchero Rasmussen’s typology has been used as a basis for classification of early bucchero at sites across Etruria.

Jean Marie Gran-Aymerich has written extensively on bucchero. In particular, he has written a number of articles regarding the relationship between metal vessels and bucchero. His article in Produzione artigianale ed esportazione nel mondo antico. Il bucchero Etrusco is an informative summary of various aspects of bucchero production (Gran-Aymerich 1993). He also wrote two detailed catalogues and typologies of bucchero amphorae and oinochoai from the Louvre in the CVA France 31 and 34 respectively.

Bucchero from Southern Etruria, in particular, has been widely published. Many of the sites in this region were extensively excavated in the 19th and early 20th centuries and in the last thirty years or so a number of these sites and the artefacts found there have been republished. These include the publications of Poggio Buco by Gilda Bartoloni and Saturnia by Luigi Donati mentioned in the previous chapter (Bartoloni 1972; Donati 1989). Following on from a series of journal articles Maria Teresa Falconi Amorelli republished the excavations of Mengarelli at the site of Vulci (Falconi Amorelli 1987). These publications have all related to the excavations of cemeteries. A few significant habitation and sanctuary sites have also been published. The excavations of 1982–88 at the city site of Tarquinia were published in an edition edited by Maria Bonghi Jovino and

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1 The name bucchero is derived from the Spanish term “bucaro” used to denote a black ceramic found in Italy in the mid nineteenth century (Brady 1977, 1).
3 A series of reports by Falconi Amorelli regarding the artefacts found in these appeared in Studi Etruschi in 1967, 1968 and 1971.
others (Bonghi Jovino et al. 1997). A number of volumes pertaining to the excavation at the sanctuary of Gravisca have been published and Giampiero Pianu presented a typology and classification of the bucchero found at the site (Pianu 2000).

While bucchero from Southern Etruria has been widely studied and published there is less information available about bucchero from other regions. Jon Berkin’s publication of bucchero from the site of Murlo is one exception. While Berkin’s book is limited to bucchero from the lower building, his detailed classification provides not only examples of bucchero from the Northern region of Etruria but also from habitation contexts (Berkin 2003).

There is no typology along the lines of Rasmussen’s for bucchero from other regions of Etruria and Italy. The shapes of vessels produced in Central and Northern Etruria often do not fit into his typology. A number of authors have cited Irma Pecchiai’s typology and catalogue of bucchero artefacts, mostly from the Chiusi region, in the Fiesole museum. Her categories are helpful in broadly distinguishing the different artefact types but they are too general to be of use in identifying variant types (Pecchiai 1967). The detailed typology of bucchero produced at Orvieto by Pietro Tamburini is much more useful and it is to be hoped that further such studies will soon be published (Tamburini 2004). A series of articles included in Produzione artigianale ed esportazione nel mondo antico. Il bucchero etrusco (Bonghi Jovino 1993) and more recently Appunti sul Bucchero (Naso 2004) have presented a variety of articles on regional bucchero products as well as reassessment of some of the products of Southern Etruria.

Campania was a region that produced a distinctive bucchero product. Claude Albore-Livadie has published the most detailed typology to date (Albore-Livadie 1979) although Rasmussen’s presentation of examples of Campanian bucchero in the British Museum is also highly informative (Rasmussen 1986).

Specific classes of bucchero shapes and decorative techniques have been studied in detail. These include Jean Poupé’s study of bucchero aryballoi (Poupé 1963); Marisa Bonamici’s detailed catalogue of incised figured (sgraffito) decoration on bucchero vessels (Bonamici 1974); Giovanni Camporeale’s two analyses of cylinder stamped decoration on vessels from Tarquinia and Orvieto (Camporeale 1972a and 1972b); F. Scalia’s catalogue of cylinder stamped decoration containing human figures from Chiusi (Scalia 1968) and Luigi Donati’s series of articles on human figured relief decoration at Vulci, Chiusi and Orvieto (Donati 1967, 1968, 1969). Early Iron Age Artefacts in the British Museum is a useful publication that presents a variety of bucchero artefact types that form part of the collection of the British Museum (Swaddling 1986).4

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4 For example she has included a vessel such as thymiaterion 61 and the footed bowl 40 in the same category.
5 Other artefact classes such as bronzes and impasto are also included.
Extensive archaeometric studies have been published regarding the technology involved in the production of bucchero in recent years. Klaus Burkhardt conducted a series of petrographic and geochemical investigations of bucchero samples from a variety of regions across Etruria. His study identified particular geological features of clay from a variety of regions and looked at possible relationships between various centres (Burkhardt 1991). Ninina Cuomo di Caprio and Valeria Acconcia have both investigated bucchero production techniques, in particular the firing and the method used to obtain the black colour throughout (Cuomo di Caprio 1993; 2004; Acconcia 2004a; 2004b). Albert Nijboer presented a synthesis of bucchero production and the possible economic systems associated with it (Nijboer 1998).
Introduction

This paper will use Gran-Aymerich’s geographic divisions of Etruria. Etruria can be divided into three distinct regions: Southern, Central, and Northern Etruria. Southern Etruria was the main centre of bucchero production comprising the major centres of Cerveteri, Tarquinia, Veii and Vulci and the surrounding regions. Central Etruria includes the centres Orvieto and Chiusi and their territories. Northern Etruria extends from the Maremma to the Arno valley and includes the regions of Roselle, Populonia, Vetulonia, the region around Siena and Poggio Civitate (Murlo) (Gran-Aymerich 1993, 23–4).

Figure 6: Etruria showing principal Etruscan sites (Barker and Rasmussen 2000, 15)

Bucchero is often described as the national ceramic of the Etruscans (Gran-Aymerich 1993, 36). This pottery has a highly polished uniform black surface that is fired black to the core. The clay is fine and well levigated often with small black
or white crystalline inclusions (Gran-Aymerich 1993, 20). While bucchero developed out of the tradition of black impasto ware, impasto continued to be produced and there is often an overlap between the decorative schemes and shapes of bucchero and impasto. Forms developing in bucchero were also made in impasto and vice versa. The shape and thickness of impasto kotylai 12 and 13 have close parallels with the bucchero kotyle 25 and the decorative schemes on 12 are a feature of early bucchero. Impasto spiral amphorae such as 17 were also produced in bucchero. The decoration on impasto oinochoe 18 shows a variety of decorative techniques typical of early bucchero.

Bucchero is generally distinguished from dark impasto by the finer levigation of the clay (Rasmussen 1989, 2). Impasto has more visible inclusions and a granule size ranging from 0.25 to 4mm in size (Nijboer 1998, 70). Bucchero has greater reduction in firing and the shapes used in some cases are specific to bucchero (Rasmussen 1989, 2). Identification of bucchero, however, is not always clear as the fineness of the bucchero produced varied greatly over time. Early bucchero production was limited to fine well-made individual pieces that are easily identifiable. In later periods when the clay was generally coarser and the finished vessel thicker, the distinction between bucchero and impasto pottery may be unclear.

The nomenclature used to describe this later bucchero product is highly variable. The terms buccheroid, buccheroid impasto and impasto lucidato have all been used to identify pottery that appears to be intermediate between impasto and bucchero. This catalogue will not use any of these terms and will classify artefacts as either bucchero or impasto. Those artefacts made of well levigated clay with few inclusions that are black (or dark grey) coloured from the surface through to the core will be classed as bucchero. Vessels of variable colour—from brown to grey to black—made of coarser clay that has more inclusions and a core colour varying from red to dark brown will be classed as impasto.

Bucchero that was produced in the inland region of Etruria, particularly at Chiusi and Orvieto, tends to be fairly uniform with regard to the finished product. The surface and core colour of these vessels is variable but tends to be lighter than

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6 Grey bucchero was also produced.
7 Nijboer has suggested that the manufacture of architectural terracottas and household vessels together in one workshop is probably the main reason for the continued production of impasto fine wares (Nijboer 1998, 131).
8 This issue has also been discussed in the chapter 1 on impasto.
9 Spiral amphorae made of metal have also been found.
10 Pastes with a large number of inclusions are usually not suitable for throwing on a fast wheel (Nijboer 1998, 70).
11 Petrographic and archaeometric studies on a number of impasto and bucchero vessels that date to the mid sixth century from Cerveteri found that the same clay source was used for both artefact types and only the firing technique was different (Burkhardt 1991, 129).
12 See note 63 in Chapter 1 for discussion of buccheroid.
13 See chapters 1 & 2 for a detailed discussion of impasto fabric.
the typical black of bucchero from other regions of Etruria. The clay tends to be consistently coarser and has an overall appearance that is intermediate between bucchero and impasto (Gran-Aymerich 1993, 25). As the Nicholson Museum collection has a number of such vessels, they have been categorized together in a separate section of the catalogue.

The majority of bucchero artefacts have been found in burial contexts. A large proportion of the tombs had already been disturbed by both tomb robbing and natural causes, such as geological movements, flooding, erosion and farming practices (Hirschland Ramage 1970, 19). These events could have caused movement or damage to tomb furniture. Movement of tomb furniture is particularly a problem in chamber tombs, where multiple burials, covering a number of generations, are present, as it becomes difficult to determine the exact contexts of the various artefacts in the tomb (Rasmussen 1979, 5).

Over time it appears that the context of bucchero manufacture changed. Early bucchero was found in so-called “elite” burials (Gran-Aymerich 1993, 35). Bucchero finds from the Tomba Calabresi at Cerveteri, for example, demonstrate particular features that are associated with aristocratic elites, such as inscriptions, representations of mythical hunting scenes and of horses and carriages (Sciaccia 2004, 38). Nijboer has suggested that economic developments in Central Italy from 720 to 580 led to the growth of an elite class, which used conspicuous consumption to demonstrate their high status. It appears that bucchero may have been initially developed by master craftsmen to meet the demands of this aristocratic elite (Nijboer 1998, 3). During the course of the seventh century there was an increase in the number of tombs of intermediate status that were elaborately furnished. Groups of bucchero vessels collectively referred to as a “service” were deposited in tombs, possibly reflecting an intensification of consumption (Nijboer 1998, 4). By the end of the seventh and into the middle of the sixth century bucchero was no longer only an “elite” product but had become mass produced fine-ware adopted by a larger group of individuals (Gran-Aymerich 1993, 35). By the end of the sixth century it seems that any prestige associated with bucchero was lost and it became an everyday

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14 At first tomb robbing was limited to the more valuable objects such as metals and painted pottery with bucchero often left behind as worthless. Over time this changed and more tombs were emptied of all their contents. The tombs around the city of Chiusi are such an example. The only artefacts left in these tombs were broken sarcophagi with remnants strewn around the tomb. The restoration of the tombs was possible because the sarcophagi were originally placed in recessed alcoves and reconstruction was based on stylistic differences (Rasmussen 1979, 5). Tomb robbing also had the effect of allowing further damage by natural causes. Once opened water could enter the tomb speeding pottery damage and the breakdown of metals, as well as the movement of tomb furniture as a result of flooding (Hirschland Ramage 1970, 19).


16 Judith Toms has also suggested that increased deposition of artefacts in later Villanovan tombs may be related to a change in social structure and the increased importance of conspicuous consumption (Toms 1993, 156)
utilitarian ware. Bucchero continued to be deposited in tombs but its significance and the associated context of the deposition may have changed (Gran-Aymerich 1993, 35-36).

When bucchero is found in a tomb it often formed part of a larger group of vessels that has been described as a “service”. The vessels are thought to correspond to those used for a banquet, in particular the service and drinking of wine (Gran-Aymerich 1993, 35). It has generally been assumed that the “services” were used as part of a funerary feast held at the tomb when the deceased was buried (Berkin 2004, 119). There was long tradition of a feast at the graveside dating back to early Villanovan contexts (Tuck 94, 617). It has been suggested that the Etruscans adopted the Greek symposium and that this is the Etruscan feast recorded in the paintings. Small, however, has argued that while Etruscans did adopt Greek customs, they only adopted certain elements and that the way they banqueted and drank wine differed from the classic Greek symposium (Small 1994, 89). An alternate suggestion for the presence of “services” is that they were provided for the deceased to use for their journey to the afterlife (Krauskopf 2006, 78).

The relationship between ritual, particularly funerary use, and daily use of bucchero vessels found in funerary contexts is uncertain. Surface surveys from Cerveteri report that while most of the ceramics found comprised red-brown impasto, tableware was predominantly bucchero (Nijboer 1998, 146). The evidence from the few habitation sites published suggests that there is a close

17 Similarly grey bucchero, which was produced in a number of utilitarian shapes associated predominantly with eating, did not appear to be a prestigious product (Tamburini 2004, 189).
18 Nijboer has postulated that this change over time is characteristic of changes in the ceramic industry. Workshops were initially fostered by an ‘elite’ who wanted individual luxury vessels. Over time as populations grew, demand also grew. These workshops also manufactured subsistence goods with a corresponding change from small to large scale manufacture. Eventually the mass produced artefact became the predominant item manufactured (Nijboer 1998, 189). This change to mass production workshops may also have been associated with a change in the social status of the potter (Nijboer 1998, 195).
19 The service was not solely limited to bucchero and may also have included painted pottery and metal wares).
20 It is still uncertain exactly what vessels constituted an Etruscan “service” or in fact whether there was a standard (Berkin 2004, 120). For a discussion of the components of a wine service see Bouloumié 1986, 72-73.
22 Buccero plates are also commonly found as part of the tomb contents. While scenes depict drinking, food is often seen displayed on tables in the background (Small 1994, 86). It may also be that the exact nature of funerary feast held varied between regions. Findings from Castel di Decima suggest that following the funerary ceremony, the vases that contained the wine (amphorae and ollas), were broken after use and scattered over the body of the deceased (Rathje 1983, 20). For a full discussion of the findings and the implications from Castel di Decima see Zevi 1977. See Small 1994 for discussion of the relationship between the Greek symposium and Etruscan banquets.
relationship between bucchero found in funerary and habitation contexts. For example the archaeological evidence from a rubbish pit at Ficana (Rathje 1983, 19) and from the sealed deposit of the Lower Building at Murlo suggests that bucchero groups found in burial contexts had parallels with bucchero in daily use (Berkin 2004, 127). At Murlo however, in the habitation, there were no amphorae or jugs, which are frequently found in tombs. It may be that funerary ritual resulted in the deposition of different proportions of vessel types to those used on a daily basis (Berkin 2003, 127). Further archaeological evidence from habitation sites is required before the relationship between the two contexts can be established (Rasmussen 1979, 123).

