

The Sestius Amphoras: a Reappraisal

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The Sestius amphoras, because of their number and variety and the questions they suggest about Roman trade, are increasingly a matter for discussion. The following article first summarizes the work done on the subject since 1952 and then reviews the evidence, both published and unpublished, concerning the provenience of the Sestius amphoras, the persons responsible for their manufacture and distribution, and their importance as sources of information about Roman economic history.

The Background

The middle of the 20th century marked something of a turning-point in Roman archaeology. Trends emerged that were to accelerate in importance during the third quarter of the century; for example, underwater archaeology came of age with the initial work at the Albenga wreck off the Italian Riviera in 1950 and the more thorough excavation, begun in 1952, at the Grand Congloué site off Marseilles. At the same time, and partly as a result of underwater work, coarse wares of several kinds attracted more scholarly attention than had previously been the case. In particular, Roman commercial amphoras, which up to that time had been largely ignored or had at best been viewed as a sub-field of epigraphy (the trademarks on the jars having attracted scattered attention), suddenly became of general, even popular, interest. Shipping amphoras were found by the hundreds at Albenga and off the Grand Congloué, and the story has been repeated again and again with the exploration of other wrecks. Such trends have helped to stimulate Roman field archaeology, which for its part has helped to raise the initially rather low standards of exactitude of underwater archaeology. The Sestius amphoras, first recognized as a group at the Grand Congloué, well illustrate the archaeological value both of underwater research and of the study of mass-produced coarse wares.

Off the Grand Congloué rock, lying 10 miles east of Marseilles at the far end of a chain of islands, divers led by Jacques-Yves Cousteau found a pile of ancient pottery. Among several types of commercial amphoras, far the largest group consisted of well over a thousand wine jars stamped on the rim with what appeared to be the trademark SES (FIG. 1). Cousteau's invention of the Aqualung and the relative mobility with which the

divers were consequently able to pursue the excavation caught the interest of archaeologists and public alike. There were frequent accounts in the press and published comments by both archaeologists and divers on the date of the find (for it was identified as a single wreck) and



Figure 1. Sestius and Sestius-type amphoras (Will Type 4a; Dressel Type 1A). a.) Sestius amphora from the Grand Congloué wreck. H. 1.05 m. Stamped on the rim: SETS anchor. Photo courtesy Fernand Benoit. b.) Sestius amphora from the Ile du Levant (collection P. Mergier, Paris). H. 1.02. Stamped on the rim: SETS anchor. Originally published in Will, *op. cit.* pp. 228, 234-5 (in note 6). c.) Unstamped Sestius-type amphora from the Agora Excavations, Athens (P 8106). From Deposit C 9:7 (end of the 2nd century B.C.). H. 1.05 m.; see note 25.

on the meaning of the "SES" stamps. The French archaeologist in charge of the excavation, Fernand Benoit, initially assigned a date of about 200 B.C. to the wreck and suggested that the letters SES should be interpreted as an abbreviation of the *nomen* Sestius.¹ Benoit, noting that the Grand Congloué Sestius stamps in all cases included nautical symbols in the shape of an anchor or a trident, sought to argue that "Sestius" was a shipper and that a certain Marcus Sestius of Fregellae, a trader mentioned in an early 2nd century B.C. inscription found on Delos, might have been the owner of the ill-fated ship, which, after leaving Delos, picked up cargo in Sicily and Campania before the disaster off southern France. The Italian archaeologist who had directed work at Albenga, Nino Lamboglia, suggested a date of 160-150 B.C. for the Grand Congloué site, on the basis of the dates of the Campanian ware found in the excavation.² Meanwhile, Cousteau was arguing that the wreck and its cargo should be dated 230 B.C.,³ and an archaeologist on the

diving team, Ferdinand Lallemand, proposed a date of 145 B.C.⁴

Disagreements about the date of the Grand Congloué continued. The French epigraphist and historian, Émile Thevenot, was the first to suggest the reasonable approach of dating the Sestius amphoras by comparing them with similar finds on land. Having done this, M. Thevenot concluded that the Sestius amphoras should be dated, on the basis of similar finds in France and Switzerland, in the 1st century B.C., quite possibly as late as, or even later than, the middle of the century. He felt that juxtaposed wrecks and the ingenious but admittedly unscientific use of the suction pipe in the excavation might explain the wide variety of dates assignable to the Grand Congloué finds. Thevenot further suggested, on the analogy of the frequent occurrence of Sestius stamps on Arretine ware and on bricks, that the Grand Congloué Sestius trademarks probably referred to the potter rather than to the shipper.⁵

My own research corroborated M. Thevenot's. Referring to the closely-dated Roman amphoras found in the excavations of the Athenian Agora, I argued in 1956 that, on the basis of Agora contexts, the Sestius amphoras, which belong to my Type 4a (an early form of Dressel's Type 1, in the well-known typology in *CIL* XV), should probably be dated in the first half of the 1st century B.C., or at any rate not much earlier than the last years of the 2nd century.⁶ Regarding the identifica-

1. Fernand Benoit, who died in 1969, published frequent, somewhat repetitious reports about the Grand Congloué excavation. In these, he was increasingly at pains to reply to critics and to justify his chronology, which tried to reconcile the Sestius amphoras with the presence in the wreck of over 400 "Greco-Italic" amphoras dating from as early as the 3rd century B.C., Rhodian amphora stamps closely dated by Virginia Grace to ca. 220-180 B.C., and examples of Campanian A (3rd century B.C.) and Campanian B (mid-second century B.C.). (Over 6,000 pieces of black-glaze pottery were found.) See his last major publication of the wreck, *L'épave du Grand Congloué à Marseille, Gallia, Supp. 14* (Paris 1961), where references are given to earlier articles. The date assigned by Benoit to the Grand Congloué pile fluctuated between 200 and 130 B.C., a reflection of the uncertainties inevitably caused by the "single wreck" hypothesis, to which he held to the end. In the 1961 publication, he urged that "une datation trop systématique, exclusivement fondée sur la typologie" be guarded against (p. 23). At the same time, he hoped that one day the discovery of coins would permit the assigning of a "rigorous" date to the excavation (p. 25). Benoit continued to identify "Sestius" as Marcus Sestius of Fregellae or one of his relatives (p. 70). I have recently heard an encouraging report that a new publication of the Grand Congloué excavation, one based on Benoit's notes and on re-study of the finds, is being projected.

2. Nino Lamboglia's dating did not show such fluctuations as Benoit's. Based on his study of the Campanian ware found, the date was generally given as 160-150 B.C. or was at least in the 170-150 B.C. range. Lamboglia's published statements about the wreck were as frequent as Benoit's. See especially his articles, "Sulla cronologia delle anfore romane di età repubblicana (II-I secolo a.C.)," *Rivista di Studi Liguri* 21 (1955) 241-270, and "Problemi tecnici e cronologici dello scavo sottomarino al Grand Congloué," *Rivista di Studi Liguri* 27 (1961) 138-154. Lamboglia found three Sestius stamps in his own excavations, one at Vada Sabatia in a context of about 100 B.C. (see the 1955 article, p. 248, note 3, and fig. 6) and the others at Ventimiglia in contexts of about 70 B.C. (*ibid.*, fig. 14).

3. Cousteau's article ("Fish Men Discover a 2,200-year-old Greek Ship," *National Geographic Magazine* CV [1954] 1-36) should not be

allowed to disappear from the Grand Congloué literature. It is in some ways the most candid and informative report thus far of the excavation. His description of the ship's "entire hull and decks" as lead-plated (p. 16) suggested as early as 1954 that wrecks had been superimposed at the site, the upper hull having been misinterpreted as a deck, which would not require lead-plating.

4. Lallemand wrote a fictional log of the journey of Marcus Sestius, hypothetical grandson of the Marcus Sestius mentioned in the Delian inscription, from Delos to the Grand Congloué: *Journal de bord de Maarkos Sestius* (Paris: Éditions de Paris, 1955).

