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***THE VOUNI TREASURE AND MONETARY PRACTICES IN CYPRUS IN
THE PERSIAN PERIOD***

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Introduction

In the late 1920s the Swedish Cyprus Expedition's excavations at the Persian period palace at Vouni on the northern coast of Cyprus brought to light an important gold and silver treasure. Placed in a coarse, globular jar underneath a staircase of the palace, were 248 silver coins, almost all minted in Cyprus, four darics, 3 silver bowls, 4 gold and 15 silver bracelets, 2 silver pendants (in the form of a cylinder, preserved in 3 fragments, and a cicada, respectively), and 4 "lumps of gold" (Fig. 1).¹ The treasure would have been concealed in the face of an enemy attack, responsible for the destruction of the palace, around 390-380 BC.²

At the time of the discovery, the treasure's 252 numismatic issues represented the only coin hoard known from Cyprus from a controlled excavation.³ They were promptly published by Willy Schwabacher in 1946 (with revisions added in the following year) following the Swedish Cyprus Expedition's final report on the excavations conducted at the palace, and the coins in question have remained an important point of reference in subsequent explorations of Cypriot numismatic history and monetary practice.

All along the gold and silver objects of the treasure have been treated separately from the coins, being viewed essentially as personal valuables offering insights into the wealth of the palace's occupants and, in certain instances, their taste for the luxuries favored by the Achaemenid Persians who ruled Cyprus at that time. The latter is the case with the four *omega*-shaped gold bracelets, two decorated with

¹ Gjerstad *et al.* 1937, pp. 238 -49, no. 292, fig. 156 on p. 280, pls. IV, LXXXIX 9-10 and 14-17, XC, XCI, XCII, XCV-XCVII. For the actual forms, however, of the gold "lumps", see now below, p. 13f. (Addendum).

² For this interpretation of the circumstances of the burial of the hoard and a dating to about 380 BC, see Gjerstad *et al.* 1937, pp. 278 and 288, followed by Schwabacher 1946 (and 1947[1949]), Thompson – Mørkholm – Kraay 1973, no. 1278, and Kraay 1976, p. 305. For a 390-380 date, see Maier 1985, p. 37; cf. Nilsson 2003, p. 307, and Hellström 2009, pp. 29 and 37 (copy of article kindly provided by Kristian Göransson). A dating in the first quarter of the fourth century is compatible with the chronology of the four darics of the hoard, all belonging to Type IIIb, which is attested, albeit by a limited number of specimens, since the fifth century; see Carradice 1987, esp. pp. 84-87 and 92 with Table B on p. 87 (wherein a date of 380 BC for the burial of the Vouni find is accepted), and Stronach 1989, pp. 260-61.

³ Cf. Nilsson 2003, p. 307.

calves' and two with goats' heads finials (Figs. 1e,f,g, 4, 6),⁴ and two of the silver bowls (Fig. 1b,c),⁵ all characteristic of variations of popular jewelry and vessels favored by the Achaemenid Persians.

Unmarked precious metal was widely used as money in the Persian empire, which encompassed Cyprus. Gold and silver objects also possessed, like coins, an intrinsic monetary value. Although they certainly document a degree of wealth and demonstrate interest in luxury goods made in the prevailing Achaemenid Persian style, the gold and silver objects of the Vouni Treasure also permit, therefore, a discussion of the entire contents of this important hoard in the broad context of the monetary uses of gold and silver in Cyprus in the fifth and the fourth centuries BC.

Achaemenid approaches to gold and silver money

Over the past few decades, awareness has been increasing that the use of various forms of precious metal as money was much older than the introduction of coinage.⁶ Though especially characteristic of pre-coinage societies, this practice is now known to have continued after the introduction of and parallel to coinage and is most vividly attested by the variety of shapes of monetary silver and gold current in the Persian empire.

At a time that can be set to soon after 520 BC,⁷ the Achaemenid monarch Darius I (522-486 BC) instituted a distinct, bimetallic Persian coinage. This Achaemenid coinage, which continued to be minted under his successors, was apparently never imposed as the official, empire-wide medium of exchange.⁸ For instance, in Egypt (which was annexed by Persia in 525 BC during the reign of Darius' predecessor, Cambyses) coins circulated from as early as the second half of the sixth century. These coins, coming largely from the minting states of the Aegean, Asia Minor and Cyprus, are regularly found in hoards fragmented and bearing test-marks (so "functionally no different than *Hacksilber*"⁹), side-by-side with *Hacksilber* and ingots, which apparently also served monetary functions.¹⁰ Transactions in precious metal in a variety of forms remained a regular practice in Egypt until at least the latter half of the fourth century, when the official minting of coins began in the area on a large

⁴ See Gjerstad *et al.* 1937, p. 238 nos. 292 g (with calves' heads finials) and 292 e,f (with goats' heads finials), pls. IV, XCI, XCII e,f,g; Gjerstad 1948, p. 166 with fig. 36.2 (drawings) on p. 167, and pp. 391-92; cf. P. Amandry 1958, esp. pp. 14-15 and 20, and pls. 11.21-22 and 12.27-29.

