D.13.  **Inscriptions on Lead Pipes**

BY Christer Bruun

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D.13.1.  **Epigraphical and Historical Commentary**

There have been notices of water conduits at or near the site of the villa at Licenza for over two centuries. As early as 1761, Domenico De Sanctis, a lawyer and antiquarian from nearby Tivoli, mentioned “some traces of a small conduit that carried the waters of the spring to the villa.”¹ The material of that conduit is not known, but it was quite likely of lead. There are other reports of inscribed lead pipes having been found on the site during the eighteenth and nineteenth centuries, but they have long since disappeared and will therefore not be treated in this paper.²

Lead pipes, to be sure, were discovered during the excavations of 1911-1914, but although they were published by Lugli in 1926,³ the stamps they carry have remained practically unknown to the scholarly world. The texts are indeed valuable, as one stamp gives the name of a one-time owner of the villa, yet these sources have suffered complete neglect ever since Lugli’s publication.⁴ Together with more spectacular archaeological material from the excavation site, the lead pipes were carried up to the little town of Licenza and placed in the old antiquarium situated in the medieval Rocca degli Orsini.⁵

In the present museum in Licenza, a handful of well-exhibited fistulae can still be studied today. None is complete (a single unit of pipe was often ten Roman feet,⁶ about three meters, in length), and some have been reduced to fragments. Two inscriptions can nevertheless be read without difficulty: one reads C. Iulius Priscus f(ecit); the other P. Ostili Firmini. For the technical details, see De Simone, D.1.3.2.

The pipes carrying these stamps were, according to Lugli, not found together; however, there are some inaccuracies in his description.⁷ Nevertheless, the sizes of the fistulae make it possible that the pipes belong to the same manufacturing process. If this is so, we have one name in the nominative and one in the genitive on the same conduit and we are surely dealing with a manufacturer of pipes (a plumbarius) called C. Iulius Priscus, and with one P. (H)ostilius Firminus, who must have been the customer commissioning the work. That the latter was a sometime owner of the villa is, however, to be assumed even if the pipes did not belong together.⁸

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¹. De Sanctis, 43.

². The stamps are Ti. Claudi Burri (CIL XV.7897a) and -[M Burrus]- (CIL XV.7897b), also mentioned by Lugli 1926, col. 583. It is known that the inscriptions were destroyed by the priest of Licenza in the 1770s, who used them for birdshot; see Frischer and Brown, 133 n*, with 155 n38. See also Mazzoleni, 194 n2: “in Licenza presso Vincenzo Onorati si conserva ancora un frammento di tubo di piombo che fu trovato innestato a questa abitazione.”

³. For the official edition of the stamps, see Lugli 1926, cols. 581-583. See also Lugli 1930, 49, on the excavation campaigns, and 66, on the stamped lead pipes and a lead sheet in the old antiquarium at Licenza.

⁴. There is, e.g., no reference to the fistula stamp in PIR² H 225 (Hostilius Firminus), nor in RE. The stamps are naturally absent from CIL XIV and XV (published before 1911), from Inscriptiones Italiae IV.1 Tibur (Rome 1952), and have never been cited in L’Année Epigraphique. The area of Licenza was not included in C. F. Giuliani, Tibur. Pars Altera. Forma Italicae I.3 (Rome 1966).

⁵. Lugli 1930, 66, on the inscribed lead objects from the villa now in the museum.


⁷. Lugli 1926, col. 581, writes that the stamp P. Ostili Firmini was found on a pipe emptying from the room O (=room 34) into the sewer m (=h-i), while the stamp C. Iulius Priscus f. was found on a conduit some 40 meters to the south, leading into the sewer r (=p2) from the “fishtank” T (=room 53). But both stamps were found in two exemplars, as can be seen in the museum at Licenza, and Lugli does not give information on the find-spots of the other stamps.