5. Thevenot's two chief discussions, models of scholarly care and brevity, were, "Les importations vinaires en pays bourguignon avant le développement de la viticulture," *RAECE* 4 (1953) 234-239, and "La marque d'amphore 'Sesti,'" *ibid.* 5 (1954) 234-243. See especially pp. 241-242 of the second article.

6. E. L. Will, "Les amphores de Sestius," *RAECE* 7 (1956) 224-244. The article was written rather hesitantly and not at all in the polemic spirit alluded to by Fausto Zevi, "Appunti sulle anfore romane," *Archaeologia* 18 (1966) 213. On the other hand, if Thevenot and I had not questioned Benoit's theories, it is likely that the Grand Congloué wreck would still today be dated a century too early (as indeed it is by some). I had been consulted by the French in December, 1952, about the date of the wreck and had sought to persuade M. Benoit by letter and by a visit to Marseille that, on typological grounds and on the basis of a context (C 9:7) at the Agora Excavations in Athens, the

tion of "Sestius," I described five Sestius stamps from Cosa in Etruria and noted that more such stamps had been found at Cosa than at any other site on land. I pointed out that Publius Sestius, the friend of Cicero, defended by him in 56 B.C., owned a villa at Cosa. I wondered if, since his son, Lucius Sestius Quirinus, was known to have manufactured *tegulae*, Publius Sestius himself might also have possessed a pottery in which he made amphoras for the storing and shipping of the produce of his estate. I reiterated Thevenot's suggestion that the Grand Congloué wreck was not a closed context and argued that several wrecks might well have occurred off so dangerous a spot as the Grand Congloué.

Thevenot's and my suggestions received an understandably mixed reaction.⁷ Time is, however, proving

that our major assumptions were correct. The date for which we argued, the probability of juxtaposed or superimposed wrecks, the likelihood that Cosa was a center of manufacture for the Sestius jars, and that P. Sestius or his father, or at any rate the Sestius family, owned the pottery: all these suggestions grow in strength as time passes. Let us go on to examine the current state of the evidence about the provenience of the Sestius amphoras and the ownership of the pottery where they were probably manufactured.

The Provenience of the Sestius Amphoras

Finds at Cosa, at the Agora Excavations in Athens, and in southern France combine, in the case of the Sestius amphoras, to show the interdependence of un-

Sestius amphoras were being given too early a date. Zevi is quite wrong to say (p. 213, note 15) that my principal argument about the date was not based on typological considerations. I discussed typology throughout the 1956 article (esp. pp. 232-240), and consider Type 4a to be a later development of the "Greco-Italic" amphoras (Type 1 in my classification). Types 4a and 5 (which Lamboglia called Dressel 1A and 1C) both date from the late 2nd century to about the middle of the 1st century B.C. Both types are well represented at Delos, where Roman occupation had all but ceased by the middle of the 1st century B.C., but are not represented at Corinth (refounded in 44 B.C.). Type 4b, which developed out of Type 4a and can be distinguished from it on various grounds but particularly by the fact that its rim is more vertical in profile, dates from the second quarter of the 1st century B.C. down in the Augustan Age. Lamboglia called this type Dressel 1B. Late Sestius stamps (see below) occur on Type 4b.

7. In addition to the responses of Benoît and Lamboglia (above, notes 1 and 2), scholars from several different countries ranged themselves on one side or the other. The German archaeologist, Otto Uenze, was enterprising enough to visit Cosa, among other sites, and to ascertain at first hand the abundance of "Dressel 1" fragments visible in the area. See his publication, *Frühromische Amphoren als Zeitmarken im Spätlatène* (Marburg/Lahn: N. G. Elwert Verlag, 1958). One might question Uenze's (and Lamboglia's) efforts to overemphasize the chronological implications of rim-profiles. At any rate, Uenze was one of the first to accept the suggestions both of a later date for the Sestius jars and of the likelihood of superimposed wrecks at the Grand Congloué (pp. 10, 14, 16-17). Other scholars also accepted the later date: Michel Labrousse, in Georges Fouet, "Fouilles funéraires d'Aquitaine: Vieille-Toulouse, Montraurin," *Gallia* 16 (1958) 124-153; cf. *ibid.*, 20 (1962) 577; though Labrousse felt the new Sestius stamps he presented from Vieille-Toulouse might, since the symbols on them were different from those on the Grand Congloué jars, be later in date for that reason (they were from contexts of 50 B.C. or later); H. T. Wallinga, "De Geschiedenis van de antieke Koopvaardij en de onderzoeke Archaeologie," *Tijdschrift voor Geschiedenis* 71 (1958) 332-348; and Maria Pilar G. Serrano, who summarized Thevenot's and my articles in "Anforas romanas con la Marca 'Sestius,'" *ArchEspArg* 33 (1960) 113-122.

In the mid-60s, a tendency to question the later date asserted itself, especially in the work of Jean-Paul Morel, who, in *Céramique à vernis noir du Forum romain et du Palatin* (Paris: E. de Boccard, 1965) 26-27, noted the disconcerting mixture of dated material in the wreck and diplomatically sought a compromise-date of about 160/150 B.C. He

added that his date was "un moindre mal" and that the Grand Congloué deposit could no longer be considered securely dated. I have not been able to consult Morel's most recent publication, cited in the Manacorda article mentioned below, p. 126, note 13. Zevi, *op. cit.* (in note 6), also tried to avoid questioning the single wreck theory by suggesting that amphoras of "Dressel 1" could be dated perhaps as early as 129 B.C. and as late as 13 B.C., though he admitted the earliest securely dated dipinto on the type was 102 B.C. (*ChF*, 12, 2, 699, 700; XV.2.4554, 4555).

New information about the Sestius amphoras became available in the mid-70s, and on the basis of it Thevenot's and my later date for the upper wreck and my view that Cosa was a major production-center for the Sestius amphoras are being confirmed. My own work at Cosa began in 1974, and meanwhile a number of new Sestius finds were being made in France, especially along the Rhône and in the Gallic isthmus north of the Pyrenees. Two articles by the French scholar Yves Roman are of particular interest: "La place du couloir rhodanien dans la diffusion des amphores de Sestius," *RAECE* 25 (1974) 125-136, and with Guy Rancoule, "Les amphores de Sestius de La Lagasse (Aude) et de sa région," *Revue archéologique de Narbonnaise* 10 (1977) 247-261. Over two dozen Sestius stamps have now been found in the Gallic isthmus: they suggest a date toward the middle of the 1st century B.C., as do several finds in the Rhône valley. Like Labrousse (above), Roman seeks to establish a chronology for the Sestius stamps, making some older than others. I agree that the Sestius firm had a long life, but I am not sure that we can be more specific at this time.

A recent addition to the Sestius literature reports a chance find of Sestius stamps in the Portus Cosanus, near the site of Dr. Anna Marguerite McCann's excavations under the sponsorship of the American Academy in Rome. See Daniele Manacorda, "The Ager Cosanus and the Production of the Amphorae of Sestius: New Evidence and a Reassessment," *JRS* 68 (1978) 122-131. Bulldozing and leveling operations beside the parking lot on the beach at Ansedonia, at the foot of the hill of Cosa, extended the parking area in 1976, and not far from "Puccini's tower," several finds of Sestius stamps were made. Manacorda's article reports one such find, which consisted of 26 stamped pieces. Such chance finds come as welcome corroboration of the discoveries in the excavations done by the American Academy, as reported by me in two papers at the National Meetings of the Archaeological Institute of America, "The Sestius Amphoras from Cosa" in 1974 and "New Light on the Sestius Question" in 1975.

derwater and dry-land archaeology and to prove the "glohal" (in the sense of the Roman world) scale on which the evidence must be sought.