⁵ See Gjerstad *et al.* 1937, p. 138, nos. 292 b,c, pls. XC 4 and 6-7, XCII b,c; Gjerstad 1948, p. 160 with fig. 33.9-10 (drawings), and pp. 405-07.

⁶ Among treatments of this subject, see the ground-breaking discussion of Powell 1978 and the most recent survey by Peter Vargyas in this volume.

⁷ A date in the beginning of the reign of Darius I for the introduction of the earliest type (I) of the Achaemenid 'archer' series has been proposed on the basis of the stylistic similarity of the latter type (including the smooth treatment of the sleeves of the robe of the royal figure) with the Bisitun relief (520-519 BC) (David Stronach, personal communication, and *idem* 1989, pp. 264-66). For an overview of the relevant evidence and scholarly commentaries, see, conveniently, Zournatzi 2003[2004], pp. 6-7.

⁸ Cf. Zournatzi 2000[b], pp. 245-48.

⁹ Van Alfen 2004-05, p. 16.

¹⁰ See, especially, Kroll 2001 and Van Alfen 2004-05.

scale.¹¹ A similar picture of monetary use of silver by weight emerges from Babylonian texts (indicating, among other things, that even Seleucid staters were passing by weight¹²) and from important Persian period hoards found in distant areas of the empire, such as Babylon (c. 420-400 BC)¹³ and the Black Sea (c. 420 BC),¹⁴ in which coins (often chipped or fragmented) are found together with complete and fragmentary ingots and jewelry, and fragments of vessels, the whole presumably serving monetary functions like analogous hoards found in Egypt.

While Darius' coinage was not meant as a medium of an empire-wide numismatic reform, it is at least a fact that it had no impact, either, on the manner in which the Persian rulers themselves regularly hoarded their gold and silver. In the third book of the *Histories*, following a detailed exposé of the annual taxes due to Persian authorities from the empire's subjects (an arrangement putatively authored by Darius I), Herodotus (3.96.2) states that Darius submitted his revenues in precious metal, expressed in this context in round sums of gold and silver talents, to metallurgical processing. However one chooses to interpret the implications of this admittedly ambiguous passage,¹⁵ the last sentence ("and when he needs money, he mints as much as is required on each occasion") obviously rules out the idea that the Achaemenids routinely converted their revenues into coinage. To judge by classical descriptions of the contents of royal Persian treasuries in Iran, the Achaemenids hoarded precious metal mainly in the form of finished objects.¹⁶ These, in addition to supplying an appropriate form of gold and silver for gifts and storage,¹⁷ could serve as "large denomination coins". As the fragments of bowls and jewelry attested in Persian period hoards imply, finished objects could also be cut into smaller pieces when required by different transactions.¹⁸

In view of the variety of shapes of monetary gold and silver in the Persian realm and the importance given to jewelry and vessels as monetary instruments in official Achaemenid contexts, it would also seem reasonable to interpret the miscellaneous gold and silver (coins, vessels, bracelets, as well as the gold lumps¹⁹) of the Vouni

¹¹ Van Alfen 2004-05, pp. 16-17. As he notes on p. 16, the "elevated presence of bullion in Egypt would seem to correspond to the comparative lateness of Egyptian minting". Hoards with miscellaneous silver occur in Egypt until as late as the Roman period (Peter Vargyas, personal communication).

¹² See *CAD* s.v. "istatirru" and modern commentaries cited in Zournatzi 2000[b], p. 246, n. 20.

¹³ Thompson – Mørkholm – Kraay 1973, no. 1747; Reade 1986. Cf. Zournatzi 2000[b], p. 246, n. 21, with further references. The date of the hoard was originally set to 385-380 BC. The higher date followed here relies on the chronology assigned to the "Phoenician content" by Elayi – Elayi 1993: 268-70, no. 261 (cited in *CH IX* 364).

¹⁴ Kraay – Moorey 1981.

¹⁵ For a detailed argument that this passage refers to control of the quality of the gold and silver collected from taxation to official Achaemenid standards of fineness, see Zournatzi 2000[b] (with an overview of earlier interpretations), further supported by van Alfen's (2004-05), and Vargyas' (2009) analyses of relevant written evidence from Persian period Egypt.

