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# ETRUSCAN SIGLA (“GRAFFITI”): PROLEGOMENA AND SOME CASE STUDIES

*Nancy T. de Grummond, Ceil Bare, and Amy Meilleur*

In 1996, this project to make a comprehensive study of Etruscan sigla was initiated in the Department of Classics at Florida State University, under the direction of Nancy T. de Grummond, who had become interested in these markings after excavating many examples at the Hellenistic hilltop settlement of Cetamura del Chianti. Seventy-five examples are published by M. L. Robertson, in *Rivista di Epigrafia Etrusca, Studi Etruschi* 55 (1989) p. 279–309. On Cetamura in general, see most recently N.T. de Grummond, P. Rowe, C. Ewell and C. Bizzarri, *Excavations at Cetamura del Chianti [Civita-mura], 1992–1998: Preliminary Report, Etruscan Studies*, 6, 1999, p. 163–184.

The original participants in this project—Ceil Bare, Amy Meilleur, Catherine Norden and Jeremiah Yeksvich—were selected from undergraduate majors and minors in Classics at FSU. The project included thorough research in libraries and autoptic studies of sigla in Italy, as well as hundreds of hours of collating and computerizing data. Many sessions were devoted to analysis and discussion of the material within the team. The results of the research of two members of the group are presented here as the first fruits of the study. The undergraduate researchers studied 10 individual sigla or characters as part of the pilot study; of these, two have been selected for presentation here. The format for their reports is based on a vision of the final product of this project as a series of entries in a dictionary of all Etruscan sigla.

We would like to thank the following for assistance with our research: Larissa Bonfante, Alexis Christensen, Kimberly Christensen, and in particular Silvana Tovoli. We are grateful to Jane Whitehead for supplying complete documentation on many unpublished sigla from the site of La Piana, near Siena.

In citing examples of Etruscan writing, we have observed the generally recognized conventions for transliteration, concisely tabulated by M. Pallottino, *Testimonia Linguae Etruscae*, 2nd ed., 1968, p. 13.

The following abbreviations will be used for frequently cited works:

CIE: *Corpus Inscriptionum Etruscarum*.

Cristofani, *Introduzione*: M. Cristofani. *Introduzione allo studio dell'etrusco*, 2nd ed., 1991.

NSc: *Notizie degli Scavi*.

Pandolfini: M. Pandolfini and A.L. Prosdocimi. *Alfabetari e insegnamento della scrittura in Etruria e nell'Italia antica*, 1990, p. 3–89.

REE: *Rivista di Epigrafia Etrusca (Studi Etruschi)*.

Rix: H. Rix. *Etruskische Texte, Editio Minor*, 2 vols. 1991.

Roller: L. Roller, *Nonverbal Graffiti, Dipinti and Stamps*, *Gordion Special Studies* 1, 1987.

Sassatelli, 1981/82: G. Sassatelli. *Graffiti alfabetici e contrasegni nel villanoviano bolognese, Emilia Preromana*, 9/10, 1981/82, p. 147–255.

Sassatelli, 1994: G. Sassatelli, ed. *Iscrizioni e graffiti della città etrusca di Marzabotto*, 1994.

SE: *Studi Etruschi*.

This article deals with the short inscriptions and symbolic markings found in Etruscan excavations that are frequently referred to as graffiti, and here will be called sigla. It is the purpose of this article to define a sphere of study in Etruscan archaeology that has thus far received insufficient attention, and to develop some guidelines for research on this body of material. First will come general introductory remarks on terminology, the extent of the material, the state of scholarship, and existing theories about the markings. This will be followed by a discussion of the building of a database for sigla and a recommended protocol for the recording of these marks. At the end, two sample studies of individual characters will be provided.

## Terminology

The word *graffiti* is regularly used by scholars of Etruscan language and culture to refer to a category of very short inscriptions and symbols in which, normally, no actual words are to be recognized.<sup>1</sup> The inscriptions are of one or more characters. (For the purposes of this study, an arbitrary decision was made normally to include sigla with up to three characters, so long as the three did not produce a recognizable word.) The characters may themselves be letters (Figs. 1–2), numbers (Figs. 3–7, 9) or signs that cannot within the present state of our knowledge be correlated with the alphabet or numerals (Fig. 10). The sigla seem to refer at times to particular words, at others to some meaning beyond the written characters.<sup>2</sup> The term *graffiti*, related to the Italian verb *graffiare*, “to scratch,” in its most literal sense refers to inscriptions scratched or in-

<sup>1</sup> See, e.g., Sassatelli, 1994, p. 213.

<sup>2</sup> Among the other terms sometimes used to refer generally to such inscriptions are the words *countersign* and *trademark*. Since the former is vague and the latter can be quite misleading, these two words are avoided in this study.

cised on a surface. Clearly related to these are short painted inscriptions (*dipinti*) as well as some stamped characters that seem to have a function similar to that of the incised ones. Thus far in Etruscan studies it seems that no term has been brought into accepted general usage that embraces the characters and signs made in these various ways and that adequately expresses their function of conveying meaning by a simple sign rather than a word. M. Buonamici<sup>3</sup> dealt with several different kinds of short inscriptions, and among the terms he employed in Italian was the word *sigla*, noting that some scholars had used this term to refer to abbreviations, ligatures and/or symbols. It is here proposed to use a Latin form of this word, based on an established English usage according to which the term "sigla" is regarded as a noun borrowed from Latin (neuter plural), meaning "signs, abbreviations, letters or characters, standing for words, shorthand, etc."<sup>4</sup> The singular form "siglum" will also be used, as well as an adjective, "siglal." In regard to the Etruscan examples, these terms will refer to a mark or marks—incised, painted or stamped—that convey a meaning in a manner apart from normal linguistic means, i.e., the writing of words. The word *graffiti* will not be discarded completely, but will still be used to refer to the quite numerous examples of siglal writing that are scratched or incised upon a surface.<sup>5</sup>

### Extent of the material

To date, no systematic study of Etruscan sigla has been made, a surprising state of affairs in light of the fact that thousands have been excavated, and that they are commonly found on Etruscan sites ranging from small to large and including habitation, tombs, and sanctuaries. Examples may be cited from as early as the seventh century *b.c.* (at least) and as late as the first century *b.c.*, and from as far north as Spina and the Po Valley, and as far south as Capua and Nola. The two case studies included below list some of the many sites in this territory that have yielded

Etruscan sigla (see Table 1 of each study). Siglal writing represents a current of communication available to a wide spectrum of society in Etruria, including those who were not truly literate. Some Etruscan sites have far more inscriptions with sigla than inscriptions with words, indicating that siglal writing was an important everyday mode of communication.