Study of the Roman amphoras found at Cosa commenced in 1974.⁸ Over 2,300 Roman amphoras and fragments have been found in the town and in the lagoon and outer harbor at the foot of the hill on which the town was built. Analysis of these finds was completed in the winter of 1979. Almost half the finds at Cosa belong to Types 4a, 4b, and 5; Dressel 1A, 1B, 1C (see note 6). "Greco-Italics" (notes 1 and 6) number 215. These figures do not include Stephen Dyson's finds in his survey of the *Ager Cosanus*.⁹ Whether or not Roman amphoras were regularly stamped (a matter about which we know as yet too little), most of the finds at Cosa are fragmentary; therefore it should come as no surprise that only 312 Roman amphora stamps have been identified (201 on the hill and 111 in the port). A surprise lies, however, in the realization that Sestius stamps account for 43% of the Cosa totals. The figure is twice as dramatic if the port alone is considered, for 86% (95) of the stamps found in the port as of 1978 are Sestius trademarks. While only 20% (41 of 201) of the stamps from the hill bear the Sestius mark, that figure is also a very high concentration for a single site. On land, similar concentrations of a single stamp are found only at great centers of trade (such as Delos or Alexandria) or near areas of manufacture (such as Brindisi).¹⁰ Since Cosa was apparently not an entrepôt, and since the figures for Cosa, and especially for the *Portus Cosanus*, are so high, we have strong circumstantial evidence that a factory for the manufacture of Sestius amphoras existed near Cosa, quite probably in the area of the port.¹¹ Ninety-five of the 136 Sestius finds at Cosa come from the port; and whereas it might be argued that Sestius

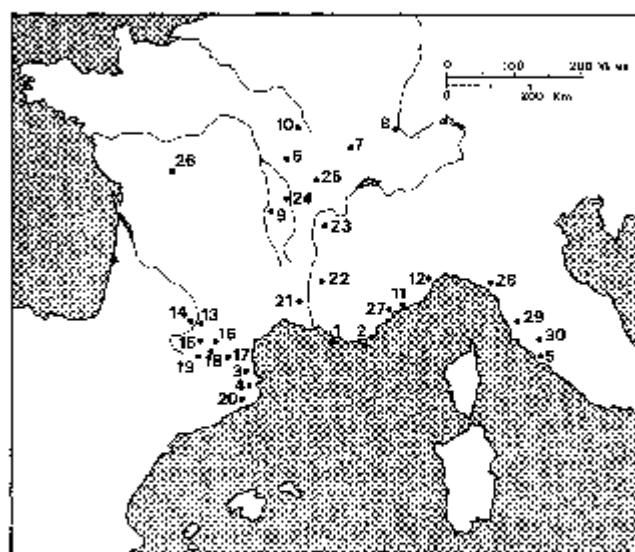


Figure 2. Distribution of verified Sestius amphoras as of 1979. Redrawn from sketch map by E. L. Will (revision of map in Will, *op. cit.* [in note 6] 226, which contained only sites 1-13). 1. Grand Congloué. - 2. Ile du Levant. - 3. Ruscino. - 4. Ampurias. - 5. Cosa. - 6. Mont Beuvray. - 7. Besançon. - 8. Basel. - 9. Lezoux. - 10. Alise-Sainte-Reine. - 11. Ventimiglia. - 12. Vada Sabatia. - 13. Vieille-Toulouse. - 14. Toulouse. - 15. Pamiers. - 16. La Lagaste. - 17. Peyreperouse. - 18. Le Carla à Bourrière. - 19. Mayné à Belest. - 20. Torroella. - 21. Nîmes. - 22. Nyon. - 23. Vienne. - 24. Rosnac. - 25. Tournus. - 26. Poitiers. - 27. Cap Roux. - 28. Luni. - 29. Vulturna. - 30. Saturnia (?).

finds vis-à-vis finds of other trademarks are higher in the port than on the hill because the hill had a longer life span than the port, which all but ceased to function at some point in the 1st century B.C., the much greater numbers of Sestius stamps in the port are striking.

The likelihood that Cosa was a manufacturing-center for Sestius amphoras is increased if we realize that, as of 1977, only 58 Sestius stamps had been found at other sites on land (FIG. 2) and that these were scattered among some 30 different sites in Italy, France, Spain, Switzerland, and possibly even Germany, Austria, and Greece (see below). Excluding the Grand Congloué, 194 Sestius stamps have been reported, and Cosa accounts for 136 of them, or 70%. The Gallic isthmus north of the Pyrenees has produced another 12% (see note 7). The possibility that the area was a secondary manufacturing-center suggests itself; but if we remember the hundreds of pieces at the Grand Congloué, the relatively few finds in western Europe seem more likely to be imports than exports. Future finds in the Gallic isthmus will be watched with interest.

The striking concentration of Sestius stamps at Cosa suggests that it may have been a major center, and perhaps the only center, of manufacture of the amphoras. There is also epigraphical evidence that points in the

8. Cf. E. L. Will, "The Ancient Commercial Amphora," *Archaeology* 30 (1977) 270. I am greatly indebted for their kindness and interest to Professor Frank E. Brown, who has directed the excavations of Cosa since 1948 and who suggested that I prepare the Cosa amphoras for publication, and to Dr. Anna Marguerite McCann, director of the excavations of the Port of Cosa. The Port publication, an effort of 22 specialists, is nearing completion.

9. See Stephen L. Dyson, "Settlement Patterns in the *Ager Cosanus*," the Wesleyan University Survey, 1974-1976," *JFA* 5 (1978), 251-268. The amphoras will be discussed in a separate publication of the finds of the survey.

10. See E. L. Will in *Year Book of the American Philosophical Society* (1962) 649-650, and Benita Sciarra, "Ricerche in contrada Apani, agro di Brindisi," *Recherches sur les amphores romaines* (Rome: Ecole française de Rome, 1972), 29-34.

11. As suggested in Will, 1974 *op. cit.* (in note 7). The limited American Academy excavation, planned for 1975 and announced at that time, of the Sestius deposit subsequently explored by Manacorda (see note 7) did not in fact occur.

same direction. The letter-shapes and the devices or symbols on the Sestius trademarks show great variety. The subject is a complicated one and will be addressed in more detail in my final publications; but it is important to note here that most of the chief letter- and symbol-variations occur at Cosa. It might be added that, except in the case of the late Sestius stamps to be treated below, no particular chronological conclusions seem capable of being drawn on epigraphical grounds. All varieties seem to occur on Types 4a or 5 (Dressel 1A and 1C), which were contemporary (see note 6).¹²

All Sestius stamps include, except when they are broken or otherwise mutilated, a symbol or device or logogram usually placed after one of several possible abbreviations of the name Sestius (FIG. 3). The anchor and trident symbols occurred on the Grand Congloué stamps and are found at other sites as well, but more than a dozen other devices are known, of which the double axe, palm branch, caduceus, and five-pointed star, in that order, are the most important.¹³ All but one of the devices (the nautical hook, found at Nyon) have been found at Cosa. Some devices occur only at Cosa. Of these, an intriguing and previously unpublished example is shown in Figure 4. I initially interpreted it as a

12. Lists of the known varieties of Sestius stamps are out of date almost as soon as they are issued. For the most complete early listing, see Thevenot, 1954 op. cit. (in note 5) 235-236. That list was brought up to date by Labrousse in 1958, op. cit. (in note 7) 148-151, and by Benoit in 1961, op. cit. (in note 1) 66. Most recently, the task has been attempted by Yves Roman and Guy Rancoule, op. cit. (in note 7) 259-261. That list, however, lacks the new finds reported by Manacorda, op. cit. (in note 7) 127, note 18. It also fails to mention the finds at Ampurias (Will, op. cit. [in note 6] 229, note 4), at La Graufesenque (Benoit, op. cit. [in note 1] p. 66), and the second of two stamps at Ventimiglia (Lumboglia, 1955, op. cit. [in note 2] fig. 14). Roman's close attention to rim heights is valid insofar as it facilitates to some degree the process of distinguishing between Types 4a and 5 (Dressel 1A and 1C). The rim of Type 5 is usually, though not always, higher than that of Type 4a. More important, however, is the diameter of the mouth: the opening measured at the top of the rim. Amphorae of Type 5 have a very narrow mouth diameter (0.10-0.12 on the average), whereas those of Type 4a have wider mouths (ca. 0.14-0.16). In general, diameters or estimated diameters of mouths are perhaps the most useful of all criteria in distinguishing among the various types of Roman amphorae.