¹⁶ The relevant classical testimony is discussed in Zournatzi 2000[b], pp. 249-52.

¹⁷ Cf. *Str.* 15.3.21.

¹⁸ As attested by mixed hoards, e.g., Kraay – Moorey 1981, nos. 132-135 and pl. 7 (a complete bracelet with calves' heads finials and fragments of others) and no. 137 and pl. 8 (a fragment of royally inscribed silver, perhaps from a bowl); Reade 1986, pls. II and III (fragments of jewelry and bowls).

¹⁹ A parallel for the four gold lumps of Vouni (Gjerstad *et al.* 1937, p. 238, no. 292p) could be said to be provided by, e.g., a silver lump in the Babylon hoard (Reade 1986: 83, no. 44) and silver lumps in the Ras Shamra hoard (Thompson – Mørkholm – Kraay 1973, no. 1478).

Treasure as different forms of currency. And by the same token, the sum of this treasure could be a monetary hoard.

Mixed hoards in Cyprus?

At first sight, an interpretation of the miscellaneous gold and silver of the Vouni Treasure as a monetary hoard would seem difficult to harmonize with the monetary landscape of classical Cyprus. Precious metal (in particular, silver) appears to have played an important role in Cypriot economy since at least the Late Bronze Age.²⁰ There can be little doubt that, before the introduction of coinage, precious metal was used by the Cypriots by weight in economic transactions, as was customary throughout the Near East. By the Classical period to which the Vouni Treasure belongs, however, Cypriot approaches to money had presumably undergone a crucial transformation.

Cypriot silver coins found in hoards datable before 500 BC indicate that the island was among the pioneers of silver coin production.²¹ Coin minting and use were apparently embraced, moreover, throughout the island by the fifth century. Although not all fifth- and fourth-century Cypriot numismatic issues and series attested so far can be attributed with certainty to a particular city or mint, the island's numismatic output is effectively representative of the sum of the major population centers,²² and the various smaller denominations of the Cypriot coinages provided an adequate medium of payment for both large-scale and everyday transactions.²³

Until the late 1980s, the impression of a Cypriot monetary economy relying exclusively on coin was reinforced by the evidence of Late Archaic and Classical period hoards reported from the island, which, to my knowledge,—with the exception of the Vouni Treasure—appeared to consist exclusively of coins.²⁴ Absent from these hoards were traces of unmarked silver, tell-tale signs of the use of bullion as money as in, say, the adjacent territories of Egypt and the Levant.²⁵

²⁰ For an insightful analysis of the evidence related to the importance of silver in Cypriot economy, and especially in the Cypriots' international economic exchanges, in the Late Bronze Age, see Kassianidou 2009, with references to earlier discussions. Vassos Karageorghis recalled (personal communication) the two silver ingots discovered in a late-thirteenth century context at Pyla-Kokkinokremos (see, e.g., Karageorghis 2002, p. 84, fig. 163) as evidence for the circulation/importance of silver in the island at that time and its form(s).

²¹ See Kagan's (1994, pp. 39-41) study of the relevant hoard evidence, and Destrooper-Georgiades 1995, p. 214. Kagan's study indicates, among other things, that a date before 500 is also entirely possible for the three Cypriot sigloi buried in the foundation deposits of the Apadana at Persepolis; cf., in the same sense, Zournatzi 2003[2004], pp. 8-11, with special reference to the literary and archaeological evidence bearing on the date of the foundation of the latter building.

²² Pending an up-to-date, comprehensive survey of the coinages of the Cypriot city-kingdoms, one can usefully consult, e.g., Hill 1904, Kraay 1976, pp. 299-311, and the recent overviews of Cypriot city mints conveniently cited in M. Amandry 2009, p. 87.

²³ For smaller denominations (ranging from thirds of c. 3.6 g to smaller than twelfths of 0.9 g), see, e.g., Destrooper 2001, p. 173; cf. Picard 1994, p. 12.

²⁴ See Thompson – Mørkholm – Kraay 1973, nos. 1272 (*CH* VIII 42; *CH* IX 353), 1273, 1274, 1275, 1276, 1277 (*CH* VIII 43; *CH* IX 353), 1279, 1280; *CH* II 28; *CH* V 22 (*CH* VI 13); *CH* VI 10; *CH* VIII 65 (*CH* IX 378); *CH* IX 401; Michaelidou-Nikolaou 2006.

²⁵ This assessment also clearly emerges from Van Alfen's (2004-05, esp. p. 16) overview of the contents of southeastern Mediterranean hoards of the Persian period.