The range of cultural material providing evidence for siglal writing includes: pottery (by far the largest category), loomweights, spindle whorls, terracotta sarcophagi, canopic urns, roof tiles and other architectural terracottas, lead missiles, coins, stone weights, boundary stones, stone walls, bronze artifacts of many different types (axes, razors, knives, sickles, helmets, fibulas), and bone and ivory plaques.<sup>6</sup>

### State of Scholarship

Many excavators have found sigla to be insignificant or meaningless and have neglected to publish them, or have failed to give them the attention bestowed upon longer inscriptions. Handbooks of the Etruscan language normally ignore this category of evidence.<sup>7</sup> H. Rix, in his authoritative collection of Etruscan texts declares that these writings are "Untexten" and therefore are to be excluded from the study of the language.<sup>8</sup> On the other hand, some excavators have published their sigla with care in the annual *Rivista di epigrafia etrusca* of *Studi Etruschi*, notable among which are the specimens from Spina, Roselle, Cetamura and Capua.<sup>9</sup> Recently Sassatelli has produced comprehensive surveys of specimens of writing from Marzabotto (the sigla are treated by E. Govi) and Villanovan Bologna, immensely useful in that each study provides a complete corpus of sigla from a particular location (in the case of Bologna, for a particular period).<sup>10</sup> Final excavation reports such as the recent one on the Hellenistic Fondo Scaraglino at Tarquinia by Francesca R. Serra

<sup>3</sup> *Epigrafia Etrusca*, Florence, 1932, p. 236–240.

<sup>4</sup> Webster's New International Dictionary of the English Language (Merriam-Webster), 2nd ed., 1941, s.v. "sigla."

<sup>5</sup> As a further comment on the drawbacks of using the term *graffiti*, we may note that the word is also employed to refer to incised drawings or doodles from the ancient world. The usage of the term in modern culture, to describe scrawling on the surfaces of walls, vehicles, etc., is of course quite remote from the Etruscan cultural material discussed here.

<sup>6</sup> These usages are listed on the basis of sigla in REE, CIE and the publications by Sassatelli, 1994 and 1981/82, as well as examples as cited in notes 27–34 below.

<sup>7</sup> Buonamici, *Epigrafia etrusca*, 1932, p. 236–240, as noted above, has a brief treatment. There is no treatment in Cristofani, or in A. Morandi, *Nuovi lineamenti di lingua etrusca*, 1991 (less than one page on numerals), M. Pallottino, *The Etruscans*, 1975, chapters 10–12, on language, L. Bonfante and G. Bonfante, *The Etruscan Language, An Introduction*, 1983 (one diagram of numerals. The second edition, in preparation, will include information on sigla).

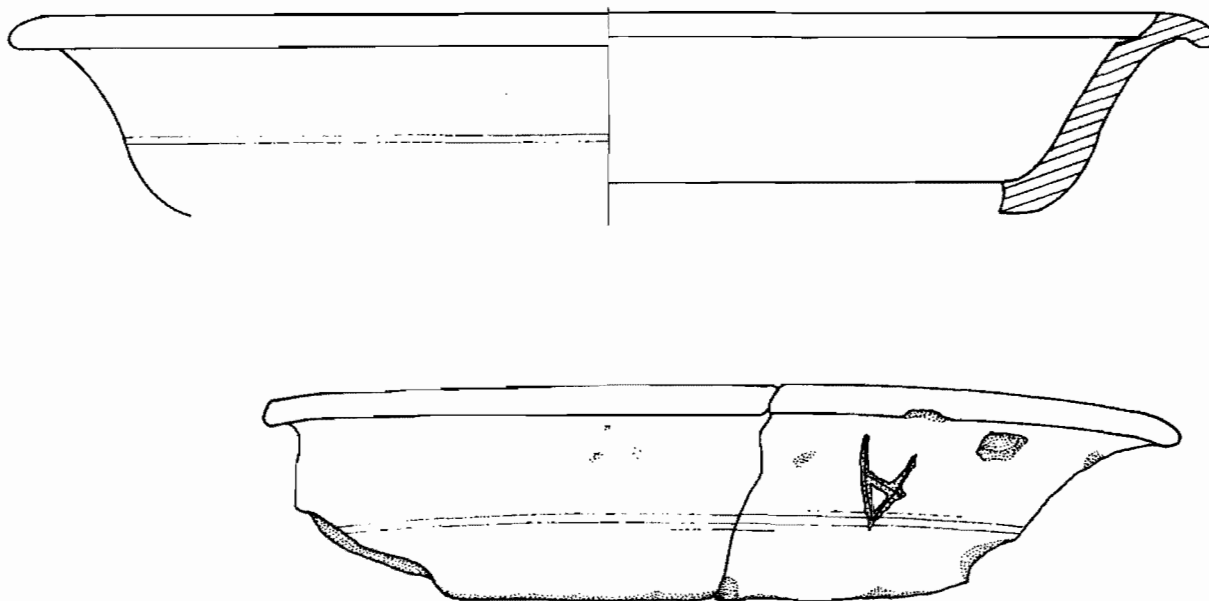


Fig. 1. Red-gloss Etruscan bowl ("Volterrana presigillata") from Cetamura (inv. A1257p), with siglum a. Second century b.c.