13. If the Grand Congloué finds are included in the totals, the anchor and trident symbols outnumber all others, at this writing. Excluding the Grand Congloué, 11 examples of the anchor have been found at Cosa and 6 (if the readings are correct) elsewhere. Fourteen examples of the trident have been found at Cosa; otherwise that device occurs only at the Grand Congloué. If the Grand Congloué finds are not included, the double axe, in various dies, is the commonest Sestius device; 13 examples have been found at Cosa, 10 elsewhere. Some other figures are: palm branch, Cosa 11, elsewhere 12; caduceus, Cosa 14, elsewhere 4; five-pointed star, Cosa 3, elsewhere 9; eight-pointed star, Cosa 6, elsewhere 2. These figures do not include instances where the same symbols are found without the letters of the name Sestius.

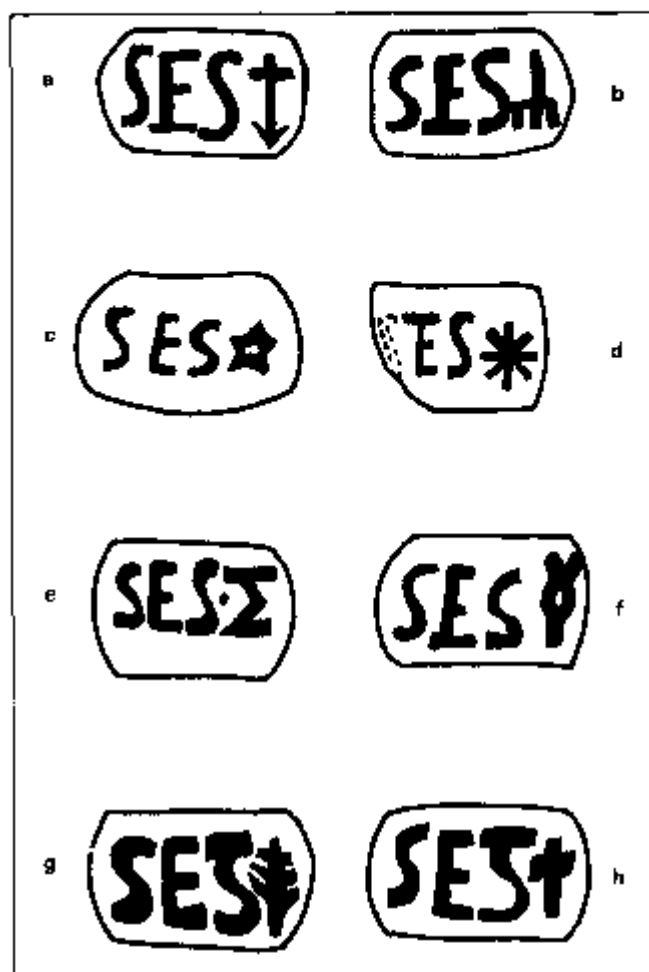


Figure 3. Representative Sestius trademarks from Cosa and the Portus Cosanus, with width and height of stamps. All stamps occur on rims of amphorae of Type 4A (Dressel 1A). a.) (SEST anchor). PC 72-809. W. 0.026 m.; H. 0.015 m. -b.) (SEST trident). PC 76-6. W. 0.025 m. H. 0.015 m. -c.) (SEST 5-pointed star). CB 1746. W. 0.026 m. H. 0.015 m. -d.) (SEST 8-pointed star). PC 75-1. P.W. 0.022 m. H. 0.016 m. -e.) (SEST sigma, or TIVS?). CG 501. W. 0.026 m. H. 0.017 m. -f.) (SEST caduceus). PC 69-179. W. 0.026 m. H. 0.015 m. -g.) (SEST palm branch). PC 76-1. W. 0.028 m. H. 0.016 m. -h.) (SEST double axe). C 69-214. W. 0.028 m. H. 0.017 m. Scale 1:1

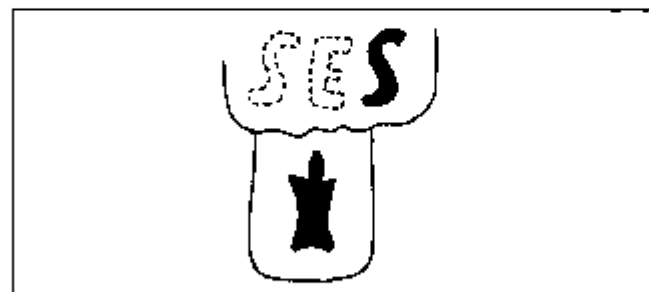


Figure 4. Unique Sestius trademark from the Portus Cosanus. SES lighted altar (?). PC 69-6. W. of upper stamp, 0.028 m. P.H. 0.015 m. W. of lower stamp, 0.018 m. H. 0.023 m. On the rim of an amphora of Type 4a (Dressel 1A). The same device also occurs without the letters on other pieces at Cosa.

lighted altar or a rudder, but I wonder now if it might be the blade of a *sarculum*, a vineyard hoe.¹⁴ The Sestius symbols seem to be important. They perhaps have more meaning than the letters themselves; indeed at Cosa they frequently occur without the letters. They stand alone, apparently readily recognized, like the Mercedes-Benz three-pointed star, the Mobil Oil Company Pegasus, or London Transport's divided circle. Whether the Sestius devices refer to a particular potter or pottery or estate or inspector or year, among other possible interpretations, their variety is best exemplified at Cosa.¹⁵

The abundance of different kinds of devices, which do not seem, at least at present, to be obviously explicable, is matched by variations in the shapes and sizes and ligatures of letters used to abbreviate the name Sestius. Here, again, the chief variations occur at Cosa. Almost all Sestius stamps employ ligatures. Only those with quite small letters, and perhaps not all of those, show the letters SES unjoined in some way.¹⁶ The added

letter is always a "T" (FIG. 3 where, however, the "sigma" in example "e" may be a ligature of "TIVS"). Sometimes we find the "T" added to the second "S" of SES. This always occurs when the device is a double axe or a palm branch. Sometimes the "T" is joined to the "E," extending to the left either its top cross-bar, as when the device is, for example, the eight-pointed star, or its bottom cross-bar, as in the important anchor, trident, and caduceus stamps.¹⁷ Two known anchor-examples also show a ligature of "T" with the second "S," though it is possible that the symbol here is a *bipatium* (long-handled foot-rest spade), not an anchor (see note 14). The chief classes of ligatures, here outlined, all occur with different shapes and sizes of letters, an observation which the number of examples at Cosa makes possible. Such variations doubtless represent the number of different stamping-matrices one would expect to find in a pottery capable of worldwide distribution and capable of producing a shipment of amphoras the size of that found off the Grand Congloué.¹⁸ The variety of shapes, sizes, and ligatures of the letters are also, as in the case of the motifs or symbols, apparently without chronological or geographical significance, as far as our present knowledge is concerned. Proper attention to these matters would require close study of rubbings of the stamps of all known Sestius pieces, as well as analysis of clay-samples. The subject is now so complicated that the attentions of a specialist in Sestius matters seem indicated. Roman amphoras, one hopes, will one day be as rigorously studied as Arretine or terra sigillata.¹⁹ There is little doubt, however, that specialized study of the Sestius amphoras would have to be centered at