Etruscan Burial Ritual

As mentioned earlier, much of the information about the civilisation of the Etruscans comes from tombs. Religion was central to the life of the Etruscans and the tombs not only give information about Etruscan material culture, they also give information about some of their ritual beliefs. The information from the tombs suggests that the afterlife was somehow linked to the mortal remains of the individual. What Etruscans believed about the fate of the individual following death is uncertain. The living may have guaranteed the well-being of the deceased in the hereafter by religious obligation at the funeral and by deposition

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23 Ficana is a site in Latium, but it is likely that banqueting customs were similar to those practices in Etruria (Berkin 2003, 125). The finds at Ficana included a number of ceramic vessels that comprised chalices, plates and holmoi that date to the second half of the seventh century. While there was no bucchero contained in the pit, a few pieces of high quality fine impasto that Rathje has compared to bucchero, were included. For a discussion of the finds and the context see Rathje 1983.

24 When the tombs of Poggio Aguzzo, which is a necropolis adjacent to Murlo, are published, the vessels at Murlo and those in a funerary context can be compared (Berkin 2003, 127 note 42).

25 Whether bucchero was used as a table ware at all periods is uncertain. It has been suggested that initially bucchero was produced as a funerary imitation of more expensive metal vases especially for the tomb and only in later periods was it more widely used (Brady 1977, 12).

26 The daily life of the Etruscans was guided by a “complex set of rules regulating relations between men and gods” called the Etrusca disciplina. This text is referred to in Roman writings but little is known of the teachings and what is known is limited by the fact that it comes from a first century Roman interpretation. The main limitation to understanding the nature of Etruscan religion and ritual is the lack of any original Etruscan literature (de Grummond 2006a, 1).

27 Determining ritual acts from archaeological remains leaves much to individual interpretation. While a society might have general patterns of ritual deposition, the exact meaning of individual grave offerings cannot necessarily be determined. The emotional relationship between the donor and the deceased that was behind the offering is not easily identifiable from the archaeological record (Krauskopf 2006, 66).

28 See Pallottini 1975 140–48 for discussion of Etruscan beliefs. See de Grummond 2006a for a discussion of history of scholarship on Etruscan religion, both recent and ancient. For a detailed series of articles that summarise current theories on aspects of Etruscan religion including funerary beliefs, Etruscan gods, religious inscriptions and votive offerings see de Grummond and Simon 2006.
of specific artefacts in the tomb (Pallotino 1974, 148–9). The artefacts placed in the tomb may have been there to recreate daily life or to assist the deceased to carry out certain tasks on their way to the afterlife (Krauskopf 2006, 78).

While inhumation was the predominant form of burial, cremation was still practised, particularly in the region of Chiusi. The simplest inhumation burial was a single trench tomb cut into the bedrock, covered by a stone slab, which was accompanied by minimal burial goods. This type of burial was found throughout all Etruscan periods (Barker and Rasmussen 2000, 234).

Inhumation burials were also interred in chamber tombs that often held a number of burials. Chamber tombs were used at Chiusi even though the deceased was cremated and the ashes placed in a cinerary urn (Barker and Rasmussen 2000, 238). At Tarquinia and also at other sites, such as Chiusi and Cortona, some of the chamber tombs had walls decorated with paintings. While earlier chamber tombs appear to have been randomly arranged in the cemetery, later tombs seem to follow a defined arrangement with streets in between such as those at Banditaccia at Cerveteri and Crocifisso del Tufo at Orvieto (Barker and Rasmussen 2000, 234).34

**Development of Bucchero**

Bucchero was first produced in Southern Etruria in the second quarter of the seventh century (Rasmussen 1979, 149). At this time the greatest numbers of fine pieces and the earliest shapes are represented at Cerveteri as are the unusual experimental vessels that quickly went out of production. It is highly

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29 Later Hellenistic contexts suggest that not only the destination, but also the journey itself, was of importance to the Etruscans. The presence of demons, such as Tuchulcha, shows that there were threats and dangers along the way. It may be that sacrifices were performed as part of the feast at the graveside to ensure the dead reached their goal (Krauskopf 2006, 68).
30 The funerary games may also have played a role in the journey of the deceased possibly allowing the return of the deceased to assist their descendents in some way or other (Krauskopf 2006, 78).
31 At Veii in the Orientalising period while inhumation was the dominant ritual, cremation burials continued but appear to have been limited to burials of high status males (Toms 1986, 60).
33 Since they were first discovered, much has been written about the painted tombs of Etruria and in particular of Tarquinia. For a brief overview and introduction see Naso 2005. Today many of the paintings at Tarquinia have faded and access to the tombs is limited. The paintings are viewed only behind glass and the effect of being in the tomb surrounded by the paintings is lost. In the 1930’s D. H. Lawrence travelled to Italy and his book *Etruscan Places* gives a detailed description of the tombs and the paintings and provides and interesting if slightly less scholarly view (Lawrence 1932).
34 The cemeteries at Cerveteri were used for a number of centuries. The ritual importance of space and its allocation probably meant that land was specifically allocated and organisation of land was probably have been centrally controlled (Oleson 1976, 217). See Oleson 1976 for a discussion of the town planning associated with various cemeteries around Etruria.
probable that bucchero was first produced at Cerveteri (Hirschland Ramage 1970, 2; Rasmussen 1980, 159).

Bucchero has many similarities with dark fine impasto pottery and it is from this native tradition that bucchero probably developed (Nijboer 1998, 56). There is a close relationship between production of fine impasto and bucchero with shapes and decoration overlapping between the two. Impasto kotyle 12 is an example of a shape that was produced in both bucchero and impasto. The earliest bucchero produced was very fine and distinctive and the standard of workmanship and the quality of the bucchero is never again as good (Rasmussen 1979, 159).

The development of the shapes produced in bucchero, however, appear to be the result of a variety of both local and foreign influences. Hirschland Ramage has pointed to the close relationship between the shapes of oriental imports, Protocorinthian ware and bucchero shapes. 35 She has suggested that foreign influence may have come via foreign craftsmen settling and setting up workshops in Etruria during the Orientalising period (Hirschland Ramage 1970, 5). 36 Rasmussen has argued that bucchero shapes evolved as a refinement of native shapes and techniques and that it is not until after the middle of the seventh century, that Protocorinthian influence becomes dominant. By this time the initial production of bucchero had already begun (Rasmussen 1979, 157).

Metallic vessels appear to have acted as prototypes for the development of a number of bucchero forms, in particular kyathoi, jugs, oinochoai, and goblets. 37 Early bucchero has thin walls, ridges, points and curves, which are all characteristic of metallic forms (Nijboer 1998, 57). It is uncertain whether shapes were copied directly in bucchero or whether the shapes were first copied in impasto and then later made in bucchero (Hirschland Ramage 1970, 11). 38 The footed bowl 36 has a ring collar that runs around the stem imitating a join on a metal chalice. The footed bowls 38 and 39 have a raised ridge where the bowl and stem meet mimicking a metallic join. Impasto chalice 15 has round protruding knobs around the rim that resemble metal studs. The decorative

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35 See section on shapes for further discussion of the development of individual shapes.
36 Finds of ivory dating to the early Orientalising period in Etruria suggest that oriental craftsmen may have been working there (Hirschland Ramage 1970, 5). Craftsmen could have come when the raw ivory was imported to Etruria. The carving technique of the early seventh century finds suggest that they were imported from or made locally by craftsmen from Assyria. Ivories became less oriental in character of over the course of the century suggesting a change to local craftsmen (Hirschland Ramage 1970, 5). See Williams 1986 for a discussion of immigrant potters. See also Nijboer 1998 for a discussion of workshops.
37 The distinction made between jugs and oinochoai follows Rasmussen’s typology. Oinochoai have a distinct spout while jugs have a round lip.
38 It was originally thought that there was a linear development between impasto and then bucchero. This has been shown not to be the case and there was a parallel development between the two types of ceramics. Bucchero eventually supplanted impasto fine wares but impasto continued to be used for everyday vessels such as dolii and cooking wares.
techniques of ribbing, incision and relief decoration frequently found on impasto and bucchero probably originated from metal models (Nijboer 1998, 57).

It has long been assumed that artistic developments were mainly limited to more expensive metal and ivory materials. The argument follows that bucchero and impasto provided cheaper local copies of these more expensive artefacts.\(^{39}\) Recently, however, it has been argued that this relationship between the different materials was more complex. While copying of metallic prototypes occurred, the imitations were produced in forms specific to ceramic production (Gran-Aymerich 1993, 21). The similarities between bucchero, metal and ivory artefacts suggest a close relationship between potters and other craftsmen (Nijboer 1998, 57). Rather than individual artisans working in one medium, multiple artisans probably worked in communal workshops where an exchange of ideas could take place.\(^{40}\) The evidence from the large workshops at Murlo has suggested that creative ideas developed concurrently between craftsmen working in different materials, with shapes and designs transferring between metal, ivory and pottery rather than just from metal and ivory to pottery (Berkin 2003, 4).\(^{41}\) The bucchero found in the early Etruscan tomb, the Tomba Calabresi, was innovative and of high quality (Sciacca, 2004, 39) and the bucchero produced at Murlo was highly crafted and richly decorated (Berkin 2003, 4).\(^{42}\) While the contexts at these sites are different, they both suggest that rather than simply acting as an imitation of metallic vessels, bucchero was a prestige product in its own right (Berkin 2003, 4; Sciacca 2004, 39).

Gran-Aymerich has noted that there is an apparent ongoing tradition of black vases in the Etruscan burial ritual dating to Villanovan periods (Gran-Aymerich 1993, 35). It has also been suggested that this tradition of black vases is continued in later periods between the fourth and second centuries by the black vernice nera ceramics (Burkhardt 1991, 136). If black pottery did have a special ritual significance, it could lend weight to the argument that bucchero was not produced to be a cheaper imitation of more expensive artefacts.

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\(^{40}\) Studies of Etruscan spiky glass vessels that are dated to later periods have suggested a close working relationship between potters and glass makers (Williams 1986, 299).

\(^{41}\) It has been suggested that workshops were either monofunctional, where an artisan produced high quality products on a small scale, or polyfunctional, where a number of artisans worked together in a workshop, possibly working on more than one material (Nijboer 1998, 7). Murlo would fit into the latter category as it had a large workshop complex where metal, ivory and ceramics were produced (Berkin 2003, 4). See Bonghi Jovino 1990 and Nijboer 1998 for studies regarding the possible operation of workshops and the economic systems that may have been associated with them.

\(^{42}\) See Berkin 2003 for discussion of interactions between artisans in workshops at Poggio Civitate and the finds there. Also see Gran-Aymerich 1995 for a fuller discussion of this interrelationship between different materials.
Bucchero Fabric

Two main types of bucchero have been identified. These are black bucchero, which comprises the majority of bucchero artefacts found, and grey bucchero. Apart from the early periods, bucchero was manufactured using standardised production techniques that resulted in a finished product that had a very dissimilar fabric, despite the fact that the clay sources used were highly variable (Gran-Aymerich 1993, 26).

Early bucchero is the highest quality. The clay is very fine and well levigated and the walls have a thickness of one to two millimetres (often described as "egg shell thickness") and a very high sheen (Rasmussen 1979, 2). This very fine bucchero was not manufactured for a long period. From the second half of seventh century bucchero became thicker walled. The clay is fine and well levigated, fairly soft and porous and has walls with an average thickness of two to four millimetres and while it was burnished, it rarely has the very high sheen of the earlier ceramics (Gran-Aymerich 1993, 26). The deep black colour changed to grey-black and lighter shades of grey. This latter bucchero represents the majority of the black bucchero that was manufactured from second half of seventh century to the first half of the sixth century (Gran-Aymerich 1993, 26).

A thicker bucchero with moulded relief decoration was manufactured in the sixth century in Central and Northern Etruria. The clay is very fine, deep black, porous, soft and fragile and the walls have an average thickness of three to four millimetres (Gran-Aymerich 1993, 26). The surface finish tends to be dull and the forms were mainly limited to closed shapes such as oinochoai and amphorae. The main feature of this type of bucchero is distinctive moulded relief decoration (Gran-Aymerich 1993, 26).