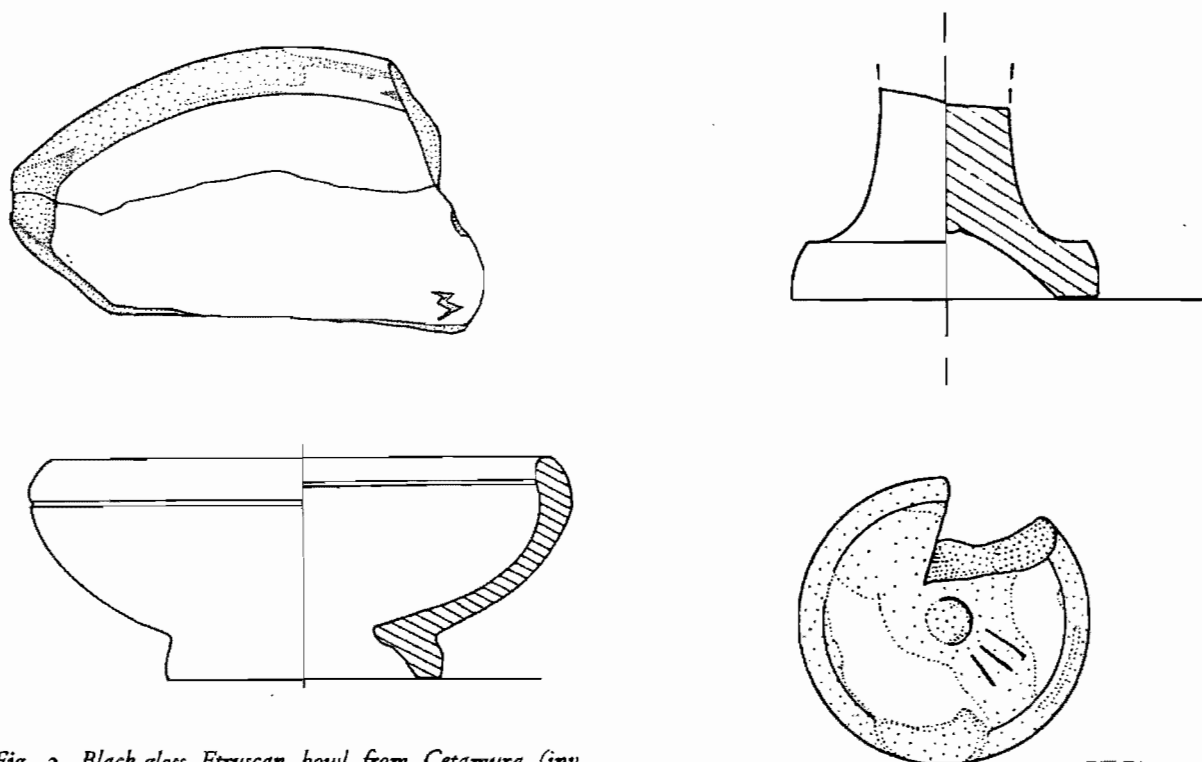
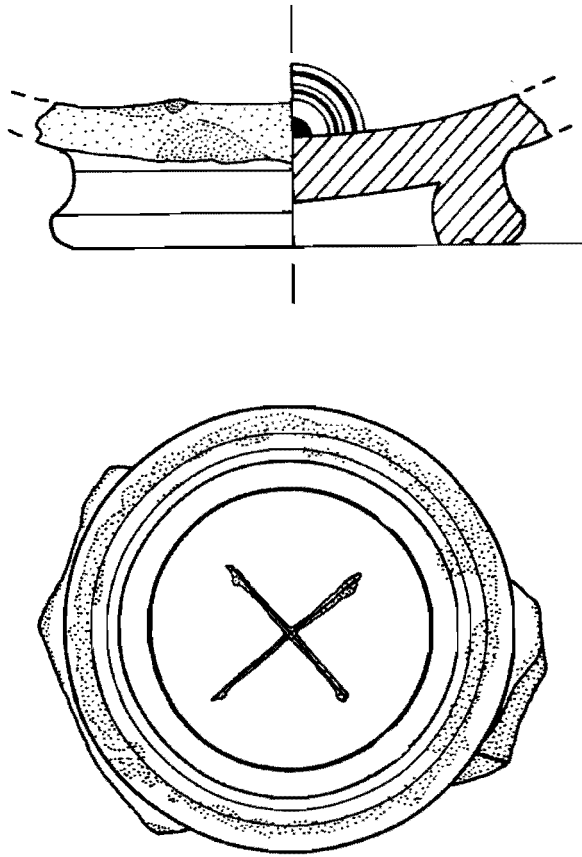
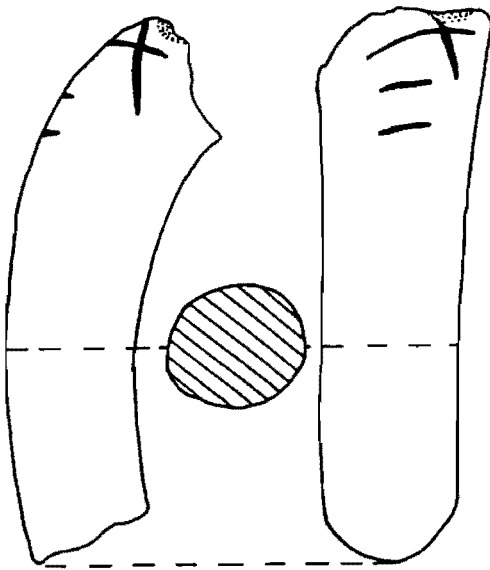


Fig. 2. Black-gloss Etruscan bowl from Cetamura (inv. DB1128p), with siglum of a š. Third to second century b.c.

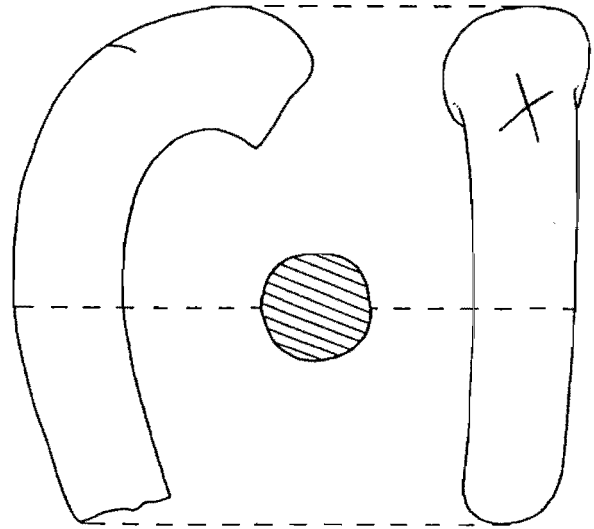
Fig. 3. Stem of an Etruscan black-gloss vessel from Cetamura (inv. A2960p), with siglum of Etruscan numeral 3. Third to second century b.c.



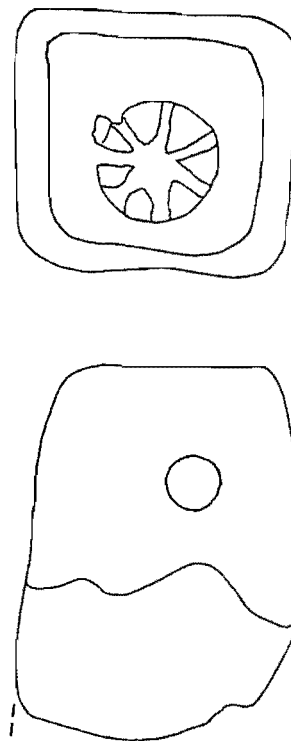
*Fig. 4. Base of an Etruscan black-gloss vessel from Cetamura (inv. A993p), with siglum of X. Third to second century b.c.*



*Fig. 6. Handle of an Etruscan vessel, possibly an amphora, made of local fabric, from Cetamura (inv. C-84-18), with siglum for the Etruscan numeral 12. Third to second century b.c.*



*Fig. 5. Handle of an Etruscan vessel, possibly an amphora, made of local fabric, from Cetamura (inv. C-83-190), with siglum of X. Third to second century b.c.*



*Fig. 7. Loomweight from Cetamura (inv. C-95-158), with stamp of the Etruscan numeral for 100. Hellenistic period.*

Ridgway are important for the attention they give to sigla within their archaeological context (in this case funerary).<sup>11</sup> The pottery from an Etruscan cellar at Casale Pian Roseto near Veii, published by Leslie Murray Threipland, is significant as a comprehensive study that reveals all the sigla found within one building of a habitation site (chronological range, late sixth century to early fourth century *b.c.*).<sup>12</sup> The *Corpus Inscriptionum Etruscarum*, especially in its more recent fascicles, provides publication of numerous sigla, both those unpublished and those previously published in the REE (see, for example, CIE, III, 1–2; the ones from Tarquinia and Orvieto are most numerous).

Also helpful for understanding Etruscan sigla are the studies made pertaining to other cultural and geographical areas, such as the excellent publication on Lydian inscriptions by Lynn Roller, *Nonverbal Graffiti, Dipinti and Stamps* (Gordion Special Studies, 1, 1987). Inescapable is the standard work on Greek trademarks by Alan Johnston, and there are useful studies on Greek numerals by Johnston and Marcus Tod.<sup>13</sup>

It is much to be regretted that Mabel Lang did not publish the short sigla from the Athenian Agora in her otherwise comprehensive “final report,” *Graffiti and Dip-*

inti, vol. XXI of the Agora series.<sup>14</sup> For the purposes of this study, one of the most significant works is the recent publication on Pithekoussai by David Ridgway and Giorgio Buchner,<sup>15</sup> in which are published the earliest Greek graffiti known in Italy, from the eighth century *b.c.* Some of the graffiti from this multicultural settlement are identical with ones known from Etruscan sites.