A “treasure” said to have been found at Vavla (in the eastern part of the kingdom of Amathous) in 1989 may indicate that appearances are misleading. This “hoard” of 154 silver coins (dated prior to c. 340 BC), 11 silver earrings, 1 bronze pendant, and 11(?) bronze weights was found through illicit excavations, and the circumstances of its discovery remain obscure.²⁶ An allowance has been made nonetheless that all its contents could constitute a single find.²⁷ If true, this would allow a number of observations.

The “hoard” was auctioned and dispersed soon after its discovery,²⁸ and the exact number of weights therein remains unknown. However, a group of eleven weights, all ascribable to this hoard and most marked with a Phoenician letter (either ‘*ayin*, ‘*heth* or ‘*sin*), were reviewed by Antoine Hermary in the context of a more comprehensive study of weights found at Amathous.²⁹ From his analysis it seems likely that, “in addition to the standard of a siglos of 11.2-11.6 g current at the time in Cyprus, there were also used Phoenician weight systems, identified by the Phoenician letters engraved on the weights which appear to refer to three lighter standards of c. 10.5, 8.2, and 7 g”.³⁰ Hermary suggested that the use of different weights “could be related to the different origins of the coins included in the hoard, subject to probable variations of the siglos-stater from one kingdom to another”, but that “the diversity of the weights can also be explained by the necessity of weighing other categories of objects, such as the jewelry, that was present in the hoard”.³¹

If the coins of the “hoard” were not accepted at face value, but their weights had to be verified on the balance in each transaction,³² this reminds us of the Seleucid staters passing by weight in Babylonia and, in general, of transactions in bullion silver in Cyprus’ southeastern Mediterranean domain. If the weights were especially

²⁶ *CH VIII 140* (identified as coming from Amathous), with pls. XIII.26-33 and XIV.1-42; Destrooper-Georgiades 2000, pp. 704-705 (noting, on p. 704 n. 4, auctioners’(!) claims that the coins formed a “collection” assembled over a long period time); M. Amandry 2002, p. 53 with n. 2; Hermary 2002, pp. 236-37 (article kindly brought to my attention by Evangéline Markou); M. Amandry 2009, p. 88. Hermary (p. 236) speculates on the possible connection of the “treasure” with a small, rural sanctuary (active from the end of the Cypro-Archaic II to the end of the Hellenistic period) excavated at Vavla and published by Morden and Tod in 1994.

²⁷ See *CH VIII 140*, and especially Hermary 2002, p. 237. Cf. M. Amandry’s (2009, p. 88) noncommittal reference to 11 bronze weights “associés à un ensemble important de monnaies”.

²⁸ As noted by M. Amandry 2002, p. 53 n. 2, and Hermary 2002, p. 236.

²⁹ See Hermary 2002, pp. 236-37, noting the uncertainties surrounding the information at his disposal concerning the actual weights and total number (not specified in *CH VIII 140*) of the Vavla pieces.

³⁰ Cf. Hermary 2002, p. 237. The question of the use of a uniform weight/coin standard in the Cypriot kingdoms is still to be satisfactorily settled, however (cf. also the comments of M. Amandry 2009, p. 88). In the course of the fifth century, for instance, a slightly lighter weight standard (perhaps peculiar to the late Archaic period?) is seemingly adhered to by the 36 Cypriot coins of the recently discovered Lefkosia hoard, dated by Destrooper-Georgiades to c. 500-498 BC (Pilides – Destrooper-Georgiades 2008, pp. 323-24). If they were actually used in relation to fourth-century Cypriot coins, the weights of the Vavla hoard could imply (as Hermary, pp. 236-37, also indicates) the currency in the island, during the fourth century, of monetary systems of weight that were lighter than the “theoretical weight” of 11+ g of the Cypriot siglos.

³¹ Cf. Hermary 2002, p. 237.

³² The notion that coinage might not (or not always) have been accepted at face value in Cyprus may be further supported by Anne Destrooper-Georgiades’ observation that coins with test-marks, which were reportedly previously rare on the island, and which are generally held not to occur in countries with a coin economy (cf., e.g., Van Alfen 2004-05, p. 15), are attested in “an unusually high percentage ... more than eight per cent” in the Lefkosia hoard (Pilides – Destrooper-Georgiades 2008, p. 327, cf. p. 324).

useful for determining the weight of the other items associated with the coins, this could suggest that the silver jewelry of the “hoard” was treated (perhaps like the coins?) as money by weight. Thinking along the same lines, the presence of a bronze pendant in the Vavla “hoard” might also be significant. This item of bronze—a metal which was used from early on as currency of lesser value alongside silver and gold (and also began to be minted into coins in Cyprus during the fourth century BC³³)—could imply that bronze objects also had a place in local monetary transactions.