14. For the lighted altar on coins, cf. M. H. Crawford, *Roman Republican Coinage* (London: Cambridge University Press, 1974) pl. 70, no. 53. For the *sarculum*, see K. D. White, *Roman Farming* (London: Thames and Hudson, 1970) pl. 43. The symbolism of trademarks is often ambiguous, especially to another era, but it is interesting to note that several Sestius symbols could conceivably be interpreted as agricultural rather than (or as well as?) nautical motifs. The trident might be a pitchfork or vine-prop: White, *Agricultural Implements of the Roman World* [Cambridge: Cambridge University Press, 1967] ch. 4. The caduceus might be a mattock hoe: *ibid.* 66-68 and White, 1970 *op. cit.*, pl. 42. The hook might be a vine-dresser's knife: White, 1967 *op. cit.*, ch. 3. The palm branch might be a form of *palus*, or vine-prop: White, *Farm Equipment of the Roman World* [Cambridge: Cambridge University Press, 1975] ch. 2, and 1970 *op. cit.*, pp. 232-237. The double axe could be the *dolabra* or *dolabella*, both of which picks were important in the vineyard (White, 1967 *op. cit.*, 59-66). One form of the anchor resembles the *bipatium* (see text, next paragraph, and *ibid.* 20-23). On the whole, it seems most likely that the Sestius devices trace their ancestry back to coin-types and to the symbols on Greek amphora stamps. The same symbols occur on more modern trademarks. Anchor, caduceus, trident, and star are very common on European porcelain and pottery. Cf. C. Jordan Thurn, *Handbook of Old Pottery and Porcelain Marks* (New York: Tador, 1947), who makes the point *passim* that the symbols are workmen's marks, though occasionally they identify a pattern (Crown Derby Porcelain, p. 55) or the year of production (in Minton porcelain, the star signifies 1842, the diamond 1857, the arrow 1874, etc., pp. 69-70).

15. See note 14. Devices may also have been used sometimes as inspection-marks, as in the "Tuccius Galeo" series. Cf. E. L. Will, "Two Amphoras from Populonia," in Anna Marguerite McCann, Joanne Bourgeois, Elizabeth Lyding Will, "Underwater Excavations at the Etruscan Port of Populonia," *JFA* 4 (1977) 275-296. On the topic of devices see also Will, *op. cit.* (in note 6) 240-241. Cf. Crawford, *op. cit.* (in note 14) 584-589, 878.

16. The smallest, most delicate letters occur with the five- and eight-pointed star and with the sigma. Roman and Ransoule, *op. cit.* (in note 7) 261, report a five-pointed star with the ligature of "E" and

"T" at Vieille-Toulouse. It might be noted here that the anchor and the trident also regularly occur with delicate, but taller, letters.

17. Many published drawings do not show this ligature, but see the drawings of the Grand Congloué stamps. Benoit, *op. cit.* (in note 1) 67; cf. Will, *op. cit.* (in note 6) 229, note 3.

18. There no longer seems to be any reason to question the identification of the Sestius stamps as pottery marks. Cf. Thevenot, 1953 *op. cit.* (in note 5) 238; *idem*, 1954 *op. cit.* (in note 5) 238-239; Will, *op. cit.* (in note 6) 241, etc. The analogies with Roman bricks, dishes, lamps, glass, mortars, and other objects of trade are only too clear. Whether or not the manufacturer of the Grand Congloué jars was also the owner of the lost ship is less certain; the question is addressed in the last section of this article. Whether or not the potter or the potter-exporter was also the winegrower may be called into question by the fact that some of the necks of the Grand Congloué jars contained plaster stoppers stamped L.TITI C.F. (Benoit, *op. cit.* [in note 1] 52-56). L. Titius is a common signature on Arretine, but the name was not an unusual one.

19. Exact measurements and close comparison of rubbings of the Sestius stamps should make it possible to determine how many matrices were used and thus to estimate, some day, how large the Sestius factory was.

Cosa, and the epigraphical evidence would only be one aspect of such study.

In addition to the number and the variety of Sestius finds at Cosa, mineralogical tests of the Sestius clay suggest, albeit in a preliminary way, a connection with the region around Cosa. Further testing is projected for the summer of 1979. Such tests would have to be able to connect the Sestius clay or clays with a clay-deposit near Cosa, in order to prove a connection with Cosa. Clays were, and still are today, imported, for fakery and other purposes, but one can hardly imagine that that would be the case with mass-produced coarse ware. Even clay-testing, however, has some pitfalls, since variations in firing atmosphere and temperature can result in considerable variation in color even on the same clay. It is also apparently true that one clay bed can consist of different varieties of clay, depending on the amount of rainfall when each layer of clay was formed.²⁰ It is, therefore, all the more striking to note that, even to the eye, testing aside, the clay of the Sestius amphoras is of remarkable uniformity. That statement is based on the collection at Cosa (70% of the whole), on some possibly related pieces at the Athenian Agora (see below), and on my memory and notes about the Sestius jars I saw in 1955 at the Musée Borély in Marseilles, where the finds from the Grand Congloué are stored. I have not seen any other Sestius pieces. Sestius clay, on that basis, can be described as coarse, micaceous, very sandy pinkish-buff clay containing conspicuous red pottery bits (Munsell SYR 6/6). In the sand, black grains are especially obvious. A sandy, lighter colored surface wash covers the outside of the amphora. That surface is sometimes missing, in which case the amphora has a pinkish to reddish color, as did the jars in Marseilles. The clay is identical in appearance with that of the abundant Greco-Italic finds that occur at Cosa (see paragraph 2 of this section and notes 1 and 6) and also with that of a third type of jar, a variant of my Type 16, which is the

equivalent of Dressel's Types 7-14 (see Zevi's article cited in note 6. Dressel's jars apparently brought *garum* (a fish sauce) to Rome from Spain ca. the 1st century A.C., a date with which Athenian Agora contexts agree).

The uniformity of the Sestius clay and its similarity to the clay of other types of jars commonly found at Cosa lends credence to the hypothesis that Cosa may have been in a major amphora-producing region, one in which mass-production was highly organized, as the Sestius stamps also suggest, and had reached the stage of standardization. Mineralogical tests, while not yet conclusive, also suggest methods of manufacture that one would expect to be characteristic of large-scale production and indicate that Cosa could have been a source of the clay used.

Mineralogical tests were performed in late 1975 on a Sestius fragment found that summer on the surface of the Portus Cosanus deposit mentioned in note 11.²¹ Under the reflected light polarizing microscope and the binocular microscope or stereoscan, the minerals in the Sestius fragment proved to be predominantly volcanic in origin. In addition to augite, chromite, volcanic glass sherds, and olivine, the Sestius minerals included an uncommonly large concentration of iron titanium oxides much larger in grain size than the average matrix material. About 1% of the total compositional weight of the fabric consisted of iron titanium oxides, an artificial situation not paralleled in natural environments on earth but closely paralleled in moon rocks. The Sestius iron titanium oxide particles, furthermore, have distinctive characteristics that point to their having been artificially and purposely added to the fabric. First, they are free-standing, not attached to other minerals, whereas in a natural environment other minerals such as olivine would normally be attached to them. Second, they have been uniformly oxidized, whereas normally volcanic material would show a range of oxidation variations. (The uniform oxidation must have been

20. On the effects of heat on clay, see Anna O. Shepard, *Ceramics for the Archaeologist* (Washington, D.C.: Carnegie Institute of Washington, 1957) 19-24. See also Frederick R. Matson, "Ceramic Studies," in William A. McDonald and George R. Rapp, Jr., eds., *The Minnesota Messenia Expedition: Reconstructing a Bronze Age Regional Environment* (Minneapolis: University of Minnesota Press, 1972) especially 201-202, 219, and 223. (I would like to take this opportunity to thank Professor Matson for his help and advice over the years.) Heat may even cause the crystallization of new minerals. For a discussion of changes in iron chemistry, and as a result in the colors of ceramics, when clays are fired under controlled conditions, see J. Hess and I. Perlman, "Mössbauer Spectra of Iron in Ceramics and their Relation to Pottery Colours," *Archaeometry* 16 (1974) 137-152. On different kinds of clay in the same deposit, see O. F. Radczewski, *Die Rohstoffe der Keramik. Minerale und Vorkommen* (Berlin, Heidelberg, New York: Springer Verlag, 1968) 103-111.