Grey bucchero first appeared in the first half of the sixth century and its manufacture continued until bucchero production finally ceased in the fourth century (Gran-Aymerich 1993, 26). The surface was light grey with a darker core (Rasmussen 1979, 3). The clay is of moderate quality, fairly well levigated with numerous inclusions and the surface, while very fine, is not highly burnished

43 The term red bucchero is known, but it is no longer in general use. It was used to describe the large red impasto vessels of Cerveteri that have stamped and cylinder seal decoration (Gran-Aymerich 1993, 27). This type of ware has been discussed above.
44 This type of bucchero is often referred to in the literature as bucchero sottile.
45 This later type of bucchero has been variously designated in the literature as transitional, ordinary and normale bucchero.
46 While the tone of black or grey cannot be used as a strict dating tool, in general dark black production was a feature of seventh and sixth centuries (Gran-Aymerich 1993, 26).
47 In the literature this type of bucchero is often referred to as bucchero pesante.
48 Grey bucchero has at times been confused with black bucchero that has been eroded or weathered or where the vessel has interacted chemically with the surrounding soil resulting in a lighter fabric (Rasmussen 1979, 3).
The vessel walls have a thickness of three to four millimetres. Grey bucchero, which is stronger and more impermeable than traditional bucchero, breaks cleanly to give a sharp edge, suggesting a different production technique (Gran-Aymerich 1993, 27). Archaeometric studies of grey bucchero from Orvieto have shown that it had been fired in a kiln at a high temperature that resulted in the particles of clay sintering and the fabric more closely resembles modern day earthenware than bucchero (Burkhardt 1991, 129). The shapes correspond to those of black bucchero, but there was less diversity, open vessels for domestic use such as plates, cups and bowls being the main shapes manufactured (Gran-Aymerich 1993, 27). Grey bucchero was mainly produced in Central Etruria particularly Orvieto and Chiusi, although occasional finds have been made in Southern Etruria (Gran-Aymerich 1993, 27).

Production Technique

Bucchero pottery was manufactured using a fast wheel. It was fired in a reducing atmosphere to obtain both a black surface and core (Cuomo di Caprio 1993, 217). The temperature required to fire bucchero ranged between 880° and 920° with a controlled cooling to 600° centigrade. Controlled cooling prevented reintroduction of oxygen, which would have interfered with the complete blackening of the vessels (Cottier-Angeli 1991, 293).

49 The surface was burnished enough to achieve impermeability but not enough to achieve a high sheen (Tamburini 2004, 189).

50 Grey bucchero also has a transitional and pesante developmental phases. Transitional grey bucchero is more fragile than grey bucchero and the grey bucchero pesante has a highly variable surface colour (Gran-Aymerich 1993, 26-27).

51 It is uncertain whether grey bucchero found in Southern Etruria was produced there or imported from Central Etruria. See Tamburini 1985 for a discussion of grey bucchero from Todi in the Museo Civico Etrusco-Romana di Todi dating to the 6th to 5th centuries and the relationship between these finds and Orvieto.

52 It can be very difficult to determine the difference between vessels constructed using the coiling method and finished on a hand wheel and wheel thrown vessels (Nijboer 1998, 64). Of the 350 pieces of bucchero studied by Burkhardt all were completely wheel made although in the case of large closed shapes such as amphorae the neck was separately made and later attached to the body as were feet and handles (Burkhardt 1991, 113). Larger vessels may also have been assembled by hand from a number of smaller pieces that had been made using the wheel (Dohan 1942, 4). It has also been suggested that potters prepared a variety of parts such as feet, handles and mouths separately and added them to the basic body of the vessel as required (Del Chiaro 1966, 99).

53 A normal kiln alternates between both oxidization and reduction phases during firing but the stoker can control the degree and length of each cycle by adjusting air flow and fuel resources (Nijboer 1998, 75).

54 This is the ideal temperature for the firing of bucchero. Whether artisans could control the temperature so closely is uncertain. It has been noted that the bucchero at Veii and Pyrgi was fired at less than 750°C (Bruni et al. 2001, 37). As kiln technology improved the ability to control temperature probably also improved (Nijboer 1998, 75).

55 Modern ceramicists have found that the surface shine will disappear if the temperature goes over 950°. If the temperature is too low the final ceramic will be soft and fragile (Phillips 1990,
refired in an oxidizing atmosphere the pottery will turn red in colour (Cottier-Angeli 1991, 293). Sometimes bucchero will vary in surface colour from red/brown to black as a result of misfiring or incomplete reduction. See for example oinochoe 32. Unevenness of firing is commonly found on vessels manufactured in the second half of the sixth century at Orvieto and Chiusi (Tamburini 2004, 189).

The large mass production of bucchero and its uniformity suggest that bucchero was generally fired in kilns (Nijboer 1998, 65). A two-chambered kiln with fuel in the lower chamber and the pottery in the upper, separated by some type of grill, was probably used. Such kilns allow good control of the firing conditions (Nijboer 1998, 79). Only a few kilns have been found in the archaeological record that date to the Etruscan period. Kilns at four sites have been directly associated with bucchero production: two kilns have been found in the region of Florence, at San Piero a Sieve (I Monti), dating between the seventh and sixth centuries; five vertical kilns have been found in the region of Siena at Quartia, Colle Val D’Elsa dating between the seventh and fifth centuries; a circular kiln was excavated in the Caserta region at Montecastello, Pontelatone dating from sixth to fifth centuries and at Pisa (via T. Vanni) a kiln has been reported demonstrating wasters of bucchero and impasto but details of the kiln structure have yet to be published (Acconcia 2004a, 135). The kiln at San Piero a Sieve (loc. I Monti) has been denoted an open kiln but the structure and associated finds are highly suggestive of a double chambered kiln, as are the vertical kilns of Quartia and Montecastello. The structure of the kiln at Pisa is uncertain (Acconcia 2004b, 285).

The manufacture of bucchero required a clay rich in natural iron oxide to produce the characteristic black colour (Cottier-Angeli 1991, 293). The black colour of bucchero is however, due not only to reduction of iron oxides as in Greek black-glazed pottery, but is also due to the combustion of carbon and manganese dioxide as bucchero has both carbon and magnetite in the finished product (Acconcia 2004a, 134). How these arrived in the clay is a matter of intense

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64). If grey bucchero was fired at a higher temperature as suggested, this could account for the lower surface sheen. There have been no studies to date that have tested this hypothesis.

56 A number of kilns have been found at Satricum, Lavinium, Marzabotto, Laventina-Aqua Acetossa, but none can be securely associated with bucchero production. A sanctuary excavated in 1913 at Cerveteri has been now been re-interpreted as a kiln. Workshops at Murlo and Aquarossa are highly suggestive of bucchero production, but to date no kilns have been identified there. See Nijboer 1998 79–129 for a discussion of the archaeological sites, the associations of the kilns and the overall contexts of each of the kilns.

57 The three kilns found at Satricum were associated with impasto and terracotta but no wasters of bucchero have been found although Satricum has been identified as a production site for bucchero by Gran-Aymerich. Nijboer has suggested that if bucchero was produced there, it would have been on a small scale as part of a multi-purpose workshop (Nijboer 1998, 82–3). See also Acconcia 2004b, 285–7.

58 For a discussion of the clay used, its preparation and the use of the potter’s wheel see Nijboer 1998, 85–103.

59 The magnetite is a result of the breakdown of the manganese dioxide in the kiln.
scholarly debate that has continued through much of the last century. A number of suggestions include painting the surface of the vessels with substances such as ochre or resins, addition of manganese and addition of carbonaceous material to the clay have been made (Acconcia 2004a, 134). It has been demonstrated, however, that magnetite and carbon can enter the clay via the firing process (Nijboer 1998, 56). If carbonaceous material is burned in the kiln with the fuel, carbon is absorbed by the clay. Some of the suggestions for the types of material with high carbon content that could be burned include wood or organic matter such as horns, hooves or animal hides (Rasmussen 1979, 2; Cottier-Angeli 1991, 293). Burkhardt has suggested that the black colour of bucchero was achieved when charcoal replaced wood as a fuel for the kiln, thereby increasing the amount of carbon available in the kiln. The correct temperature was required to set the carbon in the pottery (Burkhardt 1991, 121–4). Cuomo di Caprio suggests that control of the atmospheric conditions inside the kiln is difficult and that the required levels of magnetite would not necessarily be produced. She has proposed that unfired pottery was placed in a container filled with sawdust (a ready source of carbon). The tightly sealed container was then fired in a kiln resulting in a strong reducing atmosphere inside the container. Experimental reproductions of this technique resulted in a deep black coloured vessel that was very similar in appearance to bucchero (Cuomo di Caprio 1993, 220–1). Each of the proposed firing techniques has both supporters and detractors and none of the theories proposed is universally accepted. Further archaeometric studies and recreation experiments are required before a determination of the technique used can be made.

Much of the pottery produced around regions of the Mediterranean was decorated by the use of a slip. Many of the bucchero vessels found in the

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60 Cuomo di Caprio rejected all of these theories. See Cuomo di Caprio 1993, 218–20 for discussion of the different theories and reasons for rejection.

61 Interestingly modern potters who produce black burnished pottery using the techniques of Native American tribes of New Mexico create the black effect without using a kiln but by using a bonfire to create a starved-reduction blackware manure firing. In this firing process the bonfire is smothered with crushed manure and sand, and the wares all turn black, often with subtle shades of brown and tan. The resulting earthenware vary in tones of black from deep black to tones of grey depending upon the level of burnishing (McDowell 2006).

62 Burkhardt has suggested that the difference between the colour of impasto and bucchero was a direct result of the fuel used and that wood would have been used for firing impasto (Burkhardt 1991, 124–5).

63 The archaeometric studies on the clay are however inconclusive particularly with relation to the amount of carbon present (Acconcia 2004a, 134). Placing artefacts in a sealed container filled with carbon is also used for the decoration of metal using the granulation technique. The close association between metal wares and bucchero supports the proposal for a related production technique (Nijboer 1998, 57).

64 A slip is a refined clay solution that is applied onto a vessel before it is fired. Clay is refined by mixing it with water, removing larger particles thereby leaving a solution of the finest particles (Phillips 1990, 25). When clay dries and fires it shrinks. The rate of shrinkage is variable between clays and is dependent upon clay type. If the clay of the vessel and that of the slip are not the same the slip on the finished vessel could flake off (Phillips 1990, 25).
earliest burials have a particularly high sheen, and were probably coated with a thin type of organic wash or purified clay slip.\[65\] These very early pieces were produced at a time of great variability in bucchero production, when techniques were in the process of being standardised and the use of a slip did not continue for long (Rasmussen 1979, 2). Some grey bucchero pieces from Orvieto were also found to have a slip layer (Burkhardt 1991, 129).\[66\] The grey bucchero footed bowl 36 has such a slip.

Most bucchero, however, was not decorated with a slip, but was burnished. Burnishing is a process that involves using a rounded tool, such as a stone (in recent times the back of a spoon) to polish the surface of the vessel, with small rotary or linear movements, when the vessel is past the leather hard stage but not completely dry (Phillips 1990, 62).\[67\] Linear burnishing is evident on all the examples in the museum collection. Burnishing has the effect of sealing the surface pores giving the vessel greater impermeability and increased density (Cottier-Angeli 1991, 293). The colour also darkens as the shine improves (Phillips 1990, 63).\[68\] Bucchero and fine impasto may have been burnished a number of times as the vessel was drying, with a possible final polish using leather (Nijboer 1998, 65). Burnishing leaves only a film of finer particles of clay on the surface of the vessel, which, on occasion, gives the overall impression of a slip. Occasionally there is a cracking of this film evident on vessels, suggesting an added slip. However, this is the result of the finer surface particles pulling away from the underlying fabric because of greater shrinkage of the finer clay (Dohan 1942, 4).\[69\]

Decoration was applied at different stages of drying depending upon the type of technique used. For example incision was applied at the leather hard stage or when the vessel was almost dry. For stamping, the clay needs to be softer to prevent damage to the vessel (Phillips, 1990, 61).

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\[65\] This slip may have been a purified iron oxide (Cottier-Angeli 1991, 294).
\[66\] The study of 72 samples was divided into 2 main groups. The grey bucchero only was found to have a slip. The other group comprised fairly fine black bucchero that was not burnished. For a full discussion of the finds at Orvieto see Burkhardt 1991, 64-80.
\[67\] To date no burnishing tools have been identified in the archaeological record. This is not necessarily surprising as single rounded stones and similar types of tools could easily be overlooked during the excavation period. It is generally assumed that they were made of stone, bone or metal (Cottier-Angeli 1991, 293). Other suggestions include wood or leather (De Puma 1986, 8).
\[68\] The tones of the final colour of the bucchero are changed because the finer clay particles have greater reflective properties and more colour (Dohan 1942, 4).
\[69\] Alternate bands of burnishing have been used as a decorative technique (stralucido). It was used, for example, on the raised feet of amphorae that date to late sixth century. The overall effect is quite haphazard (Gran-Aymerich 1993, 30). This effect can be seen on museum amphora 35 and on plates 73, 74 and 75.
Shapes

Bucchero shapes include drinking vessels (chalices, kotylai, kantharoi, kyathoi, cups, beakers and goblets) amphorae, oinochoai, olpai, jugs, plates, bowls, miniature bowls, small stemmed bowls, pigmy bowls and thymiateria. Certain shapes demonstrate a regular evolution from native traditions while other shapes developed under the influence of imported models or adapted elements of other shapes (Gran-Aymerich 1993, 33).

One of the earliest bucchero shapes produced was the kotyle, which seems to have been a direct copy of the Protocorinthian version. Rasmussen’s type b is particularly similar to Protocorinthian kotylai of the same date, especially those by the Hound Painter (Rasmussen 1979, 93). The incision decoration on many of these early vessels, including 12 (impasto), mimics the decorative schemes on the Protocorinthian models with incised rays and panels of decoration (Hirschland Ramage 1970, 22). While this shape also appears in metal it is likely that the metal shapes developed in parallel to the bucchero shape (Rasmussen 1979, 92).