Also relevant are the markings on pottery in other, earlier cultures, especially from the Neolithic (eighth millennium *b.c.* and later), assembled by Marija Gimbutas in her pioneering study, *The Language of the Goddess* (1989). Denise Schmandt-Besserat’s research on the marked tokens that led to Sumerian writing of the fourth and third millennium *b.c.* provides interesting comparisons since the signs she identifies basically show a well-developed system of siglal writing that later evolved into a script that used words.<sup>16</sup>

### Theories about the Meanings of Sigla

It is generally admitted that Etruscan sigla cannot be accounted for by one comprehensive theory or explanation. In fact there are many categories of these inscriptions; some of these are easily recognized and are readily explained. We may list first those types of sigla that are understood in principle, if not down to specific details.

#### I. Abbreviations of Names

Abbreviations of the names of humans and of gods are found among the sigla. There is abundant evidence of the abbreviation of the praenomina of Etruscan men and

<sup>8</sup> Rix, I, p. 5, refers first to mason’s marks and trademarks: “Soweit dafür Symbole verwendet sind, die keinen alphabetischen Lautwert haben, sind die leicht zu erkennen und auszuscheiden.” He continues, “Problematischer ist der viel häufigere Fall, dass dafür einzelne Buchstaben oder Gruppen aus zwei (ganz selten drei) Buchstaben verwendet sind; diese Buchstaben können grundsätzlich auch Abkürzungen von Wörtern, also sprachlich Zeichen sein, gewöhnlich ohne dass sich eindeutige Kriterien für eine Entscheidung finden lassen. In der Praxis der Ausgabe ist hier so verfahren, dass Einzelbuchstaben grundsätzlich nicht aufgenommen sind und Buchstabepaaren nur dann, wenn sie ein bekanntes Wort oder eine Standardabkürzung, etwa die Sigle eines Praenomens darstellen.”

<sup>9</sup> REE 48, 1980, p. 333–356, on Spina, with references to earlier publications; REE 42, 1974, p. 230–257, *passim*, on Roselle; REE 55, 1978, p. 281–308, on Cetamura; REE 52, 1984, p. 295–307, *passim*, on Capua.

<sup>10</sup> Sassatelli, 1994, esp. 213–236; Sassatelli, 1981/82.

<sup>11</sup> Ridgway, *I corredi del Fondo Scataglini a Tarquinia*, 2 vols., 1996. Ridgway, and R. Linington, *Lo scavo nel Fondo Scataglini a Tarquinia*, 2 vols., 1997.

<sup>12</sup> M. Torelli and L. Murray Threipland, *A Semi-subterranean Etruscan Building in the Casale Pian Roseto (Veii) Area*, *Papers of the British School at Rome*, 38, 1970, p. 62–121.

<sup>13</sup> A. W. Johnston, *Trademarks on Greek Vases*, 1979. More recently, see his account, with special emphasis on material from Etruria, *Greek Vases in the Marketplace*, in *Looking at Greek Vases*, ed. T. Rasmussen and N. Spivey, 1991, p. 219–228. M. N. Tod, *The Alphabetic Numeral System in Attica*, *Annual of the British School at Athens* 49, 1950, 126–139, with references to earlier articles.

<sup>14</sup> Her attitude is unfortunately one found often in regard to sigla. Of the 3000 inscriptions she surveyed in the Agora, “At least one-third of these consist of one or two letters only, incised on the bottom of small vessels, perhaps as marks of ownership, or painted on the necks of unglazed amphoras, perhaps as some kind of commercial notation. The brevity of these texts allows so great a variety of interpretations that publication would serve no useful purpose; it is sufficient to note the large number of such curtailed abbreviations.”

<sup>15</sup> *Pithekoussai*, vol. 1, in *Monumenti Antichi*, 55, 1993.

<sup>16</sup> *Before Writing*, 2 vols., 1992.

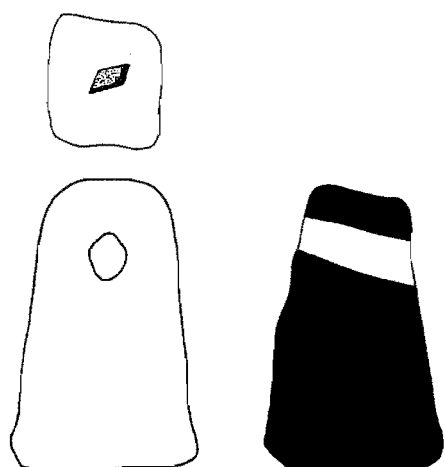


Fig. 8. Loomweight from Cetamura (inv. C-76-1697), with diamond stamp. Hellenistic period.

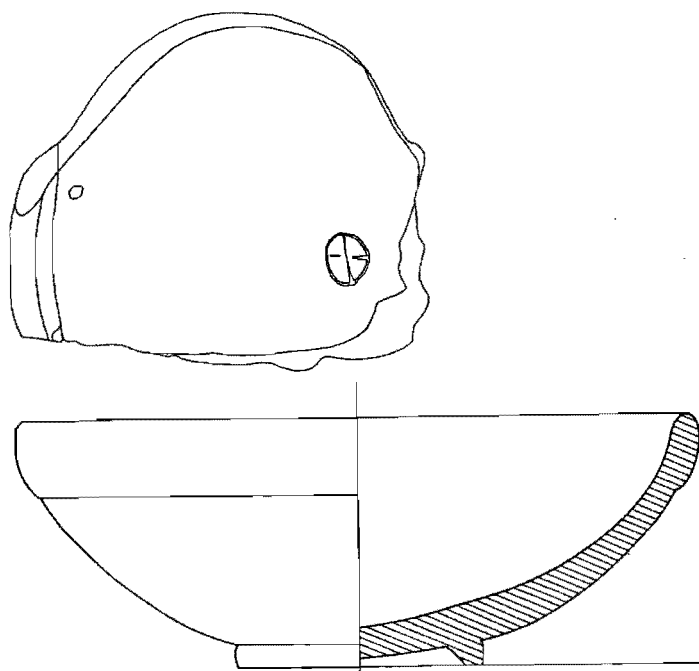


Fig. 9. Etruscan greyware bowl from Cetamura (inv. T828), with siglum for the Etruscan numeral 1000. Hellenistic period.

women: *a* for Arnθ, *c* for Cae, *v* for Vel, *h* for Hasti, *θ* for θana, *l* for Larθ, *m* for Marce, *r* for Ramθa, *s* for Sθre, *f* for Fasti. The same may be said for the two-letter sigla for names: *av* for Avle, *ar* and *aθ* for Arnθ, *ca* for Cae, *ve* for Vel, *ha* for Hasti, *la* for Larθ, *ra* for Ramθa, *sθ* for Sθre, *ti* for Tite, *fa* for Fasti. That these are indeed abbreviations for these common names is indicated by the fact that they occur in front of nomina or cognomina that are fully written out and clearly recognizable as names.<sup>17</sup> Unfortunately, unless we have the siglum thus combined with other names, we cannot be certain that it is indeed the abbreviation of a name. For example, there are literally hundreds of graffiti with the simple letter θ incised alone upon a vessel. Can we assert in all cases that it stands for Arnθ?<sup>18</sup>

A very good example of a dedication to a god with a two-letter siglum may be found on a vessel from Pyrgi that has the letters śu painted upon the foot; fuller inscriptions

from the area clearly refer to the god śuri, and suggest that these, too, were votive vessels for him.<sup>19</sup> On the Hellenistic liver from Piacenza we have several abbreviated names of gods with three characters: *neθ* must stand for Neθuns (=Neptune), and *mar* must stand for Maris, an Etruscan deity sometimes equated with Mars.<sup>20</sup> Unfortunately, most of the time, we do not have such a clear context for the interpretation of the sigla. At Hellenistic Cetamura, for example, we have examples with *ap* and a ligature with *apl* (or *alp*) inscribed on pottery coming from an artisans' zone (Fig. 11). Should we assume the god Aplu was worshipped nearby? Or possibly, instead, the goddess Alpanu? Without any evidence of cult on this site, we might be inclined instead to think that the letters stand for someone's name.<sup>21</sup>

<sup>17</sup> For listing of these abbreviations, both one- and two-character, see the index to Cristofani, *passim*. For examples of the usage of these in complete names, there are many included in Rix. The practice of abbreviating the praenomen was especially common, for example, in the Siena territory: Rix, p. 149–168.