⁸. The interpretation of the genitive on fistula stamps has in the recent past caused some discussion; see Bruun 1991, 81-95, and more recently C. Bruun, “A City of Temples and Squares, Emperors, Horses, and Houses,” Journal of Roman Archaeology 10 (1997) 397f. and C. Bruun, “Senatorial Owners of
The name C. Iulius Priscus is of little help for dating and identification purposes. No plumbarius by that name is known from other sources. Moreover, C. Iulius Priscus is a very common name; in Rome alone, at least nine C. Iulius Prisci and two Iulii Prisci (without a praenomen, although they could in principle have been called Gaius, too) are known from inscriptions. Nothing indicates that we might be dealing with any of these persons, although it cannot be excluded.

The tria nomina C. Iulius Priscus also occurs among members of the senatorial and equestrian orders, but in these cases an identification is impossible.

The situation is rather more rewarding regarding P. Hostilius Firminus. A senator called Hostilius Firminus is known from the correspondence of Pliny the Younger. In 100 A.D., the Roman Senate gave a verdict in a case of extortion of provincials involving the proconsul of Africa, Marius Priscus. Priscus was condemned and the Senate proceeded to deal with the legatus proconsulis Africae, Hostilius no. 14. Until the discovery at Licenza, this man was the only known bearer of the name combination Hostilius Firminus. It is therefore very tempting to identify the onetime legatus in the province of Africa with the man from Licenza. Indeed one could claim that there is a good chance that this identification is correct, were it not for the fact that homonymity, the use of identical names, was common in the Roman aristocracy. We do not know the praenomen of the Hostilius Firminus mentioned by Pliny, and he may not have been called P(ublius). It is therefore prudent to remember that at Licenza we might be dealing with a close relative, such as the father, a brother, son or even cousin of Hostilius Firminus the legatus.

In any case, the existence of a Roman praetor named Hostilius Firminus in 100 A.D., and the lead pipe stamped P. Ostili Firmini, establish firm ground for suggesting that at some point around 100 A.D. (perhaps roughly 75-125 A.D.), the owner of the villa at Licenza was named P. Hostilius Firminus, and that he was a member of the senatorial order.

A name is thus attested for an owner of the so-called Villa of Horace. It is not Horace’s name, but this

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What?,” Journal of Roman Archaeology 13 (2000) 502-506. In a clear-cut case such as this, I see no reason to doubt that the genitive indicates the owner of the pipe, although I continue to think that there are instances where the genitive can have a different meaning. For other fistula stamps omitting the initial H, see, e.g., CIL XV.7467: <H>ateri Latroniani.

10. See the name index in CIL VI.6.1. In Inscriptiones Italicae IV.1 Tibur, the name Iulius Priscus does not occur.
11. See PIR² I 487 (a centurio under the emperor Vitellius); I 488 (a praefectus praetorio in 242/43 A.D.); I 489 (a senator under the emperor Decius).
12. RE VIII.2 (1913) 2506, s.v. Hostilius no. 14 (Kadlec); PIR² H 225.

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only thing we hear about Hostilius Firminus is that he was found guilty of extortion and made to forfeit his eligibility to govern a province.

The fistulae from Licenza may now shed welcome new light on the vicissitudes of Hostilius Firminus, the corrupt legatus. Until the discovery at Licenza, this man was the only known bearer of the name combination Hostilius Firminus. It is therefore very tempting to identify the onetime legatus in the province of Africa with the man from Licenza. Indeed one could claim that there is a good chance that this identification is correct, were it not for the fact that homonymity, the use of identical names, was common in the Roman aristocracy. We do not know the praenomen of the Hostilius Firminus mentioned by Pliny, and he may not have been called P(ublius). It is therefore prudent to remember that at Licenza we might be dealing with a close relative, such as the father, a brother, son or even cousin of Hostilius Firminus the legatus.

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a legatus proconsulis Africae, Hostilius Firminus would have been a former praetor.

15. In CIL VI there are altogether some 55 male Hostilii from Rome, but the name is not very common in the higher ranks of society. PIR² H 224-227 registers four Hostilii belonging to the senatorial and equestrian orders during the first three centuries A.D., including our Firminus. No Hostilii Firmini are mentioned in Epigraphia et ordine senatorio I-II (Rome 1982), which registers prominent Hostilii both of the Republican and imperial period; cf. G. Alföldy, “Städte, Eliten und Gesellschaft in der Gallia Cisalpina,” Heidelberger Althistorische Beiträge und Epigraphische Studien 30 (1999) 301 and 340, on the impossibility of determining Hostilius Firminus’ geographical origin.