Corinthian prototypes were most likely the inspiration for the bucchero olpe, which first appeared in the middle of the seventh century in Etruria (Rasmussen 1979, 88).70 Imported Protocorinthian, Cypriot and Phoenician ceramic and metal oinochoai, such as the silver oinochoe found in the Regolini-Galassi tomb at Cerveteri, appear to have acted as models for the earliest bucchero oinochoai (Rasmussen 1979, 75–6; Hirschland Ramage 1970, 32). Protocorinthian and Ionian cups seem to have acted as models for the bucchero cup (Rasmussen 1979, 116). Both bucchero oinochoai and cups were highly variable and single examples were not uncommon; Rasmussen had nine main categories for the oinochoe and five for the cup with a number of subcategories.71

The majority of the vessel shapes produced in bucchero developed from indigenous traditions that included both metallic and ceramic vessels. These include the amphora, single handled jug, chalice, kyathos and kantharos. The amphora developed from the spiral amphora and its continued development ultimately led to the Nikosthenic amphora shape that was an important Attic shape.72 The kyathos and kantharos were also copied in Attic pottery (Hirschland Ramage 1970, 26; Nijboer 1998, 55).73 Rasmussen has listed five basic

70 This shape is very common in Etrusco-Corinthian pottery (Rasmussen 1979, 88).
71 Rasmussen’s oinochoe type 1 exists in a single example. See Rasmussen 1979, 76–88 for oinochoe typology and 116–22 for cup typology.
72 See Verzár 1973 for discussion of the development from spiral amphora to Nikosthenic amphora.
73 A bucchero kyathos type from Vulci was the probably the prototype for the production of the Attic kyathos, which first appeared in the Nikosthenes workshop around 530–520 (Nijboer 1998, 55). See Brijder 1988 for discussion of the development of Attic kantharos from Etruscan prototypes.
typological forms of kantharos and the most common Etruscan artefact found outside of Etruria is the kantharos Rasmussen type 3e (Rasmussen 1979, 150).

The chalice shape is indigenous in Etruria and the carinated bowl with a tall lip is the most enduring shape in Etruria. This shape forms the basic features of the kyathos, kantharos and all types of chalice (Rasmussen 1979, 96). A rare early type of bucchero chalice (dated to the third quarter of the seventh century) was made of two pieces that were joined on the stem with one section fitting into the other. There were two metal rings at the join of the two halves, suggesting that this type was copying a metallic prototype (Brady 1970, 19; Hirschland Ramage 1970, 25–6; Rasmussen 1979, 97). The two piece chalice was soon replaced by a single piece and the two rings were later replaced by a single collar ring on the stem and eventually the collar rings disappeared (Brady 1970, 23). This chalice type (Rasmussen type 2c) is dated from the end of the third quarter to the beginning of the final quarter of the seventh century (Rasmussen 1979, 98). Rasmussen type 2d chalice that appeared in the last quarter of the seventh century and is one of the most common shapes produced in bucchero (Rasmussen 1979, 98). 22 is an example of Rasmussen Type 3a chalice, a type that was also very widespread. It is the same shape as type 2d, except it has a short flaring foot.

Caryatid chalices (which were produced at the end of the seventh to middle of second quarter of the sixth century) however, appear to have been the result of a combination of indigenous and Near Eastern artistic influence. Caryatids as vessel supports are found in stone and pottery in Greek contexts but the bucchero caryatid chalice has the closest parallels with Near Eastern ivory caryatid chalices such as that found in the Barberini tomb (Hirschland Ramage 1970, 26).

Large numbers of utilitarian shapes such as bowls and plates were manufactured in the sixth century. While found in all regions, they tend to be more a feature of Northern and Central Etruria (Rasmussen 1979, 123). In particular the footed bowl was a widespread shape. Rasmussen’s typology was limited to early bucchero and as these vessel types were a feature of later production, Rasmussen only listed a few examples of the plate, stemmed bowl, goblet and miniature vessels (Rasmussen 1979, 123). Tamburini has presented a comprehensive typology of bucchero manufactured at Orvieto that includes these utilitarian shapes (Tamburini 2004). He listed 23 different types of stemmed bowl which are subdivided into carinated cups and rounded cups, 18 chalice types, 7

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74 At Satricum the funerary evidence suggests that bucchero kantharoi were accessible to all individuals but those shapes associated with pouring wine, such as jugs and oinochoai, were limited to individuals of rank (Ginge 1996, 501).
75 Similar features are seen on ivory vessels and it has been suggested that both bucchero and ivory were imitating unknown metal prototypes (Hirschland Ramage 1970, 26).
76 See Cristofani and Zevi 1965 for a partial classification of caryatid chalices. See also Brady 1970, 50–2.
plate categories and six types of thymiaterion. Manufacture of this latter shape appears to be mainly centred in Central Etruria. Many of these thymiateria, such as 61 and 11 (impasto), have a second central bowl where essences of some type may have been burned (Tamburini 2004, 212).  

Development of production of bucchero in regional centres outside of Southern Etruria, appears to have been influenced by the shapes manufactured in Southern Etruria. Many of Tamburini’s early shapes of vessels produced at Orvieto have parallels with Rasmussen’s typology (Tamburini 2004, 206–15). The distinctive bucchero produced in Campania developed following the importation of bucchero from Southern Etruria into Campania around 630 and soon after that a local production of bucchero began (Rasmussen 1986, 273). The oinochoai produced in Campania were distinctive. Many have a distinctive straight neck on the side where the handle attaches. The fabric was heavy and the oinochoai were generally large and undecorated, such as 32 (Rasmussen 1986, 273).

Decoration

Many of the decorative techniques used on bucchero are similar to those on impasto and it is likely that these were based on design techniques used on metal. Whether the influence was directly from metal vessels or indirectly via impasto is uncertain (Rasmussen 1979, 128). Decoration was generally non figurative and consisted mainly of incised geometric designs as on impasto. Figurative scenes, when found, depicted human, animal and mythical figures typical of the Orientalising period and appear to be non-narrative (Gran-Aymerich 1993, 28). The decoration and the techniques used on earlier vessels were, in general, much finer with placement of decoration appropriate to the shape and size of the vessel. The earliest decorated pieces had a detailed combination of geometric and figurative motifs that covered most of the vessel (Hirschland 1977).

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77 While thymiateria are vessels used to burn incense and oil, the exact use of these ceramic vessels called thymiateria, is uncertain. There is no apparent evidence of burning or scorching of the central bowls and while these may have been removed during washing of the finds, the total absence of any commentary with regard to this suggests that this was not their intended use and point to an alternate use. They may be a fruit bowl or the central bowl may have held a particular condiment that was eaten with other food placed on the plate. See Tamburini 2004, 188–9 for discussion of shape development and 190-216 for a typology of bucchero shapes at Orvieto.

78 The decorative schemes on bucchero developed from the earlier decorative schemes of Villanovan pottery and these schemes may have had a cultural significance that today is difficult to determine (Gran-Aymerich 1993, 32).

79 As the Etruscans did not leave any long texts it is difficult to determine whether or not some of the scenes represented related to specific native mythology. It is only possible to identify these stories on later black and red figure vessels and bronze mirrors where scenes derived from Greek mythology appear, particularly when figures are identified by inscriptions. Mythological scenes with an identifiable single individual are rare on bucchero (Gran-Aymerich 1993, 31). Cylinder stamped decoration with human figures occurs on sixth century bucchero from Central Etruria. See Scalia 1968 for discussion.
Between the second half of the seventh century and the second half of the sixth century decorative schemes became standardised and were generally limited to parts of the vessel, often the upper part of the vessel or on the outer side of the handles. By the end of the sixth century bucchero was in general, simply burnished with no added decoration (Gran-Aymerich 1993, 28).

The most frequently used decorative technique was incision and it appears on all bucchero shapes (Gran-Aymerich 1993, 29). The designs were incised onto the leather hard clay using a sharp edged tool such as a stylus, knife edge or some type of specific tool, after it was burnished (Cottier-Angeli 1991, 293). A comb or comb-like object with a number of projections was sometimes used to create multiple lines or vertical striations like those seen on amphora 35 (De Puma 1986, 8). Single or multiple straight lines (incised or as deep grooves) were most commonly used both as a simple decoration as on 27, where a single incised line runs below and parallel to the lip. On the chalice three incised lines running around the body, as on 22, is the most common form of decoration (Brady 1970, 27). Incised lines were also used to frame other motifs as on amphora 35 and chalice 53. Multiple lines were occasionally used to create designs such as the zig-zags and chevrons (“W”) as seen on impasto spiral amphora 17 (a form also found in bucchero) although they were more of a feature of earlier Villanovan impasto pottery (Gran-Aymerich 1993, 31). Incised lines also take the form of edging lines as on the handles of 35. Incised rays initiating from the base of the vessel imitating Protocorinthian decoration are seen on earlier vessels, as on the impasto vessel 12 (a form also found in bucchero) (Rasmussen 1979, 132). Whether incised decoration was highlighted by the use of white or red additives, as was the case for some impasto, is uncertain, but unlikely for the majority of bucchero vessels (Rasmussen 1979, 131).

Rouletting was a technique that used dotted lines to create a design. This technique was found on Villanovan impasto and on Orientalising metal vessels (Rasmussen 1979, 130). The dotted lines were probably created using a small toothed wheel to make short diagonal lines or straight lines running around the vessel (Hirschland Ramage 1970, 16). In some early examples rouletted lines ran around a vessel in a similar manner to the single incised lines.

Dotted lines were also applied by the use of a straight tool (or comb) with a number of teeth. Some tools had a double row of teeth (Regter 2001, 14). The comb was repeatedly pressed into the clay to create a pattern (Regter 2001, 13).

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80 See for example bucchero from the Tomba Calabresi in Sciacca 2004, See also Hirschland Ramage 1970, 12.
81 Brady has suggested that the three lines, as well as being decorative, create an irregular surface that improved the grip and reduced breakages (Brady 1970, 28).
82 The distinction between incised lines and deeper grooves was used by Rasmussen to differentiate between certain vessel typologies such as kotyle type d (Rasmussen 1979, 129).
83 See for example Hirschland Ramage 1970, pl. 2 & 3
The most common motif created using this type of decoration was the fan motif. The comb was pulled up while it was gradually rotated in an arc and the two halves of the open fan would have been worked out from a central point (Regter 2001, 14). Fans were applied to the clay at the leather hard stage following burnishing (Rasmussen 1979, 130). A few examples of metal artefacts, especially silver, with fans have been found. While these vessels do not predate the ceramic examples, Rasmussen has suggested that the fan motif was an artistic development initially developed in metal (Rasmussen 1979, 130). Regter, however, has suggested that the fan motif developed gradually and was inspired by a combination of the six petalled rosette stamp and short rouletted lines that have been found in combination on some early bucchero vessels (Regter 2001, 44). Fans were depicted either as open or closed. Open fans are usually upright, as on 12. Closed fans are placed vertically or horizontally, both seen on 26. If horizontal they predominantly face right as they do on 26. Fans occur mainly in the seventh century although a limited production continued until the middle of the sixth century (Rasmussen 1979, 131).

Ribbed decoration is mostly found on carinated bucchero shapes, in particular on the bowls of chalices, kantharoi and kyathoi (Rasmussen 1979, 129). This technique was widely used on metallic vessels found in Orientalising tombs in Etruria, and they probably provided the inspiration for this type of decoration on bucchero. Unlike metal vessels the inside of a bucchero bowl was not necessarily fluted and was often smooth (Rasmussen 1979, 129). An alternate source of inspiration may have been ivory chalices with ribbed decoration that were also found in early tombs at Cerveteri (Rasmussen 1979, 129; Brady 1970, 17). Ribbed decoration may have come to bucchero via impasto as ribbing is a feature of late impasto vessels, such as 4. It is found on the earliest bucchero and continued until the last quarter of the seventh century (Rasmussen 1979, 129).

Notching, which may have been inspired by the appearance of the edges of ribbed designs, is seen on carinated vessels and continues until the second half of the sixth century (Brady 1970, 16). The most careful notches were deeply cut

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84 Some rare early examples of fans were executed using rouletting (Rasmussen 1979, 130).
85 The vertical and horizontal fans were both produced in the same fashion. They were positioned onto the vessel in a vertical position. When the fans appear horizontally the bowl was turned onto its side before the decoration was applied (Regter 2001, 24).
86 Fan patterns were generally applied from left to right. When there was insufficient space on the vessel to complete a row of open fans, a closed fan was fitted into the remaining space. This closed fan is usually found immediately before the handle on the right side as can be seen on 12 (Hirschland Ramage 1970, 17).
87 A study of the fan decoration on vessels from Cerveteri and Veii has identified five individual hands responsible for the application of this decoration onto bucchero pottery (Regter 1995, 107).
88 Examples of vessels without carination and with shallow, fine ribbing have occasionally been found (Rasmussen 1979, 129).
89 The metal was hammered to create the external ribbed decoration with corresponding interior fluting (Rasmussen 1979, 129).
and diamond shaped such as on 22, but over time the design became less careful and diamond notches became lightly grooved arches as on 23, hooks, minuscule diamonds or diagonal nicks as on 24 (Rasmussen 1979, 129).