<sup>18</sup> Cf. note 20 below, for examples where the singleton letter *a* may have another meaning.

<sup>19</sup> G. Colonna in REE 50 (1989/90), p. 314 (no. 23).

<sup>20</sup> On the liver of Piacenza, see L.B. van der Meer, *The Bronze Liver of Piacenza*, 1987, esp. p. 37–40 on Neθuns and 114–120 on Maris.

<sup>21</sup> See M. L. Robertson, in REE 55 (1987/88), p. 303–304 (no. 61, and no. 65, *ap*) and 296 and 304 (no. 44 and no. 63, *apl* or *alp*). Cetamura also has a number of inscriptions with the letter *a* alone, p. 281–282 (no. 5), 282 (no. 7), 297 (no. 47), etc. On Alpanu, see van der Meer, *The Bronze Liver of Piacenza*, cit. p. 30.



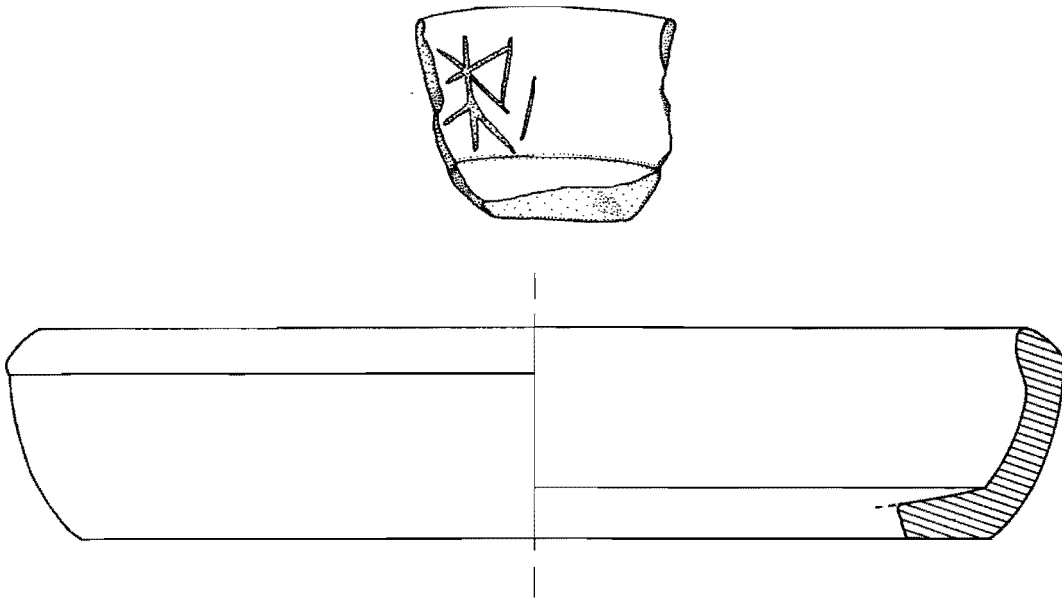


Fig. 10. Etruscan flat-bottomed cooking pan, from Cetamura (inv. T961), with siglum. Hellenistic period.

## 2. Numerals

There can be little doubt that many of the sigla contain numbers. The marks that are readily recognizable are virtually the same as those in Roman numerals; indeed Paul Keyser has demonstrated in a masterly way<sup>22</sup> that the Roman ones actually derive from the Etruscans, but that the numbers were reversed, so that they were written from left to right by the Romans, as opposed to the normal Etruscan practice. In the process the numbers were also written upside down from the point of view of an Etruscan. In the case of the number for 5, written as a V in Latin, the number was inverted from its original Etruscan form as Λ. The number for 50, made into L by the Romans, was originally an arrow-shaped *chi* in Etruscan, ↓. The number 100 was written as an asterisk with six points, 500 as a “D” shape, inverted, and 1000 in various forms, including a circle with a cross-mark within it, ⊗. The number 1 was a single vertical tally mark, which could be written in multiples to form 2, 3 and 4, and was attached to the numbers 5, 10 and 50 to denote numbers larger or smaller than each. Examples could be given from many sites. At Cetamura have been found graffiti with the numbers 3, 10, 12, and 1000 (Figs. 3–6, 9), as well as a loomweight with a stamp in the

form of 100 (Fig. 7). Sassatelli’s review of the corpus of inscriptions from Villanovan Bologna is interesting for the proportions of numerals within the body of material he has assembled. Out of 442 entries catalogued, he notes that about one hundred are the sign for 50, more than fifty are the sign for 10, and some twenty-five are the number for 5. Thus almost half of the material in this early chronological framework at Bologna is numerical.

Further, it is sometimes possible to confirm that these are numbers from the type of artifact upon which they are written. Several handles from storage vessels at Cetamura have numerals written upon them (Figs. 5–6), suggesting that there was an attempt here to record the capacity of the vessels. A similar phenomenon was noted at Marzabotto by E. Govi.<sup>23</sup> The fact that these graffiti were often incised before firing suggests that the artisans were attempting to mark the vessels so that the buyer at the market would be able to evaluate their size. Further, the loomweight with the number 100 may reveal an intention to note the weight of the object. In this case it is not possible to inquire more closely what that number means, because the loomweight is not completely preserved. A certain confusion and frustration is created, too, by the fact that many different marks occur on loomweights of approxi-

<sup>22</sup> P. Keyser, *The Origin of the Latin Numerals 1 to 1000*, *American Journal of Archaeology* 92, 1988, p. 529–546.

<sup>23</sup> Govi in Sassatelli, 1994, p. 214.

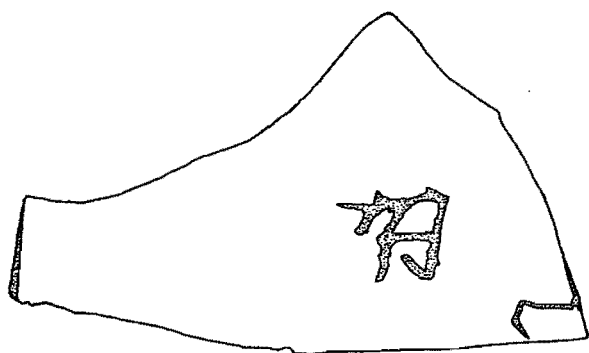


Fig. 11. Fragment of unidentified black-gloss vessel from Cetamura (inv. 154p) with siglum. Third to second century b.c.

mately the same size at Cetamura. Some weights have a stamp that does not have numerals (e.g., a diamond, Fig. 8, or an oval shape) or else are totally lacking in sigla of any kind.