16. Cf. also Rudich, E.2, who, accepting Frischer’s identification of Ti. Claudius Burrus whose name
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does not mean that the traditional identification is wrong. The lead pipe belongs to a period about a century after Horace’s death, and real property could change hands as frequently in the Roman world as it does today. The only thing that needs explaining, if one wants to maintain that the villa at Licenza was Horace’s, is how a farm that had passed into the emperor Augustus’ ownership had been returned to a private owner (see Rudich, E.2). There is, however, nothing strange about this, for we have information that emperors from Claudius onward did give up imperial property. The sources mention the returning of property that had been acquired from condemned persons, but conceivably property acquired in other ways could be disposed of as well. Indeed, the emperor Trajan took to selling off imperial property, some of which had fallen into disuse.\(^{18}\)

One might even imagine that it was under Trajan that Hostilius Firminus had acquired the villa and that one of the first actions of the new owner was to install proper plumbing.\(^ {19}\)

A third lead pipe stamp was discovered in the early twentieth-century excavations and presented by Lugli as *Caesernius Lucernio fec.*\(^ {20}\) Its present whereabouts are unknown. Lugli described the circumstances of the find in the following way: “A large sheet of lead that bears the inscription of a certain *Caesernius Lucernio* was discovered in a bad state of preservation near the calidarium and was probably used as a division of some tank or cistern.”\(^ {21}\) The find-spot was near the sewer labelled “I”, about one meter below the level of what Lugli calls the calidarium (rooms S1-3= rooms 44, 47, and 48).\(^ {22}\)

The name Caesernius Lucernio is not known from any other source.\(^ {23}\) There was an aristocratic family of Caesernii that originated from Aquileia, but there is no reason to assume a connection.\(^ {24}\) About

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17. That this happened is always maintained on the basis of Suetonius’ short biography of Horace, in which it is stated that a sudden illness prevented Horace from drawing up a proper testament. He was barely able to name Augustus as his heir orally: *herede Augusto palam nuncupato, cum urgete vi valetudinis non sufficeret ad obsignandas testamenti tabulas* (Suet. *Vita Hor.*, p. 48 lines 6-8 [ed. Reiffenscheid 1860]. See also A. Rostagni, *Suetonio ‘De Poetis’ e Biografi Minori* (Turin 1944, reprinted 1979) 123 with commentary; G. Brugnoli, *Suetonio. Vita di Orazio* (Rome 1967) 22.


19. Even if the fortunes of Hostilius Firminus had suffered decline, this does not mean that his son or other relatives would have been impoverished as well. Note that a wealthy North African named Flavius Marcianus, who was also involved the same scandal as Hostilius, was condemned to exile from Rome, from Italy, and from the province of Africa (Plin. *Epist.* 2.11.19-22). It is normally assumed that the imperial procurator Flavius Marcianus Ilius was his descendant, perhaps even his son; see *PIR*² F 316 and Bruun 1991, 225f.


22. Lugli 1926, col. 581; for the plan of the excavations to which he refers, see his Tav. III.

23. The *cognomen* Lucernio is not completely unknown, however, for it appears six times in Kajanto’s collection of Latin *cognomina*; see I. Kajanto, *The Latin Cognomina* (Helsinki 1965) 343. There is no Caesernius among these: one comes from the province of Baetica, another from *Pannonia Superior*, and four appear in Christian (i.e. late antique) inscriptions. In view of these findings, it is somewhat surprising to find someone called Lucernio in Licenza during the first or second century A.D.