Incised figured decoration is a decorative technique that appears on bucchero from the second quarter of the seventh century until the second quarter of the sixth century (Rasmussen 1979, 133).90 The design was “drawn” onto the vessel, probably with a type of stylus. The scenes were usually enclosed by horizontal incised lines or grooves, rouletted lines or raised mouldings (Rasmussen 1979, 134). On many of the examples, the designs appear to be poorly drawn (Bonamici 1970, no. 67, pl. 30) and the bodies are often elongated (Bonamici 1970, nos. 42 & 43, pl. 21).91 Individual animals were often incised on spiral amphorae above the central motif.92 Longer figured scenes usually comprised a frieze of animals running around the vessel (such as on the shoulder of 35). There may have been a close relationship between the Castellani Painter of Etrusco-Corinthian polychrome ware and bucchero incised friezes produced in the last quarter of the seventh century (Bonamici 1974, 106–7). The Etruscan polychrome vessels from Monte Abatone have painted bands of colour with figured motifs incised in the plain bands of colour creating an overall effect that is very similar to the incised figured decoration on bucchero (Simon 2000, 177).

Incised figured decoration on bucchero was first developed at Cerveteri, which continued to be the main production centre, although it was also used to decorate vessels manufactured at Veii (Bonamici 1970, 193–4). Those found at Tarquinia and Vulci were probably produced at either Veii or Cerveteri (Rasmussen 1979, 136).93

Stamping using both single stamps and cylinder seals was another decorative technique applied to bucchero. The most frequently found single stamp ornament were quartered and large dot rosettes, the oblique ‘S’ and guilloches (Rasmussen 1979, 138). The stamp was always repeated a number of times on the same pot, often forming a single horizontal row. Single stamps are more commonly found on impasto vessels but were used on bucchero before standardisation of decorative patterns occurred (Rasmussen 1979, 138). Single stamps are a feature of regional bucchero production around Vetulonia (Gran-Aymerich 1993, 29). Rosettes and circle stamps can be seen on impasto oinochoe 18. Single stamps have been found most frequently on bucchero vessels that date to the third quarter of the seventh century and they ceased to be used by the end of the century (Rasmussen 1979, 138).

90 This incised decoration is variously referred to as graffito or sgraffito decoration. The total number of vessels with this decoration is limited but they were produced over a long period. Bonamici 1974 catalogued 112 examples of this decoration on bucchero.
91 Elongated figures are a feature of incised figures appearing on Faliscan and Capenate impasto (Rasmussen134).
92 An incised bird can be seen on the impasto spiral amphora in the collection 17. See Chapter 2 for discussion of impasto spiral amphorae and the motifs used.
93 See Bonamici 1974, 87–176 for a discussion of regional manufacture.
Cylinder seals were used to create stamped decoration on bucchero by rolling the cylinder on the leather hard, burnished bucchero vessel. The cylinder stamp was rolled over the vessel to form a frieze that encircled the vessel, as on 53, on flat handles and on the flattened lip of the thymiaterion as on 62.\textsuperscript{94} The finish and designs used on bucchero suggest a relationship between metallic and bucchero vessels, particularly as some finds from Orvieto appear to have had an overlay of precious metal (Camporeale 1972b, 12). Cylinder stamped decoration was a feature of the production of Chiusi, Orvieto and Tarquinia.

Vessels from Chiusi often have friezes that depict scenes with human figures and, more rarely, animals. The stamped decoration is quite shallow (Camporeale 1972b, 13).\textsuperscript{95} Over fifty different cylinders depicting human figures have been associated with Chiusi (Scalia, 1968, 401).\textsuperscript{96} The production from Orvieto appears to have been independent of that at Chiusi and in general the vessels have a uniformity in colour and sheen (Camporeale 1972b, 15). Camporeale identified 43 different cylinder seals from Orvieto and divided them into 4 categories: animal friezes, animal and human friezes, human figures with monsters and decorative (geometric) motifs (Camporeale 1972b, 19–103). Occasionally both figured and geometric friezes were combined on one vessel. Orvietan cylinder stamped ware has low and flat reliefs that are clearly defined on the body of the vessel, the frieze is framed, the location of the frieze is limited to specific regions of the vessel and there is a uniform orientation of the animals in the friezes (Camporeale 1972b, 108). Cylinder stamped ware from Orvieto has also been found in Central Etruria, Tarquinia and Vulci (Camporeale 1972b, 120). Orvietan production is dated from end of the seventh century to the last decades of the sixth century. Thymiaterion 62 and chalice 53 both have a decorative tongue motif. The tongue motif was widely executed and distributed and the time frame for this motif is wider than for other motifs (Camporeale 1972b, 107).\textsuperscript{97}

Cylinder stamped bucchero was produced at Tarquinia during the first half of the sixth century. The decoration appeared only on Rasmussen type 2e chalices (Rasmussen 1979, 141). While numerous vessels with this decoration have been found at Tarquinia, only nine friezes have been identified, suggesting that they may all have been produced in the same workshop (Camporeale 1972a, 115–116).

\textsuperscript{94} For a full discussion of the technique of using cylinder seals see chapter 3 on Caeretan impasto. While no cylinder seals have yet been identified from archaeological sites it has been suggested that seals could have been made from stone, wood or terracotta. Archaeometric studies have concluded that stamps used on Orvietan friezes could not have been made of terracotta but could not determine if stone or wood was used. Cylinder stamped ware from Chiusi has less defined characteristics and terracotta or clay seals cannot be excluded (Camporeale 1970, 108-109). It has been suggested that a bronze die from Murlo was used as a single stamp for pottery although it was initially thought to be an ornament for furniture (Phillips 1994, 37).

\textsuperscript{95} In some examples the figures are difficult to identify as the relief is too shallow (Camporeale 1970, 13).

\textsuperscript{96} Scalia 1968 for discussion and catalogue of cylinder stamps with human decoration produced at Chiusi.

\textsuperscript{97} Camporeale 1972b for a catalogue and discussion of cylinder seals from Orvieto.
Manufacture of cylinder stamped bucchero began later at Tarquinia and ceased earlier than at either Chiusi or Orvieto. Camporeale has suggested that a master from either centre, probably Orvieto, was responsible for production at Tarquinia because there was a limited corpus of designs and the technique was fully developed at its inception (Camporeale 1972a 147). Tarquinian cylinder stamped bucchero was exported to Vulci, Castro Farnese and possibly Chiusi (Camporeale 1972a, 148).

Amphora handles were in many cases decorated. Earlier amphorae had simple incised decoration, such as the straight lines on spiral amphora 17. However, in later periods incision was rare and relief decoration and openwork were the most common form of handle decoration. A stamp was most likely used for both with the background being cut away for openwork (Rasmussen 1979, 142).

Relief decoration was more a feature of later sixth century bucchero produced at Tarquinia, Vulci, Chiusi and Orvieto, particularly so-called bucchero pesante. The relief decoration was created by pressing the surface of the vessel into a mould held against the outer surface of the unfinished vessel. Potters’ finger prints are often still evident on the interior of these vessels. The vessel continued to be worked on the wheel to finish the interior and finer details were then executed in incision (Del Chiaro 1966, 99). The reliefs were rounder and less flat than earlier applied relief decoration and depicted animals, scenes of dancing and fighting. Single figures were usually found only on handles (Cristofani 1999, 48).

Highly detailed plastic decoration was a feature of bucchero from Southern Etruria in contexts of the end of the seventh century. The moulded supports of caryatid chalices are the most common plastic decoration of this period (Rasmussen 1979, 140). A later series of bucchero vessels with plastic decoration was produced at Chiusi, Vulci and Orvieto during the sixth century. The decoration was created in a mould and the fine details were highlighted using sharp tools and stamps. The plastic decoration was generally limited to small human and animal heads that appeared on the rims of oinochoai, thymiateria and on the handles of kyathoi (Gran-Aymerich 1993, 30).

Pure silver was used as an overlay on some rare bucchero pieces and the technique was probably limited to early, very fine bucchero. Only fragmentary

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98 Camporeale 1972a for a catalogue and description of Tarquinian cylinder seals.
99 Cups with two horizontal handles produced at Chiusi often have stamped relief decoration with human figures on the upper side of the handle. See Donati 1977 for discussion of these vessels.
100 This type of relief is different to the rare early seventh century examples, where the relief was carved from clay, applied to the vessel and details highlighted with incision. See Rasmussen 138–40 for discussion.
101 See Donati 1967, 1968 and 1969 for a discussion of plastic human head decoration from Vulci, Chiusi and Orvieto respectively. It may be that museum kyathos 33 had such a human head relief decoration where the handle is broken.
102 Chemical analysis suggests that mercury was used as the adhesive for the silver (Hirschland Ramage 1970, 17).
remnants of silver remain on the surface, but it is likely that it covered the entire surface of some vessels (Rasmussen 1979, 128). The overall effect would have reproduced the appearance of silver ware. No trace of silvering is present on any of the bucchero in the Nicholson Museum.

Inscriptions

Knowledge of Etruscan language has come from around 8,500 inscriptions that range in date from the seventh to the first century (Bonfante 2006, 9). Many of the inscriptions are single words that appear only once and unfortunately very few long texts have been found. Three gold tablets from Pyrgi, are texts in both Etruscan and Phoenician. They record the religious dedication of a gift by the king of Caere (Bonfante 2006, 13). The longest piece of Etruscan prose was found as wrapping on the Zagreb mummy, where over 1200 words have been preserved (Richardson 1986, 216). All inscriptions are able to be read but their meaning is not always understood. This is in part due to the fact that the Etruscan language is a non Indo-European language that has no relation to any known language and to the fact that many of the inscriptions are fragmentary and their meaning difficult to interpret (Bonfante 2006, 9).

The inscriptions can be divided into a number of categories. These include ritual inscriptions, inscriptions on boundary stones, funerary inscriptions, votive inscriptions and mythological inscriptions on mirrors (Richardson 1986, 216). A wide range of objects that include ceramics, bronze artefacts such as razors, knives, helmets, mirrors and fibulae, weaving tools, sarcophagi and architectural terracottas bear inscriptions (de Grummond et. al. 2000, 26). Most inscriptions are dedicatory and consist of only a few words recording names of the deceased, donor, the god to whom the object was dedicated or the mythological figure depicted (Bonfante 2006, 9).

Many bucchero vessels have been found with inscriptions scratched onto them. These vary from single letters to words and short sentences. Graffiti of one or two letters (termed sigla by de Grummond) is the most frequently found type of inscription and thousands of vessels with this type of inscription have been excavated from tombs, sanctuaries and habitation sites (de Grummond et. al. 2000, 26).

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103 The Zagreb mummy wrappings were pages of a linen book of the Hellenistic period where the pages of the Etrusca disciplina had been cut up into bandages used to wrap the mummy. See Bonfante 2006 for a short discussion on this and other longer texts found to date. See Brinton 1892 for a detailed early description of the wrappings on the Zagreb mummy. See Roncalli 1985 for a more recent discussion following restoration.

104 These mirrors are outside the time frame for this particular study, dating to a later period.

105 Graffiti are not limited to bucchero but have been found on impasto, black glazed ware and other ceramics and may be related to short inscriptions (dipinti) that appear on painted pottery (de Grummond 2006, 26)
Plate 65, footed bowls 46 and 47 and all have single letter graffiti on the underside of the vessel.

The mark on the base of 46 is a single letter $a$. The mark on the base of 47 is more complex and appears to be a combination of letters $a$, $e$, $v$ and possible strokes that may represent numbers or as suggested by Sassatelli for similar graffiti symbols from Marzabotto, purely decorative (Sassatelli 1993, 201). Johnston has suggested that this type of mark could be a butterfly mark (Johnston and Pandolfini 2000). The mark on the base of 65 is probably a combination of two letters $a$ and $v$.

A number of theories have been advanced regarding the meaning of the single letters and it is unlikely that a single theory would account for all of the inscriptions. One explanation is that they are abbreviations of personal names that may be either one or two letters. Inscriptions with complete names often have one or two single letters at the beginning but unless the full name is present the meaning of the single letters is uncertain (de Grummond et. al. 2000, 30). It has also been suggested that the abbreviation of the name represents either the owner or manufacturer of the vessel as on Greek ceramics. This interpretation has been questioned as large numbers of similar signs occur in very diverse geographical regions (Sassatelli 1993, 202). It is possible that the stamped marks on 25 and 77 are makers’ marks.

Single letters may also be abbreviations of a god’s name, particularly when the finds are from a votive context. For example on the Piacenza liver there are a number of three letter inscriptions that must represent god’s names (de Grummond et. al. 2000, 30–31).

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106 De Grummond et. al. 2000, is a preliminary report for an unpublished wider study of single graffiti marks.

107 The Piacenza liver (in the Museo Civico, Piacenza) is a life sized bronze model of a sheep’s liver from near Piacenza in the north of Italy that was made around 100BC. It is divided into a number of sections with graffiti inscriptions in each section. The model appears to be a teaching tool used by Etruscan priests to teach divination using animal organs. Various marks on the liver of a sacrificed animal were used to determine the future by haruspices (Bonfante 2006, 10–11).
Many of the incised inscriptions represent numbers. Amongst the inscriptions found on pottery at Villanovan Bologna almost half have been interpreted as being numerical. Storage vessels at Cetamura have numbers on the handles suggesting a possible method for recording capacity, with many of these incised prior to firing. Loom weights from the same site and of the approximately same size, often have a variety of symbols on them including numerals suggesting that there may have been more than one meaning for the symbols (de Grummond et. al. 2000, 32).

The symbol X is the most frequently encountered symbol. This symbol has been found throughout the period relating to Etruscan inscriptions (de Grummond et. al. 2000, 37). It appears not to be related to gender of the individual. It is usually found on the exterior underside of the vessel and added after firing. It may be the Etruscan symbol for the number 10, but the significance of the number on so many vessels is uncertain (de Grummond et. al. 2000, 37).