Thus with numerals, as with abbreviations of names, it seems evident that these may be conclusively identified in some sigla. To take the interpretation further is often quite difficult.

### 3. Alphabets

Pandolfini has recently made a survey of inscriptions containing the Etruscan alphabet, and with additions by Sassatelli, the total recorded comes to 73 or more.<sup>24</sup> It is only the very short alphabet inscriptions, however, that raise a question about sigla identity. The longer inscriptions are quite easily recognized as alphabets (e.g., those on the well-known ivory tablet from Marsiliana d'Albegna, with 26 characters, and on the bucchero rooster in the Metropolitan Museum of Art, also with 26).<sup>25</sup> But when only two or three characters are given, there may be some doubt that these are in fact alphabets. The combinations that occur are as follows (range of dates, ca. 600-ca.200 b.c.): *a c* (11 examples known), *a e* (9 examples), *a e v* (4 examples), *a e x* (1 example) and *a x* (3 or more examples).

<sup>24</sup> Pandolfini, p. 3-89. Sassatelli, 1994, p. 209. Pandolfini did not include the possible short alphabets included in Sassatelli, 1981/82, p. 252; these would raise the number above 73. Cf. also the discussion by Sassatelli, *Il bucchero e le ceramiche affini come supporto per iscrizioni e graffiti in area padana*, in *Produzione artigianale ed esportazione nel mondo antico, il bucchero etrusco*, ed. M. Bonghi Jovino, 1993, p. 201-202.

<sup>25</sup> Pandolfini, p. 19-21, 22-23.

It is only upon seeing that they occur with some regularity in these combinations that we realize they are the equivalent of our expressions "ABC" and "A-to-Z." (Lang noted similar alphabets from the Athenian Agora, with ABΓ.<sup>26</sup>)

### 4. Craftsmen's Guides

Quite a large body of research shows the usage of sigla on objects and buildings as guides to craftsmen.

Mason's marks on individual blocks of stone such as those at fourth-century Etruscan Bolsena are well known; they occur in a large building on the acropolis of Tarquinii, as well as on buildings in Rome, and there are comparanda on walls in Southern Italy and Sicily.<sup>27</sup> They show great variety, with some resembling letters or numerals, and others appearing as rectilinear designs or symbols that lent themselves well to incision in stone. Since such marks also occur in the stone quarries themselves, it is believed that they may have been used to signal which stones were to be cut and to track the amount of work completed by individual masons.

Etruscan workers in terracotta and tile used sigla to indicate a sequence of assemblage. Best known are the examples from the Portonaccio temple at Veii,<sup>28</sup> numbers and letters, always in groups of two or more signs, painted on the architectural terracottas to indicate their placement on the walls and roof of the building. It is noteworthy that these are written from left to right. Along with these may be listed the numbered architectural terracottas from Pyrgi, and those with letters from the newly discovered sanctuary at I Fucoli (Chianciano Terme; dated to the second century b.c.).<sup>29</sup> Perhaps most interesting of all are the terracotta sarcophagi from Tuscania recently studied by M.D. Gentili, which show the use of sigla to ensure that

<sup>26</sup> Graffiti and Dipinti, 1976, p. 7.

<sup>27</sup> Bolsena: R. Bloch, *Volsinies étrusque et romaine*, MEFRA 62, p. 67-68. P. Romanelli, *Tarquini, Scavi e ricerche nell'arca della città*, *Notizie degli Scavi*, 1948, p. 230. For numerous comparative examples from Rome, Southern Italy and Sicily, see G. Säflund, *Le mura di Roma Repubblicana*, 1932, p. 104-114, and idem, "Unverhöffentliche antike Steinmetzzeichen und Monogramme aus Unteritalien und Sizilien," in *Scritti in onore di B. Nogara*, 1937, p. 409-420, as well as L. Lazzarini, *Marche di cava delle mura serviane*, in *Roma medio repubblicana*, 1973, p. 12-14.

<sup>28</sup> G. De Vita De Angelis, *Contrassegni alfabetici e di altro tipo su elementi del rivestimento fittile del tempio di Apollo a Portonaccio*, *Studi Etruschi* 36, 1968, 403-449.

the proper parts of each lid and chest were fitted together.<sup>30</sup> From the tomb of the Treptie at Pian di Mola, Tuscania, come five sarcophagi, dating from the end of the third century *b.c.*, which show the use of the Etruscan numerals 1 through 5 to sort out a batch of sarcophagi made at the same time in one workshop. Each lid was molded in two joining parts, and the artisans incised matching numerals on each part to show that they belonged together. Gentili noted this practice in evidence for at least two other tombs in the orbit of Tuscania, with the numbers for 7 and 10 also attested.<sup>31</sup>

Terracotta pan tiles and cover tiles from the Archaic site at Poggio Civitate, Murlo, present interesting marks incised on the upper surface.<sup>32</sup> Some sixty examples have been published, showing the following individual letters, sometimes clearly written from left to right: *a, v, θ, l, p* (?), *s* (?), *r* (?), *t* (?), *φ, χ*. Several sigla are not alphabetic, including a spiral, and a triangle with a line through it. While it is generally agreed that the markings should be studied in comparison with other marked terracottas, the precise function of those at Poggio Civitate remains uncertain. Very likely they were used in assembling a roof, as were the sigla on temple terracottas from Veii and Tarquinii, but exactly how they were pieced together is unknown. Marked roof tiles occur at other sites as well, such as La Piana, Poggio La Croce (Radda in Chianti) and I Fucoli.<sup>33</sup> Other examples of artisans using sigla to guide them in assembling parts may be cited: bucchero chalices with caryatids from Cerveteri, plaques of ivory and bone

used as facing on wooden boxes, and bronze candelabras from Spina.<sup>34</sup>

These, then, are the usages of sigla that have been identified, and that are at least partially understood. A good many of the markings can be related to one or the other of the categories. But it must be admitted that there are still thousands of sigla, in fact the great majority, that are still in need of explication.

## The Database

In order to analyze these sigla, there is a need to compile extensive comparative data. The base that we designed is meant to assemble information that will allow one to look at sigla from many points of view, and from a body of data not brought together before, ask and answer new questions. The categories eventually evolved in a slow (and still rudimentary) process are as follows:

1. Siglum.
2. Site where found, with inv. no.
3. Locality (if appropriate).
4. Site type.
5. Siglum type (letter, number, symbol, ligature, or unclassified).
6. The artifact type or architectural element.
7. (for pottery only) Pot shape.
8. (for pottery only) Pot decoration.
9. (for pottery only) Pot fabric.
10. Location of siglum on the artifact.
11. Other writing associated with the siglum (if any).
12. Method of marking (incision, before or after firing; painting; stamp).
13. Number of characters in siglum.
14. Orientation of writing and other relevant observations (right to left, left to right; in circle, etc.).
15. Usage of the object upon which the siglum is located.<sup>35</sup>
16. Date, by century.
17. Period.