24. Only two prominent Caesernii are known from from the first century A.D., namely the senator Caesernius Veiento, praetorian proconsul of Crete and Cyrene in the mid-forties A.D. (not in *PIR*²), and the equestrian T. Caesernius Statius Quinctius Macedo (*PIR*² C 181), who had two sons. They became senators during the first half of the second century A.D. The consular sons are T. Caesernius T. f. Pal. Statius Quinctius Macedo Quinctianus (*PIR*² C 182) and T. Caesernius T. f. Pal. Statius Quinctius Statianus Memmius Macrinus (*PIR*² C 182).
a hundred Caesernii of lesser status are known from inscriptions, especially in northern Italy and the northern Balkans (13 are from Rome, however), but there is no Caesernius Lucernio among them.25

D.13.2. Technical Information

D.13.2.1. Inscribed lead pipes in the museum at Licenza26

The fistulae were manufactured according to the usual method; molten lead was poured out onto an even surface to form sheets, which were then bent to form a tube, pear- or drop-shaped in circumference.27 More lead was poured over the joint where the two ends of the lead sheet met to form a seam in the form of a “bridge,” ca. 2.5 cm wide and 1.0 cm high, running along what was to be the upper part of the fistula when properly laid.28

The pipes have been squeezed by the pressure of the earth in which they were laid to the point that it is difficult to ascertain the interior diameter. The inscriptions were all applied just beneath the seam, with the text to be read from the side, i.e., the tops of the letters are next to the seam.

The fistulae in the museum at Licenza are exhibited in four rows, and are here presented in the same order, beginning from the top (fig. 1).

1. inv. no. 00403243

C IVIVS PRISCVS F

C. Iulius Priscus (ecit)

Length of the lead pipe, broken at both ends: 50 cm

Length of the inscription, with the letters in relief and no borders along the area carrying the inscription: 22 cm

Height of the letters: 2.2-2.3 cm

Minimum and maximum internal diameter:29

4.8 cm x 8.5 cm

Internal circumference: 22 cm

2. inv. no. 09(?)-403243 (the reading is not certain)

P OSTILI FIR[-]

P. <H>ostili Fir[min]

This piece of conduit, broken at both ends, is made of two pipes that have been joined. The reinforcement of the joint, made with molten lead, covers the end of the inscription.

Overall length: 107 cm

Length of the P. Ostili part of the inscription:

11.6 cm (corresponding text in no. 3: 11.7 cm)

Height of the letters: 2.6-3.0 cm (but the letter O has been elongated due to the deformation of the pipe)

Minimum and maximum internal diameter:

6.0 cm x 7.2 cm

Internal circumference: ca. 21 cm

3. inv. no. 00403242

P OSTILI FIRMINI

P. <H>ostili Firmini

Length of the pipe, broken at both ends: 66 cm

It has become common to indicate the minimum and maximum internal measures for the pear-shaped (or sometimes even further compressed) fistulae, following the calculations and recommendations of L. Jacno, “La misura delle antiche fistole plumbee,” Cronache Pompeiane 1 (1934-35) 106-108.
Length of the inscription (form as for no. 1): 23.7 cm
Height of the letters: 2.5-2.7 cm
Minimum and maximum internal diameter: 5.6 cm x 7.5 cm
Internal circumference: 22 cm

4. inv. no. 06(?03241 (the reading is not certain)
C IVLIIIS PRISCVS F
C. Iulius Priscus f(ecit)
Length of the inscription (form as for no. 1): 22.8 cm (taking into account that the middle part of the first letter C is missing)
Height of the letters: 2.3-2.5 cm
Minimum and maximum internal diameter: 4.5 cm x 12 cm
Internal circumference: 31 cm

D.13.2.2. Inscribed lead pipes from the 1997-2000 excavations

5. inv. VH 121, Sector I.2, Area 50 (SAL 114590)
fig. 2
C IVLIVS PRISCVS F
C. Iulius Priscus f(ecit)
Length of the pipe: 113 cm
Length of the inscription, with the letters in relief and no borders along the area carrying the inscription: 22.8 cm
Height of the letters: ca. 2.3 cm
Minimum and maximum internal diameter: 6.5 cm x 10.5 cm
Internal circumference: 27 cm
Width of the seam: 2.5-3.5 cm
Height of the seam: 1.0 cm

6. inv. VH 122, Sector I.2, Area 50 (SAL 114585)
figs. 3a and 3b
C IVLIVS PRISCVS F III
C. Iulius Priscus f(ecit) III (the number 3, of uncertain significance)^10