### Production Centres

Assigning production sites for bucchero once manufacture became standardised (after the fine early pieces) is generally very difficult. Outside of Southern Etruria it is often unclear whether bucchero in a particular region was locally produced or imported (Rasmussen 1979, 150). Various towns have been proposed as regional production centres based on the numbers of bucchero vessels found there and typological patterns associated with them.

A number of archaeometric studies of clay deposits in various regions have been undertaken but the results are largely inconclusive. For example, the archaeological evidence at Murlo is highly suggestive of local production of bucchero, but petrographic studies and clay analyses of local clay beds have not identified the clay source (Berkin, 2003, 114). Some regions, such as Tarquinia and Cerveteri, are very similar geologically and their clays cannot always be separately identified (Nijboer 1998, 84). The extensive processing of the clay for bucchero makes the distinction between geographical regions more difficult as potters modified clay to obtain particular characteristics in the finished vessel by removing inclusions or adding temper (Nijboer 1998, 58). The standardisation of production also suggests that potters selected particular clay resources to produce a standardised artefact. The level of pottery manufacture at some centres may mean that the sources of clay were completely exhausted in antiquity. As clay resources were used up new sources would have had to have been found resulting in possible different archaeometric pictures for vessels

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109 The Romans derived their numerals from the Etruscans but the numbers were reversed and written from left to right as opposed to right to left of the Etruscans (de Grummond et. al. 2000, 31).

108 Possibly illiterate individuals made a simple identification sign or possibly it denoted a ritual significance such as 10 ritual prayers, or possibly good luck? (de Grummond et. al. 2000, 37).

110 See Nijboer 1998, 62–4, for a discussion of clay levigation and tempering.
made at the same centre (Nijboer 1998, 60). Archæometric studies of samples of various bucchero vessels have identified Chiusi, Orvieto, Vulci, Tarquinia, Allumiere, Tolfa, Cerveteri, Veii and Rome as production centres (Burkhardt 1991, 1). Figure 8 presents a map showing the sites of proposed regional centres for bucchero manufacture, although production was not necessarily limited to these sites.

![Map of Italy showing proposed regional production centres of bucchero](image)

Fig. 8. Map of Italy showing proposed regional production centres of bucchero (Nijboer 1998, 57)

Following initial development of bucchero at Cerveteri, regional production grew rapidly especially at Veii, Tarquinia and Vulci. Cerveteri continued to be the centre for bucchero manufacture until bucchero ceased being produced in

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111 See Burkhardt 1991 for a series of petrographic studies from regions in southern and central Etruria such as Tarquinia, Cerveteri, Vulci, Chiusi and Orvieto each of which appear to have had their own production centre. See also Nijboer 1998, 58–60 for a summary of the geological aspects of soils in Latium and Etruria.

112 Recent excavations at Tarquinia have suggested that bucchero manufacture there began much earlier than originally proposed (Marchetti 2004, 50). See Bonghi Jovino 1986 for a discussion of the excavations, and Bonghi Jovino 1997 for a discussion of the finds. See Marchetti 2004 for the implications of the finds at Tarquinia on dating of localised production.
Southern Etruria (Gran-Aymerich 1993, 24).\textsuperscript{113} The production of bucchero developed in a variety of regions to the north and south of Cerveteri. This increase in the number of centres making bucchero coincided with the standardisation of bucchero shapes (Nijboer 1998, 58).

The bucchero from Veii, while very similar to that of Cerveteri, used a smaller range of shapes (Gran-Aymerich 1993, 24). The bucchero from there demonstrates links with the local production of impasto (Marchetti 2004, 26).\textsuperscript{114} Regter's study of fan decoration on bucchero of Southern Etruria has concluded that the fan decoration on vessels from Veii was produced by the same hand that produced vessels at Cerveteri. It may have been that all the early bucchero vessels from Veii were produced at Cerveteri or that the same artisan worked in both centres (Regter 1995, 44).\textsuperscript{115}

The production at Tarquinia, particularly in the early periods, had a close affinity with that at Cerveteri and Veii. However, the shapes there appear to have a closer resemblance to specific metal shapes as does the distinctive cylinder stamped and relief decoration not seen in the other regions (Gran-Aymerich 1993, 24).

Vulci is traditionally counted as a city of Southern Etruria, but the bucchero produced there stylistically belonged in the region of Central Etruria.\textsuperscript{116} Features that are characteristic of Central Etruria including plastic decoration, stamped decoration and shapes with exaggerated proportions, all feature in the bucchero production at Vulci (Gran-Aymerich 1993, 24).

Central Etruria was an important centre for bucchero manufacture during the sixth century, particularly the towns of Chiusi and Orvieto, and production there continued until the final stages of bucchero in the fourth century. Shapes in Central Etruria also appear to follow those of Cerveteri, particularly the kantharoi (Gran-Aymerich 1993, 25). The bucchero there has a strong homogeneity of size, decoration and shape with the development of forms centred on utilitarian ware such as small cups, plates and bowls (Gran-Aymerich 1993, 25).

\textsuperscript{113} Archaeometric studies carried out by Burkhardt identified 4 different bucchero ceramic groups at Cerveteri. Three were identified as originating in Cerveteri but one group was an import and was identified as having come from Tarquinia. He similarly identified a group of ceramics at Tarquinia that came from Cerveteri. This suggests close commercial links between the two bucchero production centres (Burkhardt 1991, 126; 130-1).

\textsuperscript{114} Marchetti 2004 discusses the development of bucchero manufacture at Veii and the relationships to other regions of Southern Etruria.

\textsuperscript{115} This finding raises interesting questions about how the economies of Etruria operated and how much centralisation of production there was around the principal cities of the region especially as bucchero was mass produced.

\textsuperscript{116} This relationship may be as a result of its location in the valley of the river Fiore, with trade with Central Etruria facilitated by travel along the river (Tamburini 2004, 186).
Bucchero manufacture in Central Etruria in centres such as Orvieto began later than in Southern Etruria, in the last twenty years of the seventh century, and the repertoire of shapes was more limited (Tamburini 2004, 186). Initial production was based on the shapes of Southern Etruria and there seems to have been two developmental direction: one following the shapes of Southern Etruria and the other a more local development, as is seen by the development of the thymiaterion (Tamburini 2004, 187–8).

Centres in Northern Etruria, particularly Vetulonia, as well as Roselle and Fiesole, demonstrated the influence of Southern Etruria. The production there was characterised by small stamped decoration. The core often has a granulose texture and a reddish colour similar to that of impasto.\(^{117}\) Ware from this region was exported north of the Apennines via a route to the west that also connected to Central Etruria (Gran-Aymerich 1993, 24).

Campania was another bucchero production region. Production there began around 610 following the arrival of imported bucchero from Southern Etruria. Capua and Pontecagnano were probably the main production centres (Rasmussen 1986, 273). The pieces found at Pontecagnano and Pompeii show close stylistic links to those produced at Veii, Tarquinia and Cerveteri at the end of the seventh and the beginning of sixth centuries (Gran-Aymerich 1993, 25). Campanian bucchero vessels were in general undecorated and when present, decoration was limited to incised horizontal lines, horizontal closed fans, stampping in the form of circles and rosettes, and occasional relief and plastic decoration (Rasmussen 1986, 273).\(^{118}\) The distinctive Campanian bucchero oinochoe was generally large, undecorated, made of a heavy fabric and had thick cylindrical handles, as can be seen on 32 (Rasmussen 1986, 273).\(^{119}\)

Bucchero was also produced in non-Etruscan regions. In the Faliscan areas impasto production was the main ceramic produced well into the sixth century (Rasmussen 1979, 149). A few bucchero imports from Southern Etruria have been found in this region and there was also a limited local production of bucchero during the sixth century. The bucchero from cemeteries at Capena and Falerii Veteres shows affinities with bucchero produced at Veii and Cerveteri but the local bucchero has distinctive incised decoration typical of the impasto of the region (Gran-Aymerich 1993, 25).\(^{120}\)

\(^{117}\) Some of this production was classed as a type of buccheroid impasto by Gran-Aymerich (Gran-Aymerich 1993, 27).

\(^{118}\) The fan decoration is less “delicate” than that on vessels of southern Etruria (Rasmussen 1986, 273).

\(^{119}\) The bucchero production points to close relations between the region and the Etruscans. For a discussion see Frederiksen 1979.

\(^{120}\) See Davison 1972 for catalogue of bucchero found at Narce.
Bucchero has been found at Rome, and much of it was imported from Southern Etruria, probably from Veii and Cerveteri (Gran-Aymerich 1993, 25). While there was a limited production of bucchero at Rome, impasto continued to be the dominant ceramic produced there. Production of bucchero probably began in the sixth century (Nijboer 1998, 69). Gran-Aymerich has listed Satricum as a bucchero production site. Nijboer however, has argued that there is no direct evidence from the kilns there to support this. If bucchero was produced at Satricum, he has argued that it was a limited production (Nijboer 1998, 83).

In final periods of production there may have been a limited local bucchero industry north of the Apennines. Finds of bucchero have been made at Marzabotto that date to the end of the sixth century (Gran-Aymerich 1993, 25). The influences appear to have come from Chiusi and Orvieto in Central Etruria and Fiesole in Northern Etruria.

**Distribution**

Bucchero was widely distributed. It has been found in regions all over mainland Italy as well as across the eastern and western Mediterranean in Greek and Phoenician regions, on the Iberian peninsula and in temperate European regions (Gran-Aymerich 1993, 19).

By last quarter of the seventh century the bucchero of Caeretan tradition was imported or copied in varying amounts in Central and Northern Etruria as well as Latium, Campania, and Ager Picentinus (Rasmussen 1979, 149). Bucchero has been found in regions to the north of the Appenines and it has been suggested that there was a trade route from Central Etruria to the North (Gran-Aymerich 1993, 25).

Outside of Italy bucchero has been found in sites across the Mediterranean from Spain to Turkey. Finds of bucchero from the Mediterranean regions are associated with bronzes and transport amphora and possibly reflect an intense export trade by the Etruscans at the end of the seventh to the sixth centuries.

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121 Burkhardt identified a group of sixth century bucchero vessels from Rome as having been produced in Cerveteri. He also identified a single piece which was similar to that produced at Orvieto (Burkhardt 1991, 132).
122 Burkhardt's study of 20 sixth century bucchero vessels found at Rome gave no indication of local manufacture of bucchero (Burkhardt 1991, 132).
123 Gran-Aymerich has referred to the manufacture of bucchero in the Sabine regions. He notes that the vase shapes from southern Etruria were adapted to a local tradition such as elongated amphorae decorated with large stamped metopes and stretched handles attached at the neck but gives no further information about a possible time frame (Gran-Aymerich 1993, 25).
124 The finds in mainland Europe and Iberian peninsula are not necessarily the result of direct trade but may be the result of “down the line trade” (Gran-Aymerich 1993, 19).
125 See Rasmussen 1979 pp 150–154 for a list of sites and bucchero forms found. See von Hase 1993, 190, fig. 1, for a map of sites where bucchero was found in the Mediterranean. See Gras 1979 for discussion of bucchero finds in Greece and Sicily.
(Gran-Aymerich 1993, 19). In particular, large numbers of bucchero of varied shapes have been found at the site of Carthage and there appears to have been direct commerce between Carthage and Etruria (Von Hase 1993, 188–9). The coast of southern France is another region where large numbers of bucchero have been found. At the site of Saint-Blaise over 3000 bucchero sherds have been found. The majority are fragments of kantharoi (Bouloumié 1979, 111).

127 Etruscan transport amphorae, that were used to transport wine and other produce, have been found at the same sites. The combination of Etruscan wine drinking vessels and transport amphorae is highly suggestive of an export trade in Etruscan wine from Etruria to France (Barker and Rasmussen 2000, 137).

The most common object found outside of Etruria is the kantharos Rasmussen type 3e, which was produced from last quarter of the seventh century until the third quarter of the sixth century (Rasmussen 1979, 150). The majority of vessels in bucchero in the seventh and sixth centuries relate to the service of wine. Other vessels have a more indistinct usage such as amphorae which may have held possibly oil, wine or other liquids (possibly honey) (Gran-Aymerich 1993, 35).

Gran-Aymerich has divided the regions of the Mediterranean based on the bucchero shapes found at each site. For example the finds in France are those associated with wine consumption such as kantharoi, oinochoai and olpai while in Carthage the main vessels found are amphorae. Gran-Aymerich’s regions are: the Central Mediterranean including Italy, Sicily and Sardinia; the Oriental Mediterranean including Greece, Turkey, Cyprus, Greek islands, Egypt and the Phoenician coast; the north Western Mediterranean covering coastal France and the south Western Mediterranean including Spain and Morocco (Gran-Aymerich 1993, 37).

**Chronology**

Many discussions of chronology are related to the nature of the fabric and use of terms such as bucchero sottile, transitional bucchero and bucchero pesante but many of these fabrics overlap each other chronologically. Gran-Aymerich has proposed a simpler chronology that divides the production of bucchero into six

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126 The bucchero acts as an indicator of exchange in the absence of other evidence of direct trade (Gran-Aymerich 1993, 19).
127 For a catalogue of bucchero finds at Carthage see von Hase 1989.
128 The export of bulk Etruscan goods is attested by the presence of Etruscan transport amphorae found along the coast of the Western Mediterranean dating from about the last quarter of the seventh to the late sixth centuries, particularly at sites in southern France (Nijboer 1998, 193). See Bouloumié 1979 for catalogue of finds at Saint-Blaise. See Lagrand for a discussion of bucchero finds in the Rhône valley and the Côte D’Azur
129 A shipwreck has been identified off the coast of Cap d’Antibes in France that was carrying around two hundred transport amphorae and a large quantity of bucchero (Barker and Rasmussen 2000, 137). For discussion of Etruscan commerce in France, Spain and Africa see Morel 1981 and Pomey et al. 2002.
distinct periods. The following is a summary of Gran-Aymerich’s chronological scheme (Gran-Aymerich 1993, 23–5).\textsuperscript{130}

Phase 1 covers that part of the Orientalising period dating to ca. 680-630. Bucchero first appeared at Cerveteri and then Tarquinia, Veii, Vulci and Vetulonia. Amphorae, oinochoai and kotylai were the main shapes produced. The fine, shiny, deep black bucchero of this period was made of highly purified clay with very fine walls and very detailed decorative schemes. Inscriptions first appeared.\textsuperscript{131} Exports from Cerveteri to other centres in Southern Etruria began at this time.