<sup>29</sup> F. Melis, *La numerazione degli elementi del rivestimento fitile*, NSc, 1970, Suppl. 2, vol. 1, 411–414. G. Paolucci, ed., Museo Civico delle Acque, Siena, 1997, p. 61–72. A. Rastrelli, *La decorazione fitile dell'edificio sacro in loc. I Fucoli presso Chianciano Terme*, Ostraka, II, 2, 1993.

<sup>30</sup> M.D. Gentili, *I sarcofagi etruschi in terracotta di età recente*, 1994, p. 44–47, 162.

<sup>31</sup> *Idem*, p. 162. There are two more examples to add to the list, observed by the FSU team. In the Museo Nazionale at Tarquinia, inv. no. 1379 (Gentili, p. 79) features incised sigla on both the chest as well as the lid (those on the chest are mirror-image digammas), and inv. no. 9800 (Gentili, p. 79) has sigla on the lid, utilizing a character that looks like our letter R rotated 90 degrees so that the straight line is horizontal at the top of the siglum. Again, the sigla are in mirror image of each other.

<sup>32</sup> K.M. Phillips and M. Cristofani, *Poggio Civitate: Etruscan Letters and Chronological Observations*, Studi Etruschi 39, 1971, p. 3–22; *Case e palazzi d'Etruria*, 1985, p. 100–102.

<sup>33</sup> La Piana: pan tile with an X (inv. 93–14 #492; information from Jane Whitehead); Radda, cover tile with a (information provided by the excavator, Marzio Cresci); I Fucoli, cover tile for ridge beam with the letter chi: G. Paolucci, ed., Museo Civico delle Acque, Siena, 1997, p. 72.

<sup>34</sup> G. Colonna, *Il sistema alfabetico*, in *L'Etrusco Arcaico, Atti del Colloquio*, Florence, 1974, p. 20; M. Martelli, *Gli avori tardo-archaici: botteghe e aree di diffusione*, in *Il Commercio Etrusco Arcaico, Atti dell'Incontro di Studio*, Rome, 1983, p. 228, fig. 60; E. Hostetter, *Bronzes from Spina*, Mainz, 1986, vol. I, p. 163–164.

18. Comments.
19. Bibliography (source of record and other relevant bibl.)

In addition to the written record, it was important to secure a photographic record of the object upon which the siglum was written, and a drawing of the object with the siglum clearly indicated. If the object was pottery, we sought standard drawings of the cross section and other details.

Obviously with these data assembled for a significant body of specimens, numerous meaningful questions could be asked. Here are some examples: What are the names of the sites of Etruria where sigla have been found? How many (total) have been found at (for example) the site of Tarquinii? As compared with (for example) the site of Veii? What are the proportions of sigla at the three major types of sites: habitation, funerary, and sanctuary? What are all the sites where the siglum *a* (for example) has been found? What other characters are found written with the letter *a*? How early does the siglum *a* appear? How late? What kind of objects does it appear upon, and where? What inscription or other siglum is associated with it? Of course, the principal question, at the end, asks what all of this information can tell us about the meaning of the siglum or a group of sigla.

We reviewed approximately 2000 specimens, but unfortunately the data we assembled was quite uneven. The greatest problem is that many sites have reported very few specimens; on the other hand, Marzabotto and Spina, for example, and a few other sites have received extensive documentation. There are distortions in chronology, as well. The statistics for Bologna, with heavy reporting for the Villanovan period, have created a strange chronological pattern for some sigla. (See especially the entry on the siglum X, below). In some cases, the vases with sigla are Greek imports, and it is not always clear whether the characters are Greek or Etruscan. Further, many reports do not have all the information asked for the database, and thus there are gaps in the answers, or the answers are skewed. Reports of whether the siglum was incised before

or after firing, for example, were quite uneven. The two sample entries presented here, therefore, are only meant to give an idea of the possibilities of the siglum project. There is clearly a need for increased and improved reporting, with which entries such as these could be made more meaningful. We gave some consideration to plans for future studies, and concluded that it would also be worthwhile to do specific studies of *types* of pottery (e.g. amphorae) or artifacts (e.g., loomweights) and attempt to determine which patterns are specific to such categories of objects.

In each entry below, we have presented at the end the tables for site, context, artifact types, location of siglum, character combination and dating by century. The tabulation is summarized and commented upon in a narrative section preceding the tables.

## The Case Studies

*SIGLUM: ś (written in Etruscan as M) by Amy Meilleur*

Of 68 examples of the *ś* in the database, 40 were reported with assigned dates (Table 7). The earliest date reported is the seventh century *b.c.* and the latest the first century *b.c.* The letter form, the Greek four-bar sigma, occurs on an inscription from Pithekoussai of the late eighth century *b.c.* M. Cristofani (*Archeologia Classica*, 25, 1973, p. 155–156) notes with approval the suggestion of M. Guarducci that the four-bar sigma in Italy derived from a Chalcidian source.

The character has been found at a number of sites in Etruria proper and outside, from Spina in Northern Italy to Nola in Campania (Table 1). The largest concentrations are reported from the major trade sites of Spina and Tarquinia. At least 6 of the examples reported from Spina are on Attic pottery. For 45 of the specimens a particular context is not reported, but the majority with reported find spots come from tombs (Table 2). There are considerably more examples of this siglum on pottery than on other objects (Table 3). The range includes vessels for cooking, eating, drinking, pouring and storing. Bowls (for eating) are the most numerous category (for a specimen from Cetamura, see Fig. 2). The siglum occurs as a single character on loomweights and spools and on bronze axes. In all cases in which it occurs in combination with other letters, the support is pottery. In most cases where infor-

<sup>35</sup> We devised a list of activities that might be associated with the siglum. Some of these are (in alphabetical order): adorn, cook, cover, cut, drink, eat, grind, kill, pour, shave, spin, store, transport, weave, weigh. Other usages could be added. Obviously these categories apply better to objects than to architectural elements.

mation is recorded, the mark was incised after manufacture. On loomweights and some spools it was incised before firing. On most pottery where location of siglum was reported, it was on the exterior (Table 4).

Several amphoras are of particular interest for having the *ś* marked upon them. These are as follows: 1. Incised after firing on the neck of a Greco-Italic specimen, from a partially plundered but wealthy family tomb at Tarquinia, fourth to second century *b.c.* (CIE 10123; Ridgway, *I corredi del Fondo Scataglini*, 1996, I, p. 63, II, pl. 131, no 82.); 2. Incised before firing on the neck of an amphora of Corinthian type A from Marzabotto, late sixth to early fifth century *b.c.* (Sassatelli, 1994, p. 89); 3. On an amphora from the Ager Capena (no further data; CIE 8517). In all cases the *ś* is a singleton. Comparative examples have been found at Gordion, on amphoras of the fourth to third centuries *b.c.*, from three different areas of production: Samian, Thasian and Lydian; two occur on the neck and one on the shoulder of the vessel. Roller suggests (p. 57–59, nos. 3A–II, 13 and 15) that the character is a trademark. Further information is provided by an imported Attic bowl found at Spina in which the siglum occurs as part of a ligature, hypothesized to have some commercial meaning (SE, 48, 1980, 334). Possibly the four-bar sigma was an internationally understood indicator of contents.