21. Will, 1975 op. cit. (in note 7). The tests were conducted by Professor Stephen Haggerty of the Department of Geology and Geography of the University of Massachusetts, Amherst. I am indebted to Professor Haggerty for his kindness in performing the tests. For other analyses of Sestius clay, see Thevenot, 1954 op. cit. (in note 5) 238, note 2, where the iron oxide (hematite) percentage is put at 6.60, in the case of a fragment from Alise-Sainte-Reine. From the beginning, Benoît wanted the volcanic minerals in the Sestius clay to prove that the Sestius jars came from Campania, near Vesuvius: cf. "L'archéologie sous-marine en Provence," *Rivista di Studi Liguri* 18 (1952) 254. His position was less clear by 1961: cf. op. cit. (in note 1) 46. But the work of G. Perinet, "Typologie et structure cristalline des amphores de l'épave du Grand Congloué (Marseille)," *Actes du 83e Congrès national des Sociétés savantes* (Aix-en-Provence 1958) 65-67, sought to confirm the Campanian origin of the cargo.

brought about by the firing of the amphora, at a temperature estimated to have been at least 500-600 centigrade.) Third, the Sestius iron titanium oxide particles are aligned in a way that would only result if they were added purposely to the fabric. Their alignment conforms to the overall curvature of the pot, an indication that after being added to the clay they were spun at high speed, presumably on the wheel. These free-standing, uniformly oxidized, artificially aligned iron titanium oxide particles, not paralleled in naturally-occurring terrestrial clays, must represent original magnetite grains purposely added to the fabric. (The magnetite grains would have been changed to iron titanium oxides during firing.)

Both Lucretius and Pliny the Elder make it clear that the Romans knew the elementary principles of magnetism, and the Sestius clay tested indicates that they also knew how to extract minerals magnetically in a selective way and indeed did so commercially on a large scale.²² Why they would have done so in the case of the Sestius amphoras will require further study. The purpose might be to give the baked clay a redder color, which would result when the original magnetite grains changed to iron titanium oxides during firing. If a redder color was desired, why does a lighter colored surface cover so many Sestius jars? The mineralogical tests, in any case, confirm the other evidence in favor of large-scale, highly organized manufacture of the Sestius amphoras. Cosa or the surrounding area could have been the source of the clay used in the manufacturing process, since the magnetite and the other volcanic minerals put into the Sestius clay might well be available near the great extinct volcanoes east of Cosa. Further testing may help to clarify the picture.

Adding to the other evidence in favor of Cosa as a major source of the Sestius amphoras is an unstamped neck fragment of Type 5 (Dressel 1C) from the Agora Excavations in Athens (FIG. 5). Type 5 is contemporary with Type 4a (see note 6) and indeed two known Sestius stamps occur on Type 5. One of them (see note 2) was found by Nino Lamboglia at Vada Sabatia in a context of about 100 B.C. The scale of Lamboglia's drawing may be incorrect, but the Vada Sabatia fragment clearly has, like the Agora piece, the typically high rim and narrow mouth diameter of Type 5.²³ The symbol on the Sestius stamp at Vada Sabatia is a palm branch; and the same stamp occurs on a Type 5 neck fragment of regular Sestius clay found in 1969 in the Portus Cosanus (FIG.



Figure 5. Type 5 (Dressel 1C) neck fragment from the Agora Excavations, Athens (P 6867). P.H. 0.155 m. Dipinto in red on neck under rim: CO / SES. Unstamped.

6).²⁴ The Vada Sabatia and Portus Cosanus fragments prove that the Sestius factory made more than one kind of amphora. The Agora piece, P 6867, the clay of which is also normal Sestius clay, points in the same direction. More importantly, it seems to link Cosa specifically with the Sestius firm. A red dipinto on the neck under the rim clearly reads CO/SES, the last letter being faint but legible.²⁵ The Latin letters may well name Cosa and

24. The fragment, PC 69-177, was found underwater by Richard and Douglas Preston. The rim height of this piece (0.053 m.) is somewhat lower than the average for Type 5, which is often over 0.06 m. and sometimes, as the type develops, surpasses 0.07 m. The estimated mouth diameter of P 69-177 is 0.115 m. (note 12). The ribbed handles, curved in profile, are also typical of Type 5 (width of the handle on P 69-177, 0.067 m. at curve; thickness, 0.038 m.). The preserved height of the fragment as a whole is 0.32.

25. The preserved height of this piece is 0.155 m. The rim height is 0.064 m., and the estimated mouth diameter is 0.11 m. On this piece, see M. L. Lang, *The Athenian Agora XXI. Graffiti and Dipinti* (Princeton: The American School of Classical Studies at Athens, 1976). The context of the fragment at the Agora Excavations is the same closely-dated one (C 9:7) that yielded four unstamped jars of the

22. Lucretius vi. 906-1064; Pliny *N.H.* xxxvi, 16, 126-128.

23. See above, note 12.

Sestius. If that is the case, this dipinto provides the best indication yet that Cosa was a major source of the Sestius amphoras. Time will tell whether or not this interpretation of the dipinto from the Agora is correct.²⁶ At present, the inscription seems to buttress nicely the other evidence, outlined in this section, connecting Cosa with the Sestius amphoras and suggesting the world-wide scope of the Sestius operations, which extended even to Athens,²⁷ although their chief thrust was clearly toward the West.

Sestius type (fig. 1c and note 6 above; Will, *op. cit.* [in note 6] 237-238, esp. p. 237, note 3, where I pointed out that the amphoras were used as packing around the shaft of a well dug through a cistern in the last years of the 2nd century B.C., according to Knidian amphora stamps closely dated by Virginia Grace. The *terminus post quem* for Types 4a and 5, therefore, seems to be the late 2nd century B.C. See also Zevi, *op. cit.* [in note 7]). It should be noted here that a badly worn rim fragment at the Agora, found in an undated context, bears a stamp that is almost illegible but may read SES followed by an anchor (SS 7173).

26. Time may also explain why the Agora dipinto and two Sestius stamps occur on amphoras of Type 5. While Types 4a and 4b are known to have been wine jars, there is not much evidence to link Type 5 with wine. A dipinto on a jar of Type 5 from Azaila in Spain reads "VE.III/C." a possible reference to four-year-old wine from Caecubum? Cales? Cumae? Cosa? (see Juan Cabré Aguiló, *Corpus Vasorum Hispanorum* [Madrid: Cons. Sup. de Invest. Cient., 4, 1944] 98, no. 5). It should be noted that some examples of Type 5 at Delos have the distinctively powdery, plastery pale buff clay that is characteristic, at least at Cosa, of Spanish *garum* jars of Dressel's Types 7-10 (Munsell 2.5Y 8/2). Other examples of Type 5 are made of a very coarse, rust-colored clay (Munsell 5YR 5/6) that is covered with a whitish surface, seemingly like the "Iberian" clay of Cabré's jars of Type 5 in Azaila (*ibid.* 98, no. 4). The Sestius clay of PC 69-177 has been noted. Type 5, then, may have been manufactured, as seems to have been the case with many Roman amphoras, in several areas; but if the "*garum*" clay of some examples points to the use of the type for *garum*, the association of the unusual spindle-shape of the type with *garum*, have we evidence here (as in the case of the Type 16 jars of Sestius clay referred to in the text) of a *garum* industry at Cosa, one which existed side by side with the wine industry which utilized most of the Sestius jars? 81 examples of Type 5 have been identified at Cosa. A *garum* industry might help to explain the saltery and fishery which the research of A. M. McCann, F. K. Gazda, G. Uggieri, and J. P. Oleson has located in the lagoon of the Portus Cosanus. The forthcoming publication of A. M. McCann's excavations in the Port will discuss these matters in detail. Type 5 may or may not have been used for *garum*, but the mystery of its shape remains.