Phase 2 coincides with the late Orientalising period dating to ca. 630-610. The number of workshops in southern and coastal Etruria increased and standardisation of production of shape and decoration began. Decoration was mainly limited to incision and vertical grooves, diamond notching and figurative decoration on caryatid chalices. When present, decorative schemes adopted mainly alternating figurative zones with geometric decoration. Inscriptions were extended and included both single letters and dedications. Export, mainly from Cerveteri, spread to all areas of the Italian peninsula and export to the central (Carthage) and western (Marseille, Malaga) Mediterranean began.

Phase 3 coincides with the final Orientalising period dating to ca. 610-575 when bucchero production became completely standardised and a set repertoire of shapes was manufactured. There was a large increase in the number of production centres throughout Etruria, in Campania and in those areas of Etruscan influence in Italy. Large numbers of the following forms were produced: kantharoi, oinochoai, amphorae, chalices, cups without handles and bowls. There were large numbers of inscriptions, mainly of single letters. This was the period of peak production and export of bucchero, with large numbers of vessels exported to all regions of the Mediterranean as well as north of the Apennines from Cerveteri, Vulci and probably Tarquinia.

Phase 4 covers most of the Early Archaic period dating to ca. 575 – 530. This is the period with the largest number of bucchero workshops and the widest ranging export. There was no artistic innovation at this time and series of standardised vases appeared particularly of kantharoi, oinochoai, amphorae and chalices. Grey bucchero first appeared. Long inscriptions disappeared but examples of single words or letters persisted. Overseas export continued, particularly to regions such as Marseille, however, by the middle of the sixth century, the scope and numbers had begun to decline.

\textsuperscript{130} The absolute dates stated below are rounded to the nearest decade. Many of the conclusions reached about the chronology are based on the absolute dating of Protocorinthian and Corinthian pottery. Any changes that alter these dates will also affect the dating of bucchero.

\textsuperscript{131} The evidence to date suggests that inscriptions appeared first on bucchero and then appeared on impasto (Gran-Aymerich 1993, 21)
Phase 5 covers the Late Archaic period dating to ca. 530 – 490. This was a period of generalised recession of bucchero production throughout Etruria. The majority of forms disappeared, particularly mass produced forms such as kantharoi, kyathoi, oinochoai and amphorae, with bowls, cups and plates forming the majority of the production during this period. The kyathos and the Nikosthenic amphora appeared in Attic pottery. Grey and grey-black bucchero production increased. With a few exceptions inscriptions disappeared and export outside of Italy ceased.

Phase 6 coincides with the Post Archaic period dating to around 490 – 300. Production was limited to a few centres in Central and Northern Etruria. The shapes were limited to a number of utilitarian forms such as bowls, cups and plates and very occasionally miniature forms such as urns and jugs. Undecorated grey or grey black bucchero was of superior quality to black bucchero and was the predominant type of bucchero produced. Inscriptions were rare. There is no evidence for exportation.
Catalogue of Bucchero

22 Chalice (NM98.97)

Dimensions: H.: 8.5; D. Rim: 14, D. Base: 7

Condition: Large repaired crack halfway across bowl and foot repaired.

Clay and surface: Surface colour is black (GLEY 2.5/N) while core is very dark grey (GLEY 3/N); fine, well levigated clay with 5% mica inclusions and 10%mica on the surface.

Description: Carinated chalice; straight walls angle slightly outward; shallow flat bowl; small trumpet foot; diamond notched decoration on carinated ridge (repeat of four notches); three horizontal incised lines run parallel to rim two thirds way down wall; three shallow incised lines top of stem below join with bowl.


Discussion: Rasmussen chalice type 3a (last quarter of the seventh century to middle of the sixth century). The diamond notching on this vessel is clearly defined and would date this vessel no later than the first half of the sixth century.

Date: Ca. 625–550.
23 Chalice (NM 87.02)

**Dimensions:** H.: 5.4; D. Rim: 11.9–12.1, D. Base: 3.1.

**Condition:** Vessel repaired and painted black along section of notched edge not quite directly opposite handle; soil encrustation all over vessel especially in notching except on repaired section; numerous chips around rim and foot; 

**Clay and surface:** Surface colour is black (2.5Y 2.5/1) to yellowish brown (10YR 5/4) and the core is black (2.5Y 2.5/1); clay is fine and well levigated with no inclusions and 2% mica on the surface. 

**Description:** Small carinated chalice; convex wall; shallow bowl; very small trumpet foot; small flat double window handle attached at carinated ridge; rounded diamond notched decoration on carinated ridge (repeat of 4 notches); groove on interior opposite carinated ridge; row of nine vertical half open fans (eight rays) run around exterior of bowl parallel to lip; no fans above handle or on side opposite above repair; fan rouletting is shallow and difficult to see; burnished all over to a high sheen.

**Parallels:** Veii, Necropoli di Monte Michele; identical cup with two similar handles and fan decoration but has ribbed bowl instead of plain and row of two incised lines below fans (Boitani 1983, 555, pl. CII: c) another cup similar form but made of impasto and has Phoenician palmette design incised on wall; tomb dated to second quarter of the seventh century (ibid., pl. XCV: c).

**Discussion:** This chalice doubtless originally had two handles, indicated by repair and lack of fan decoration above it. The vessel shape is very unusual, especially the curved wall. Boitani has suggested that the examples are a shape unique to Veii and were probably produced by a single workshop (Boitani 1983, 555).

**Date:** Ca. 675–650.
24   Kantharos (NM 98.98, NM R852)
Dimensions: H.: 6.6, H. Handles: 12.4; D. Rim: 12.2
Condition: Repaired with cracks across the bowl and both handles with large piece replaced in the base.
Clay and surface: Surface colour black (GLEY 2.5/N) with very dark grey core (GLEY 3/N); fine well levigated clay with 10% fine white inclusions and 15% mica on surface.
Description: Kantharos with carinated ridge; two flat ribbon handles; upper surface of handles slightly concave; shallow bowl; low ring foot; two incised lines run horizontally immediately below lip; incised diagonal lies on carinated ridge (repeat pattern of 9 lines); finely burnished horizontally all over to a fine sheen, handles have vertical burnishing.
Provenance: This piece is reportedly from Cerveteri.
Publication: Reeve 1870, No. 852 and McDonald 1898, No.138.
Discussion: Rasmussen Kantharos type 3h (from the second quarter to end of sixth century) (Rasmussen 1979, 108). The notched decoration is dated to first half of the sixth century (Rasmussen 1979, 131). It is likely that this piece therefore, dates to second quarter of sixth century. This type was fairly widespread in all regions of Etruria and in Campania (Rasmussen 1979, 147).
Date: Ca. 575–550.
25 Kotyle (NM R891)

**Dimensions:** H.: 6.4; D Rim: 8.6, D. handles: 13.8, D. Base: 3.8

**Condition:** Body intact but chips around rim foot edge.

**Clay and surface:** Fine, well levigated clay with 2% white and 10% mica inclusions. Core and surface colour are black (2.5Y/1).

**Description:** Kotyle on small ring foot; two round sectioned horizontal handles attach just below rim; undecorated; burnished (horizontally) all over to a fine sheen except inside of the base; on base possible maker’s mark -shape of a

**Publication:** Reeve 1870, No. 891.


**Discussion:** Has proportions and small foot size of Rasmussen Kotyle1b (between second and third quarters of the seventh century) although the lack of decoration and increased heaviness suggest that it was late in the series probably third quarter of the seventh century (Rasmussen 1979, 91).

**Date:** Ca. 675–625, probably 650–625.
26 Cup (NM 98.165, NM R878)


Condition: Restored handle and lip with evidence of black paint to cover repair otherwise bowl intact. Edge of foot possibly filed smooth.

Clay and surface: Surface colour uneven black (7.5YR 2.5/1) with areas of brown on surface and core is grey (7.5YR 5/1); fine well levigated clay with 5% white and mica inclusions.

Description: Cup; two round sectioned upward angled handles attached at shoulder; above attachment bowl curves in sharply to meet short everted lip; conical bowl; small ring foot; groove around bowl where lip and bowl meet; between handles total of 12 rouletted half open right facing horizontal fans (four to five arms each; six fans per side); below are two uneven incised lines that overlap at ends; a further panel of 13 vertical open fans (three arms each) between incised lines and foot.

Publication: Reeve 1870, No. 878.

Parallels: Poggio Buco, tomb VII, smaller kylix (H.: 5.3), body with similar proportions but lip wider, last quarter of the seventh to middle of the sixth century (Bartolini 1972, 91, fig. 42: 55; pl. L1: b, Inv. 76059). Vulci, wider lip (Falconi Amorelli 1971, pl. XLV: 58: Inv. 64371). Orbetello, tomb 1; wider lip; tomb dated to first quarter of sixth century (Michelucci 1991, fig. 3: 2; pl. X: a). Cerveteri, Monte Abatone, tomb 426, four examples with wider lip and about one to two cm smaller in height; all examples have row of incised lines but only last example has single row of fan decoration between handles, last quarter of the seventh century (Coen 1991, 49: 17, pl. XXXVI: d, 21 C.PR; ibid., 55: 44, 45, 46, pl. XLIV: d, c, e, Inv. 24 L.D., 25 L.D., 26 L.D.)

Discussion: Rasmussen cup type 1c which is a highly variable category (third quarter of the seventh to first quarter of the sixth century). This example is unusual as it has a very short lip (Rasmussen 1979, 118). It was widely found in Etruria, Latium and in export contexts at Carthage and Megara Hyblea (Coen 1991, 96).

Date: Ca. 650–525.
27 Cup (NM 87.03)

**Dimensions:** H.: 6.5; D. Rim: 11.2, D. Base: 4

**Condition:** Four rough, circular sections on upper bowl, two either side; the marks correspond to possible handle location; otherwise intact except for small chips edge base; abraded inner surface;

**Clay and surface:** Surface colour black (2.5Y 2.5/1) and core yellowish brown (10YR 5/4); fine well levigated clay with 5%mica inclusions.

**Description:** Cup with conical bowl; wide offset lip; small trumpet foot on a short stem; horizontal groove runs around join of bowl and lip; three horizontal incised lines (that overlap at ends) run around vessel below groove; another set of three lines on bowl above the stem.

**Publication:** Unpublished.


**Discussion:** This piece doubtless had two handles; the marks where a restorer has attempted to camouflage their absence are clearly visible. Rasmussen cup type 3b; a variable category shape that is predominantly found from last quarter of seventh to first quarter of the sixth, some examples continuing into second quarter of the sixth (Rasmussen 1979, 120). The type 3b cup has been found across Etruria, Latium, Campania and across the Mediterranean at Carthage, Samos and Sardinia (Coen 1991, 98). Campanian typology: Albore-Livadie’s kylix type 5A dated to 640–20 (Phase IVA) (Albore-Livadie 1979, 101, fig. 18). The fabric of this piece is outside the strict parameters for bucchero because of the colour of the core clay. The fabric is not typical of Central Etruria either. It may have formed part of the production of another regional production centre, possibly Campania.

**Date:** Ca. 675–525.
28 Kyathos (NM R844)

**Dimensions:** H.: 8.5–9; D. Rim: 9–9.6, D. Base: 4.6

**Condition:** Intact except handle is broken off; large break at handle site. Upper rim edge chipped; white accretions to inside foot.

**Clay and surface:** Surface colour dark grey (2.5Y 4/1) core varies from very dark grey to black (2.5Y 3/1 – 2.5/1); fine well levigated clay with 15% mica inclusions.

**Description:** Kyathos with one handle; conical body; wide offset lip; small trumpet foot; where lip and body meet two horizontal grooves with a single relief row between run around vessel; white accretions remain inside grooves; highly burnished horizontally all over including inside the foot.

**Publication:** Reeve 1870, R844.

**Parallels:** Cetona, Tomba di Cancelli, tomb 7, slightly larger (H.: 11) and two relief lines around rim instead of one, second half seventh to beginning sixth century (Moretus 1978, 138, fig. 17; Inv. 78317). Vulci; similar form with relief decoration of human face at join of handle and lip (Falconi Amorelli 1971, 52, pl. XLIII: b, Inv. 64379).

**Discussion:** Unusual kyathos shape; it most closely matches Rasmussen type 4b but the body is more like his cup type 3a. Type 4b has a long production from the last quarter of the seventh to the third quarter of the sixth century, but most examples found have been dated to first half of the sixth century and cup type 3a is dated to the last quarter of the seventh century (Rasmussen 1979, 116, 119). Similar kyathoi with relief human figured decoration often have a moulded head on the lip at the handle join. R844 has a rounded break around the lip suggesting that it too may have had similar decoration. Such decoration is a feature of production at Vulci, Chiusi and Orvieto in the middle of the sixth century (Donati and Michelucci 1981, 54).