Apart from these vessels, the patterns of data associated with the *ś* do not suggest a particular meaning of the siglum. Since it occurs frequently in burials, there is the possibility that it is an abbreviation for the word *śuθina*, “for the tomb,” but this remains a mere conjecture. The combinations of the *ś* with other letters are for the most part not suggestive. The combination *śp* could be related to the word for city, *śpur*; the abbreviation *śp* (= *śpural*) occurs on a boundary stone from Fiesole (Rix, Fe 8.4). Bocci-Pacini conjectured that a *ś* on a black-gloss pyxis from Rusellae (second half of second-century–first half of first-century *b.c.*) stood for the name *Śeθre*. As noted above, *śu* at Pyrgi refers to the god *Śuvi* (note 20 and text).

Spina	13
Tarquinii	10
Bologna	9
Rusellae	6
Marzabotto	4
Ager Faliscus	2
Ager Volsiniensis	2
Unknown	6
Ager Capena	1
Ager Clusinus	1
Ager Volaterranus	1
Castelletto Ticino	1
Cetamura	1
Gravisciae	1
Nola	1
Norchia	1
Populonia	1
Pyrgi	1
San Giovenale	1
Suana	1
Veii	1
Volaterrae	1
Volcii	1
Volsinii	1

Table 1: Sites

Funerary	19
Habitation	3
Sanctuary	2
Unknown	44

Table 2: Context

Pottery	53
Bowl	18
Plate	8
Cup	6
Vase	5
Amphora	3
Chalice	2
Kylix	2
Lid	2
Oinochoe	2
Tumbler	2
Baking Pan	1
Pelike	1
Pot	1
Loom Weight	2
Spool	3
Bronze	4
Axe	3
Unknown	1
Quarry	1
Jewelry	5
Fibula	5

Table 3: Types of Artifacts

Exterior	53
Interior	8
Unknown	7

Table 4: Ext. vs. Int. on Pottery

ś by itself	45
ś + 1 Character	16
ś + 2 Characters	7

Table 5: Alone or in Combination with Other Characters

śe	3
śo	2
śp	2
śu	1
śv	1
ś↓	1
aś	3
vś	1
xś	2
nuś	1
ppś	1
śka	2
śü	1
śin	1
uśn	1

Table 6: Combinations

7th	10
6th	8
6th-5th	2
6th-3rd	1
5th	8
4th	1
3rd	7
3rd-2nd	2
2nd-1st	1
1st	1

Table 7: Dating by Century

*SIGLUM: X by Ceil Bare*

The siglum X is one of the most frequently occurring of all Etruscan characters. An unusually high number of 178 examples were found in the ca. 2000 sigla surveyed for the database; 163 were reported with assigned dates (Table 14). The earliest noted date is the seventh century *b.c.*, but these Etruscan sigla are predated in Italy by 7 specimens on Greek amphoras from Pithekoussai of the Late Geometric period (D. Ridgway, G. Buchner, Pithekoussai, 1993, nos. 316, 339, 351, 393, 440, 475, 503). A strongly disproportionate cast to the Etruscan chronology is created by the fact that some 65 of the total reported come from a survey of Villanovan Bologna. The latest date reported is the first century *b.c.* In point of fact, the X siglum continued into the Roman Empire, as may be seen, for example, in the study by J. Evans, *Graffiti and the Evidence for Literacy and Pottery Use in Roman Britain*, *Archaeological Journal*, 144, 1987, p. 201. (In this period, too, the X continued to be one of the most common sigla.)

The Etruscans used the X widely in their territory (Table 8); reported examples from Tarquinii are numerous along with those from Bologna. A very large proportion of the find spots reported were funerary (Table 9). Among the objects represented in the chart (Table 10) are "female" objects such as loomweights and spools, as well as tiles, fibulas, and various "male" objects (numerous axes—again from Bologna, a knife, a razor, a sickle). Pottery represents a very large proportion of the objects on which the character is written (some 73%), with most appearing on cups and bowls. It is normally located on the exterior of the vessels (Table 11). More than half the time it is placed on the bottom of the vessel as opposed to the top or wall. Often the mark is quite hastily and sloppily scratched onto the support, after firing.

The last-mentioned circumstance makes it unlikely that the mark was placed by an artisan. It seems much more believable that an owner placed the mark, but the X is so common that it is not likely that the siglum refers to that individual personally. The best hypothesis is that the mark is the Etruscan number for 10, well attested from an early date. In the combinations collected for this study (Table 13), the X was regularly utilized with other recognizable numbers. Further, in the semi-subterranean building at Casale Pian Roseto (Veii), the 7 X sigla take their place with a number of other numeral markings in this

context. At Bologna, almost half of the sigla reported, including the examples of X, were numerical.

But it is by no means easy to explain why so many objects would be marked with the number 10. A few specimens do seem to have a meaning for trade: 6 amphorae, each with a single X incised on the exterior, were found at the sites of Spina, Populonia, Cetamura, Marzabotto and Bologna. In 3 cases the X is on the shoulder and in 2 cases the X is on top of the handles. But the remaining objects are mainly of a personal nature. It could be that the mark was made mainly by individuals who were basically illiterate, but knew how to make this simple sign, perhaps as a way of claiming the object, even with a certain ritual intent. The database includes some 12 paterae, mainly from tombs, that could have been marked with the number 10 for ritual reasons (for 10 prayers?).

Otherwise, the sign may have been no more than a routine mark to bring good luck (10 times over).

Bologna	65
Tarquinii	27
Marzabotto	19
Cetamura	13
Spina	10
Veii	9
Rusellae	7
La Piana	7
Villanova	5
Tuder	3
San Giovenale	3
Unknown	3
Caere	2
Ager Volaterranus	1
Bisenzio	1
Civitella S. Paolo	1
Capua, Monterozzi	1
Perusia	1
Populonia	1
Volsinii	1

Table 8: Sites

Funerary	66
Habitation	25
Sanctuary	0
Unknown	87

*Table 9: Context*

Pottery	131
Cup	31
Bowl	25
Patera	12
Plate	12
Unknown	7
Amphora	6
Vase	6
Dish	4
Tumbler	4
Jug	4
Pot	4
Skyphos	2
Pitcher	2
Kantharos	2
Pyxis	1
Goblet	1
Kyathos	1
Olpe	1
Lid-Ossuary	1
Lid	1
Urn-Biconical	1
Small dolio	1
Loom Weight	1
Spool	3
Bronze	32
Axe	25
Unknown	2
Knife	1
Razor	1
Sickle	1
Tile	1
Quarry	1
Jewelry	5
Fibula	5
Unknown	5

*Table 10: Types of Artifacts*

Exterior	91
Interior	24
Unknown	63

*Table 11: Ext. vs. Int. on Pottery*

X by itself	148
X + 1 character	15
X + 2 characters	4

*Table 12: Alone or in Combination with Other Characters*

XX	4
↑X	2
IX	2
X<	1
XV	1
sX	1
XI	1
X theta	1
Xh	1
Xe	1
XXII	1
DXII	1
XDP	1
-XL	1

*Table 13: Combinations*

7th	72
7th-6th	1
6th	26
6th-5th	1
6th-4th	8
5th	22
5th-3rd	1
4th	5
4th-3rd	1
4th-1st	1
3rd	17
3rd-2nd	3
3rd-1st	12

*Table 14: Dating by Century*