27. A possible result of P. Sestius' connections with the Aegean area. In 62, he went to Macedonia as Proquaestor under C. Antonius (Cic. *Fam.* 5.6; *pro Sestio* 5.13). He was a Praetor in Cilicia in 49-48 (see F. K. S. Broughton, *The Magistrates of the Roman Republic* [New York: The American Philological Association, 1952] II, p. 264) and served under Domitius Calvinus in Asia Minor in 48-47 (*ibid.* 278). The younger L. Sestius also served as Proquaestor in Macedonia in 43-42, under M. Brutus (Appian *B.C.* iv.6.51, where the name is incorrectly given as Publius; cf. Dio lili.32.4). The coins he issued for Brutus at that time, in fact, bear devices similar to the symbols on the Sestius amphora stamps: see Crawford, *op. cit.* (in note 14) 515, 741, and pl. 61.



Figure 6. Type 5 (Dressel 1C) neck fragment from the Portus Cosanus (PC 69-177). Stamped *SEST* palm branch. P.II. 0.32 m.

The Ownership of the Sestius Factory

At the same time that the evidence in favor of Cosa as a source of most, if not all, of the Sestius jars becomes less circumstantial, the evidence grows that the Sestius family of Cosa was connected with the manufacture. The task of identifying a particular "Sestius" as the manufacturer, however, becomes both more difficult and perhaps less necessary. More than one member of the Sestius family may have held control of the enterprise. It seems certain, in any case, that Types 4a and 5 were long-lived, spanning two or more generations. We know also that Lucius Sestius Quirinus, the son of Publius Sestius, and *consul suffectus* in 23 B.C., was engaged in the manufacture of *tegulae* in the last half of the 1st century B.C. Brickstamps bearing his name have been found at Rome and recently in the

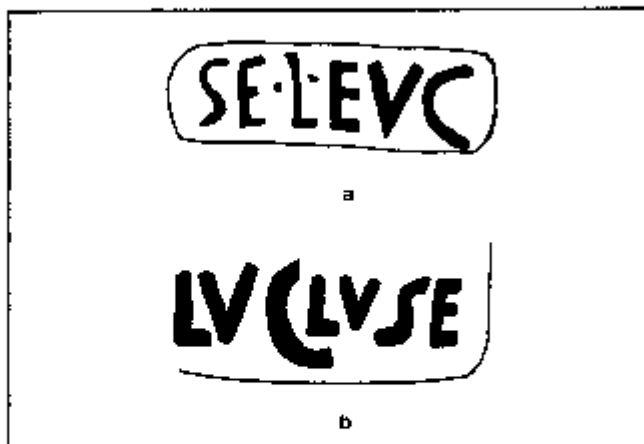


Figure 7. Late Sestius trademarks from Cosa, on rims of amphoras of Type 4B (Dressel 1B). a.) (SE·L·EVC). C 68.49?, which is stamped twice with the same stamp. W. of stamp 0.041 m. H. of stamp, 0.014 m. -b.) (LV(LVSE)). CF 1863. P.W. of stamp, 0.043 m. P.H. of stamp 0.018 m.

Ager Cosanus.²⁸ It can now be announced that at least two varieties of amphora stamps naming Lucius Sestius have been found at Cosa (FIG. 7).²⁹ The stamps occur on rims of Type 4b (Dressel 1B), which was a development of Type 4a and was in use from the second quarter to the last quarter of the 1st century B.C. (see note 6). These late Sestius stamps serve to tie the pottery interests of the Sestius family still more closely both to Cosa and to the manufacture of amphoras and to strengthen my 1956 proposal that Publius Sestius, the praetor of 54 B.C., might have been involved with the production of one class of amphoras of Type 4a, which seems to have been in use until the middle of the century (notes 6 and 7). Publius Sestius was alive as late as 35 B.C.³⁰ His father, the elder Lucius Sestius, dead by 56 and tribune about 91, described by Cicero as *sapiens, sanctus, and severus*, could also have been active in the business. If one accepts Cicero's description of him, he may have

28. *CIL* XV, 1, 1444-1445; cf. Will, *op. cit.* (in note 6) 242. The recent finds in the Ager Cosanus were, according to information kindly transmitted to me by F. E. Brown, reported by Daniele Manacorda during a symposium, "The Seaborne Trade of Ancient Rome in the Late Republic and Early Empire," sponsored by the American Academy in Rome in late 1978 and early 1979.

29. Four examples of the stamp pictured in fig. 7a have been found (CD 857, CE 785, and two impressions on C 68.491), one of them in "SILVY House" (which might have been, in its Augustan stage, a town house of Lucius Sestius?). Fig. 7a reads SE·L·EVC (Euclides the Freedman of Sestius?). Fig. 7b reads LV(LVSE) (Lucaon [or possibly Lycidas?; see note 39 below] freedman of Lucius Sestius). Its number is CF 1863. The "L·SE," "L·SER·ALB," and "L·SEX" amphora stamps reported in *C.I.L.* XIII and elsewhere may be related.

30. Münzer in *RE*, s.v. "Sestius" (6), p. 1890.

been more suited to business than to a Late Republican political career.³¹ Perhaps an organization large enough to produce a shipment the size of the Grand Congloué cargo and to distribute from one end of the Roman world to the other³² required direction from someone less preoccupied in Rome and abroad than Publius Sestius.

The elder Lucius Sestius married his son Publius to the daughter of C. Albinus, who had become a senator before 60 B.C. Publius was so devoted to Albinus, Cicero tells us, that even after Albinus's death and Publius' remarriage to Cornelia (by 62; *Fam.* 5.6.1), daughter of the exiled Marian and consul of 83 B.C., L. Cornelius Scipio Asiaticus, the two remained close. In 56 B.C. Albinus was in constant attendance at Sestius' trial.³³ In 45 B.C., Sestius asked Cicero (*Fam.* 13.8) to intercede on Albinus' behalf in a dispute over land-ownership. Cicero implies that Albinus was a person of wealth. One wonders, in the light of his curiously close relationship to Publius Sestius and in view of the Sestius pottery interests, whether or not Albinus might have been involved with the Albiniana pottery mentioned on a variety of amphora stamps of the 1st century B.C. (FIG. 8).³⁴ The fact that L. Sestius Quirinus (Quirinalis) preserved an abbreviation of his mother Albinia's name as a cognomen on his brickstamps³⁵ might be an indica-

31. See *pro Sestio* 3.6. On the date of his tribunate, cf. Broughton, *op. cit.* (in note 27) II, p. 22.

32. In addition to the evidence cited above from the Agora Excavations in Athens, there are unverified reports of Sestius stamps at Carnuntum in Austria (information kindly given me by Elizabeth Solomon) and at Altenburg in southern Germany (see Franz Fischer, "Das Oppidum von Altenburg-Rheinu," *Germania* 44 (1966) note 72 on pp. 303 and 306).

33. On the relationship between P. Sestius and C. Albinus, see *pro Sestio* 3.6. Although Rohden-Dessau, *PIR* III, no. 436, prefer the spelling "Albanus" (and cf. D. R. Shackleton Bailey, rev. of *Senatorial Wealth And Roman Politicians* by Israel Shatzman, in *Phoenix* 30 [1976] 210), the several occurrences of the name in *Fam.* 13.8 make the spelling "Albinus" more likely. Cf. Broughton, *op. cit.* (in note 27) II, p. 487.

34. The stamp pictured is no. 489 in the Beazki Collection, now stored in the Greco-Roman Museum in Alexandria. The fragment was found either in the Fayûm or in Upper Egypt. It belongs to my Type 11 ("Brindisi-type"), which was manufactured in the neighborhood of Brindisi, and perhaps elsewhere, in the first quarter of the 1st century B.C. (see Will, *op. cit.* (in note 15) 295. Other Albinus stamps occur both on Type 11 and on Type 12 (Dressel Types 2-5). All of these pieces will be published in my forthcoming volume on Roman amphoras in the *Athenian Agora* series. "Vascula Gallica" bearing similar stamps are listed in *CIL* XIII, 10010, 76-86.