This piece of conduit consists of a long pipe, 2.45 m, joined to another piece ca. 32 cm in length. The inscriptions are on the long piece.
Length of the inscription (form as for no. 5): 22.8 cm
Height of the letters of the name: 2.3 cm
Height of the number “III”: 7 cm
Minimum and maximum internal diameter: 9 cm x 10 cm
Internal circumference: 30 cm
Width of the seam: 2.5-3 cm
Height of the seam: 1.0 cm

D.13.3. Commentary on the Inscribed Fistulae

A comparison of the inscriptions mentioning C. Iulius Priscus (nos. 1, 4, 5, 6 and 7) shows that they were all done with the same stamp. In each case, the first letter “C” consists of two curved parts that do not quite meet in the middle. In the name Priscus, the foot of the letter “P” is missing in all cases, while throughout the letter “I” lacks the lower half, and the letter “C” the lower half. Therefore, we can conclude that the Iulius Priscus fistulae found in 1911-1914 and those found in the excavations of 1997-2000 were manufactured at the same time and must belong to the same hydraulic project (see De Simone, D.1.3.6).

30. On the significance of numbers, see Bruun 1991, 44-55.
The letters in the stamp *P. Ostili Firmini* seem to be slightly larger than those in the stamp *C. Iulius Priscus f*. Yet this does by no means rule out the possibility that Hostilius Firminus' pipes were made at the same time, and indeed by the *plumbarius* Iulius Priscus. The stamp mentioning the *plumbarius* might have been the standard one used in the workshop, while the stamp for the owner had to be cut specifically for the occasion.

Of the inscribed *fistulae* found in the 1911-1914 excavations, the nearly identical size of pipes nos. 1, 2 and 3 makes it possible that they once belonged together. This is an important question, because it links the pipes manufactured by Iulius Priscus to those carrying the name of Hostilius Firminus. In the excavations of 1997-2000, only stamps of Iulius Priscus have been found, but this time we have a stratigraphic context for the finds, which thus also might enable us to date the presence of Hostilius Firminus.

The Iulius Priscus pipe no. 4 is clearly larger in size and more like no. 6, which carries an identical stamp, while no. 5, also naming Iulius Priscus, seems to be between the smaller pipes (nos. 1-3) and the larger ones (nos. 4 and 6) in size.

D.13.4. ANEPIGRAPHIC LEAD PIPES FROM THE EXCAVATIONS OF 1997-2000

These pipes were reportedly moved by earlier excavators, and their original find-spots are not known (fig. 6).

8. inv. VH 085, Sector I.2, Area 50 (SAL 114587)

Length of the pipe: 121 cm
Minimum and maximum internal diameter: 5.5 cm x 12 cm
External circumference: 32 cm
Width of the seam: 2.2-3.0 cm
Height of the seam: 1.0 cm

9. inv. VH 086, Sector I.2, Area 50 (SAL 114588)

Length of the pipe: 189 cm. Near one end there is a joint, with the two pieces joined at a horizontal angle of some 135°. At a distance of 110 cm from the joint, the conduit shows a hole in the upper part, in line with the seam, having the minimum/maximum diameters of 2.8 and 2.9 cm. The hole was perhaps meant for a stopcock, or possibly for a smaller conduit branching off.

The deformity of the pipe prevented the taking of internal diameter measurements. The external circumference is 33 cm (not including the seam). The seam is 2.5-3.5 cm wide and 1.0 cm high.

10. inv. VH 087, Sector I.2, Area 50 (SAL 114589)

Length of the pipe: 138 cm. At one end there are traces of a joint.
Minimum and maximum internal diameter: 6.5 cm x 11.5 cm
External circumference: 29 cm
Width of the seam: 2.3-2.9 cm
Height of the seam: 1.0 cm

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31. There is even the possibility that pipes nos. 1 and 2 actually carry the same inventory number, perhaps because the pipe was broken after its discovery. But deciphering the early excavation's inventory numbers is much more difficult than reading the Roman stamp.
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