**Date:** Ca. 625–525.
29  Jug (Attingitoio) (NM87.04)

**Dimensions:** H.: 11.5–11.9; D. Rim: 8.6, D. Base: 3.7

**Condition:** Numerous chips around rim foot otherwise intact; one exterior side of neck dull and worn.

**Clay and surface:** Surface colour and core are both black (GLEY 2.5/N); fine well levigated clay with no apparent inclusions in core; 3% mica on surface.

**Description:** Small jar with everted lip; tall neck; slight shoulder, conical body, small hollow ring foot; the wearing to one side most likely covers damage where there would originally have been a handle; three incised horizontal lines run around vessel halfway down neck; lines uneven and not parallel; distinct ridge where neck and shoulder meet; horizontally burnished to high sheen on exterior, inside foot, inside upper lip.

**Publication:** Unpublished.

**Parallels:** All parallels have a single flat handle.

Poggio Buco, tomb VII, last quarter seventh to middle sixth century (Bartoloni 1972, 9, fig. 40: 54; pl. L: e; Inv. 76067). Caere, Bufolareccia, tomb 86, second half of the seventh century, four examples, one has row of horizontal half open fans above incised lines (Coen 1991, 16–7: 17–20, pl. V: c & d, pl. VI: a & b; Inv. 66791, 66794, 66793, 66792). Caere, Monte Abatone, tomb 123; tomb dated to end of seventh century (ibid., 34: 20; pl. XXV: a). Caere, Monte Abatone, tomb 426; three examples; tomb dated to second half of the seventh century (ibid., 48: 12& 13, pl. XXXV: d & e, Inv. 16 C.PR. & 17 C.PR.). Poggio Montano (Viterbo), first half of the sixth century (Emiliozzi 1974, 41:15, pl. XV: 15). Calès, tomb 1 (Albore-Livadie 1979, Pl.III).

**Discussion:** There are no parallels for this shape without a handle. With a handle it would match Rasmussen jug type 1b category, which has a flat handle that joins at the lip and shoulder and is dated from last quarter of seventh to third quarter of the sixth century (Rasmussen 1979, 91) This shape was widespread in all regions of Etruria, Latium and Campania (Rasmussen 1979, 145).

**Date:** Ca. 675–525.
30  **Oinochoe (NMR894)**

**Dimensions:** H.: 22.2, H. Handle: 23.9; D. Lip: 16.6, D. Base: 6.1

**Condition:** Intact apart from a number of large chips rear of trefoil and around foot rim.

**Clay and surface:** Surface colour is black (GLEY 2.5N) and core colour very dark grey (GLEY 3/N); fine well levigated clay with 1% white medium and 5% mica inclusions, with 5–10% mica on surface.

**Description:** Oinochoe with trefoil mouth; flat ribbon handle joins at mouth and shoulder and curves up above mouth; lip is flattened in front of handle join with ends of this flat section formed into round rotelles; straight neck that angles outward slightly; high shoulder; sharply angled conical body to small flat foot; Flat handle joined at lip and shoulder and sits higher than neck; two grooves where neck and shoulder meet; two friezes of shallow incised lines run around body (probably individually drawn); one of two lines, then a lower one of four lines. Single incised line above join of foot and bowl; highly burnished to a fine sheen, horizontally on bowl and lip, vertically on neck and handle.

**Publication:** Reeve 1870, R894.

**Parallels:** Pitigliano, about a third smaller and handle not quite as high, tomb dated seventh to sixth century (Maetzke 1955, fig. 2: 10). Cerveteri, Necropoli di Monte Abatone, tomb 304, similar shape but has added relief, horizontal lines and incised figured decoration, last quarter of the seventh century (Bonamici 1974, 20, pl. VI: a, b, c, d, Rasmussen 1979, 17: 3). The J. Paul Getty Museum, Malibu, Inv. 86.AE.395, similar shape and size but the rotelles are larger and elaborately decorated with incision, fans and graffito frieze (CVA USA 31, pl. 302-303). Israel Museum, Inv. IMJ 84.81.439, rounded handle and more detailed incision decoration including incised figured decoration and rouletted fans (Jucker 1991, 182: 228).

**Discussion:** Rasmussen type 4c (last quarter of the seventh century) (Rasmussen 1979, 82). Most of the parallels have detailed decorative schemes and the lack of decoration could suggest that R894 was late in the series. This type is widely distributed in Southern Etruria.

**Date:** Ca. 625–600.
31 Oinochoe (NMR834)

**Dimensions:** H.: 24; D. Base: 9

**Condition:** Half trefoil lip is broken and replaced with white modern plaster; worn surface of middle of body.

**Clay and surface:** Surface colour is black (2.5Y 2.1/1) to dark grey (2.5Y 4/1) and core dark grey (2.5Y 4/1); fine, well levigated clay with 10% white inclusions and 10% mica on surface.

**Description:** Round bodied oinochoe with trefoil mouth; thick round-sectioned handle joins at mouth and on body; handle squared to be level with top of trefoil; fairly short neck; groove where neck and shoulder meet; short wide convex ring foot; undecorated; burnished to high sheen horizontally (handle vertically) all over the vessel and into top inside of lip.

**Publication:** Reeve 1870, R834.

**Parallels:** Vulci (Falconi Amorelli 1971, pl. XLIV: a, 18 & 19; Inv. 64347 & 64348). Nola, tomb 24, beginning of the sixth century (Bonghi Jovino and Donceel 1969, 63, pl. XI: B3, Inv. 117). Nola, tomb 25, first quarter of sixth century (ibid., 64, pl.XII: B 5, Inv. 121). Nola, tomb 12, dated to around 570–560 (Albore-Livadie 1975, 96, pl.XI). Schloss Fasanerie (Adolphseck), Inv. AV 507 (CVA Germany 16 pl.70: 3). Mannheim, Reiss Museum, Inv. 188, first half of the sixth century (CVA Germany 13, pl. 38: 8).

**Discussion:** Similar to Rasmussen type 6a, a fairly widespread type, later produced in Campania. Rasmussen has dated this type to the beginning of the sixth century, probably the first quarter. The heavy fabric of this example suggests Campanian production and it matches Albore-Livadie’s type 10C, which is generally dated to the 620–590 (phase IVB) although some examples of this form continued into the next phase dated 590–70 (early phase IVC) (Albore-Livadie 1979, 105, Fig 22).

**Date:** Ca. 620–570.
Oinochoe (NMR954)


Condition: Intact, surface eroded except around handle and black colour has faded.

Clay and surface: Surface colour black (10YR 2/1) to light yellowish brown (10YR 6/4) and core colour dark grey (10YR 4/1); fine well levigated clay with 10% inclusions including mica and medium white and black inclusions.

Description: Oinochoe with trefoil mouth with large trefoils; thick round sectioned handle joins at mouth and shoulder; handle squared at mouth join; long straight neck; sharp angle shoulder; rounded conical body; small convex ring foot; undecorated; horizontal burnishing all over to a fine sheen.

Publication: Reeve 1870, R954.

Parallels: Capua, tomb 342, 570–520 (Albore-Livadie 1979, 97, pl. XV). Nola, tomb 37; similar form but rounder body, beginning sixth century (Bonghi Jovino and Donceel 1969, 80, pl. XXI: B, 4, Inv. 198). CVA Great Britain 16; dated to early sixth century (pl. 58, 1; 1956.468). CVA France 34; dated to 580–540; Campanian (pl. 34, 10 & 11; N 1778 & C 174).

Discussion: This piece has a thick handle, straight back of the neck and a thick dense fabric, all features of Campanian production. Albore-Livadie oinochoe 10D dated to 570–20 (phase V) (Albore-Livadie 1979, 108, fig. 25).

Date: Ca. 570–20.
Oinochoe (NMR897)

Condition: Top of the neck and the majority of handle are missing, body intact; random abrasion all over surface.
Clay and surface: Surface is black to brown (2.5Y 2.5/1 – 7.5YR 4/3) and the core clay is grey (7.5YR 5/1). Clay is fine and well levigated with 5% white inclusions and surface has 5% mica inclusions.
Description: Round bodied vessel with a narrow neck and single strap handle attached at top of body; narrow flat base and vessel is unstable; burnished all over to a high sheen – horizontally on body and base, vertically on the neck.
Publication: Reeve 1870, R897.
Parallels: Musée de Compiègne (Musée Vivenel), from Civita Vecchia, round bodied oinochoe with a narrow neck, flat lip and flat handle that attaches at shoulder and lip; the body is more squat and wider and neck is also wider; similar fabric (CVA France 3, 15; pl. 21, 4). British Museum, Inv. H 143, unknown provenance, similar round body but body flares out and appears bulbous, similar neck with trefoil mouth, twisted handle (Walters 1912, 234, pl.XVII: H143). British Museum, Inv. H 166, unknown provenance; similar size, body is more conical with a defined shoulder and a ring foot and handle is grooved, sixth century (CVA Great Britain 10, pl. 14, 4).
Discussion: The shape is unusual, particularly the rounded body. The shape is reminiscent of Cypriot oinochoe. The closest parallel, particularly for the narrow neck is the example in the British Museum of unknown provenance. Date is uncertain but fabric suggests sixth century possibly Central Etruria.
Date: Uncertain possibly sixth century.
Jar (NM62.777)

**Dimensions:** H.: 5.3; D. Rim: 5.5, D. Base: 3.0

**Condition:** Intact apart from fine hairline crack in rim.

**Clay and surface:** Surface colour black (GLEY 2.5N); fine, well levigated clay with 5% mica inclusions on surface.

**Description:** Small round bodied jar with short everted lip; flat foot; lightly burnished on exterior only.

**Parallels:**
- Poggio Buco, tomb VII, impasto example, which is considerably larger, end first quarter to beginning second quarter sixth century (Bartoloni 1972, 100. fig. 47: 93; pl. LVIII: c; Inv. 76083);
- Poggio Buco, tomb VIII, middle sixth century (ibid., 132, fig. 63: 117, pl. LXXXII: f; Inv. 95740);
- Poggio Buco, sporadic find; seventh to sixth century (ibid., 186, fig. 92: 98, pl. CXXIX: b; Inv. 77088).
- Grotte di Castro, Necropoli di Pianezze, Tomb P19, sixth century (Museo Civico Archeologico e delle Tradizioni Populari Grotto di Castro, SAEM 132939).

**Discussion:** Widespread shape which appears to be long lived. Closest parallels appear to be in Central Etruria.

**Date:** Probably sixth century.
Amphora (NM98.10)


Condition: Intact apart from small chip in the rim and three hairline cracks in the body; slight lean to one side.

Clay and surface: Surface colour is black (2.5Y 2.5/1) with very dark grey core clay (2.5Y 3/1). Clay is fine and well levigated with 5% white fine to medium inclusions. Surface has 10 – 15% mica inclusions.
**Description:** Amphora with everted lip attached to wide flat strap handles that then attached at the shoulder; tall neck with a groove where it meets the shoulder; rounded shoulder angled to conical body; wide short hollow stem and flat thick ring foot that has horizontal groove running around outer edge; carinated ridge where bowl and foot meet with a series of five burnished wheel striations running horizontally around the foot; on the shoulder of the vessel is an incised figured design between two incised horizontal grooves below which is a panel of numerous vertical lines (probably individually drawn). On one side two lions face each other with possibly an altar in between; three rosettes in the field of view; a similar design is on the opposite side except the animals are panthers; an incised design also appears on outer side of both handles. A groove runs across the top and bottom of the handle and in from each edge; in between is a series of overlapping crossed incised lines with circles at the cross-over points and a central rosette; burnished to a fine sheen all over and into lip but not inside of neck or foot (horizontally on the body and vertically on the handles).

**Publication:** Unpublished.

**Parallels:** Vessel has shape parallels with a number of bucchero amphorae in the Louvre Inv. C599 and C607, (CVA France 31, pl 40) and Louvre Inv. C608 and C609 (ibid., pl. 38) which are all about 6-8cms taller. None of these vessels has incised figured decoration. There appear to be no parallels for the incised figured decoration. An amphora in the Louvre Inv. S 4553, has similar crossing lines on the handle (CVA France 31, pl. 28) and a pyxis lid of unknown provenance has similar incised flower motif on the underside although the rest of the decoration is quite different (Bonfante and Wallace 2001, pl. 33). Cerveteri; amphora same shape but taller (H.: 32.5); dated to the third quarter of the sixth century (Jucker 1991, 190; 245).

**Discussion:** Examination of the vessel confirmed that the incised decoration was applied to the vessel when it was produced. Rasmussen amphora type 1g (Nikosthenic amphora category) dated from second quarter to end of the sixth century. Incised figured decoration is dated from the middle of the seventh to the end of the second half of the sixth century. It is unusual to find incised decoration on the body of type 1g amphorae although the handles are often decorated with relief, stamping or incision (Rasmussen 1979, 74). The incision decoration is singular, with no parallels. In particular the lions have no parallels. The incised lions of the second quarter of the sixth century are generally longer-bodied, not as rounded as these, and when their mouths are open they usually have either long tongues or a leg protruding. The depiction of the fur around the neck is also singular. The faces of the panthers are unlike any others, particularly the manner that the eyes and facial features have been drawn. The altar motif has no parallel in incision although a similar structure is present on a wall painting found at Caere, now in the Louvre (Marie-Bénédicte 2007). The floral motifs (rosettes) do have parallels, such as the pyxis published by Bonfante and Wallace that has no provenance and one example in Bonamici’s catalogue that she considers to be suspect (Bonamici 1974; pl. XLVIII, a, b). The decoration is highly suspect and would suggest that the vessel is a forgery. The vessel has some interest as it is has been in the Nicholson Museum since at least 1898.