35. The name occurs in three different forms on the brickstamps in *CIL* XV, 1, 1445: L·SESTI·P·F·ALB·QVIRINALIS·A; L·SESTI·ALB·QVIRINALIS; L·SESTI·AI·QVIRINALIS. All the brickstamps of

tion that the pottery (near Rome?) where those bricks were made had originally belonged to his grandfather Albinus. The marriage of Publius Sestius and Albinia could have been either a cause, or a result, of the Sestius pottery interests.³⁶ The merging, if it took place, of two great pottery firms could have created an "empire" strong enough to maintain the apparent monopoly enjoyed by the Sestius amphoras in the West.³⁷ No Republican amphora stamp, in any case, is found with such frequency in the western Mediterranean area, even if one excludes the Grand Congloué shipment.³⁸

We should probably, then, think in terms of the Sestii rather than of an individual member of the family, in considering the ownership of the Sestius factory. Both

Sestius in *CIL* XV seem to come from Rome and vicinity. Since bricks were usually locally made, one would presume these finds were manufactured in Rome. They may be among the earliest brickstamps known, since baking replaced sun-drying of bricks at some time in the 1st century B.C., according to information kindly communicated to me by Herbert Bloch. The locally well-known brick kilns, modern and ancient, on the Albinia River, to the north of Cosa, had, to my knowledge, no connection with the Sestius family in antiquity. Perhaps a connection will some day be discovered. Nor is there any known connection between the Albinia River and the family name of Lucius Sestius' mother. For a recent, brief discussion of a possible ancient kiln near the Albinia, see D. P. S. Peacock, "Recent Discoveries of Roman Amphora Kilns in Italy," *Antiquaries Journal* 57 (1977) 266-268. Detailed publication of the finds from this site will be awaited with interest. On amphoras in the area of the Albinia River and the Gulf of Talamone, see also my forthcoming article (with Vincent Bruno) in *Archaeology*, "Underwater in the Gulf of Talamone."

36. P. Sestius also had a close relationship to his second father-in-law, L. Cornelius Scipio Asiaticus. Immediately after the wedding, Sestius went to Marsilles to visit his new wife's father, in exile there. This marriage, too, may have involved business interests. The amphora stamp L. CORNELI L.F. Q. occurs on jars of my Type II (above, note 34) at Alexandria, Delos, and Brindisi. The examples at Alexandria and Delos will be published in my *Athenian Agora* volume. For the stamp at Brindisi, see *CIL* IX. 6079. 18. Study of Roman amphoras makes it very apparent that Roman nobles were heavily involved in business and in trade, however little they might publicize the fact. The involvements of the Sestius family and its connections are just one example among many. I plan to explore the subject more thoroughly in a future article.

37. The connection, if there was one, between the manufacture of amphoras and bricks by the Sestius family and the frequent occurrence of Sestius stamps on Arretine needs to be explored. A. Oxé's *Corpus Vasorum Arretinarum*, edited by Howard Comfort (Bonn: Rudolf Habelt Verlag, 1968), lists (Numbers 1792-1819) many Sestius stamps, the shapes of the letters of some of which closely resemble the letters on the amphora stamps; cf. no. 1793d 1-3, f, and especially g. Stars and palm branches occur *passim* on Arretine Sestius stamps. The amphora "empire" could have included, or been succeeded by (as was apparently the case with bricks), the manufacture of Arretine.

38. Only in the eastern Mediterranean do we find a contemporary parallel. The stamps of Vetilius, Visellius, Betilienus, and others occur by the dozens on jars of my Type II ("Brindisi-type") at Athens, Delos, Alexandria, and Brindisi. See above, note 34.



Figure 8. Type II ("Brindisi-type") handle stamped, retrograde, ALBINIANA. Benaki Collection, No. 489, now in the Greco-Roman Museum, Alexandria. W. of stamp 0.057 m. H. of stamp 0.013 m.

Publius and his son Lucius exhibited the wealth that accrued from pottery-making throughout Greek and Roman antiquity. Catullus referred to the *sumptuosas cenas* ("costly dinners") of Publius Sestius (poem 44). Cicero mentions in 44 B.C. Publius' villa at Cosa (*Att.* 15.27.1) and on another occasion, in 45 (*Att.* 13.2.2), jokingly called him *parochus publicus* ("official welcomer"). In 62 B.C. (*Fam.* 5.6.2), Cicero sent him a plea for financial assistance as clear as it was indirect, noting that he was ready to join a conspiracy because of his indebtedness for the new house on the Palatine. Cicero may have owed a financial, as well as a moral, debt to Sestius (*Fam.* 13.8.3: *ego illi uni plurimum debeo*—"to him alone I owe most."). There is also the possibility that Augustus' appointment of Lucius Sestius as *consul suffectus* (surrogate consul) in 23 may have been less a startling gesture of good will and admiration toward a militant adherent of Brutus than a desire to add the younger Sestius' financial resources to his own side.³⁹ Finally, another chance reference in Cicero (*Att.* 16.4.4; 44 B.C.), one in which he mentions the *navigia luculenta . . . Sesti* ("splendid ships of Sestius"), may apply either to Publius or the younger Lucius. Scholars disagree,⁴⁰ but it is clear that the phrase indicates that the Sestius family had shipping interests, or at least "naval capabilities," of which the top level of the Grand Congloué pile may be another suggestion. Even if Publius Sestius or his son did not per-

39. See Dio lili.32.4 (cf. above, note 27). It is tempting to read Horace *Odes* 1.4, dedicated to L. Sestius, in this light and in the light of the archaeological evidence. The choice of words in the poem (*carinas*, 1.2; *officinas*, 1.8; *regna vni*, 1.18; *Lycidan*, 1.19, etc.) may tie it closely to L. Sestius.

40. For a summary of the evidence, see Broughton, *op. cit.* (in note 27) II, p. 326. I am indebted to Professor Broughton for his kindness in discussing this matter with me by letter.

sonally own ships, one of them had the ability to raise the fleet praised by Cicero. Further excavation in the Portus Cosanus might throw more light on this matter.

Literary references thus seem to confirm the wealth and the power of the Sestius family. Whether or not the family was in the shipping business, the archaeological evidence clarifies the literary evidence by pointing to the existence of a large, far-flung and long-lived pottery firm located in the area of Cosa, one which was probably dominant in the manufacture and export of amphoras of Type 4a.⁴¹ Other stamps are found on the same type of jar, but none comes close to the Sestius stamps in frequency of occurrence.

As our knowledge of Roman amphoras and of other coarse wares expands, we are able to probe more deeply into Roman economic history. We achieve a better understanding of Roman antiquity and at the same time a realization of how little we actually know about it. Study of the Grand Congloué excavation and of the Sestius amphoras takes on more meaning in that light. Further study should help to clarify the areas of uncertainty that remain. The Sestius amphoras, however, important as they seem to have been, are just one element in the entire picture. Close study of all classes of Roman commercial amphoras, and of coarse wares in general, will enable us to achieve a level of understanding of Roman economic history that can be only dimly foreseen at present. At the same time, the interdependence of dry-land archaeology, underwater archaeology, and literary scholarship will be underscored.

41. Type 4a may well have been manufactured in several places, although the Sestius firm seems to have been dominant. We know, for example, that Type 4h was manufactured both in Lutium, where kilns have been discovered near Terracina (cf. A. Hesnard, "Note sur un atelier d'amphores Dr. 1 et Dr. 2-4 près de Terracine," *Mélanges de l'école française de Rome. Antiquité* 89 [1977]: 157-168) and near Brindisi, where the kilns discovered by me in 1961 contained fragments of Types 4b and 11, as well as other types (above, note 10).

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