The uncertainties surrounding the Vavla “hoard” are numerous. At least on present perceptions of this material (i.e., as a possible *single* find), it is obvious that its contents cannot be confidently accounted for by the notion of a Cypriot monetary economy operating strictly on coin.³⁴ The Vouni find might also no longer constitute a unique instance of a Classical period Cypriot “treasure” combining coins with other items of precious metal. Truth to be told, the phenomenon of “mixed hoards” might be more extensive in the Cypriot archaeological record.

Of the hoards reported so far from Cyprus relevant to this discussion, only five—namely, the Vouni Treasure, two finds from Idalion,³⁵ the hoard of Amathous Tomb 286,³⁶ and the recent Lefkosia find³⁷—were found in the course of controlled excavations. The remainder³⁸ were either discovered accidentally in the course of construction³⁹ or found their way to museum and private collections from the market, and it is impossible to ascertain their original contents. Currently posing as consisting exclusively of coin, some of the latter hoards could have originally included other items, which their finders disposed of separately from the coins, conceivably in response to different, specialized preferences that obtained in the market. As for any much less marketable—and, until recently, seemingly quite insignificant—pieces of scrap metal and fragments, these, if present, could have been simply melted down.⁴⁰ This circumstance could apply, of course, to the Vavla “hoard” as well, since it derives from clandestine excavations.

While these considerations would tend to undermine perceptions of a sweeping transformation of Cypriot monetary practices as a result of the introduction of coinage, additional reasons for supposing that Cypriot transactions in precious metal were not monopolized by coin emerge from the realities of the Cypriots’ wide-ranging commercial enterprises. We know, for instance, that coinage was not

³³ See Destrooper-Georgiades 2008.

³⁴ This is also implicit in Hermary’s (2002, p. 237) commentary.

³⁵ Thompson – Mørkholm – Kraay 1973, nos. 1275 and 1276, both dated to 425-400 BC.

³⁶ Originally announced in Karageorghis 1981, p. 1016, this treasure of 11 coins was subject to detailed presentation by Masson 1982, pp. 150-51; cf. M. Amandry 1984, pp. 57ff, and Picard 1991, pp. 173-74. References owed to Anne Destrooper-Georgiades.

³⁷ Pilides – Destrooper-Georgiades 2008, pp. 315-28.

³⁸ See Thompson – Mørkholm – Kraay 1973, nos. 1272 (*CH* VIII 42; *CH* IX 353), 1273, 1274, 1277 (*CH* VIII 43; *CH* IX 353), 1279, 1280; *CH* II 28; *CH* V 22 (*CH* VI 13); *CH* VI 10; *CH* VIII 65 (*CH* IX 378); *CH* IX 401; Michaelidou-Nikolaou 2006; Apice *et al.* 2003 [Lanteri] (= Destrooper-Georgiades 2004).

³⁹ Thompson – Mørkholm – Kraay 1973, no. 1272 (from Larnaca) and no. 1279 (from Meniko). For the circumstances of discovery of the former hoard, see Dikaios 1935, p. 165, and Robinson 1935, p. 180 with n. 1; and of the latter hoard, Karageorghis – Karageorghis 1965, p. 9.

⁴⁰ See, e.g., Kroll’s reference to Dressel’s (1900, p. 250) report, that the early-fifth-century Sakha hoard (IGCH 1639) included “an uncertain number of coin fragments, all of which were melted down as worthless” (Kroll 2001, p. 5, no. f).

contemporaneously embraced in either the Levant or Egypt⁴¹—regions with which Cyprus, an early coin producer, had long had close commercial contacts. Trade with these areas would have inevitably dictated a flexible, cosmopolitan Cypriot outlook on the media of payments in precious metal.⁴² As we shall see, Cypriot transactions in unmarked gold and silver might also have been a regular feature of the Cypriots' official fiscal dealings with the Achaemenid authorities. This brings us back to the Achaemenid style jewelry and bowls of the Vouni Treasure and to Achaemenid approaches to the gold and silver coming into the Persian royal treasuries as tribute.

The Achaemenid objects of the Vouni Treasure: a reassessment⁴³

The places of production of the Achaemenid style objects of the Vouni Treasure are unknown. A case, however, for the manufacture of such objects in Cyprus might be made with reference to one of the Vouni silver bowls. An unusual limestone artifact (Fig. 2), excavated in the palace of Amathous in 1975, is described by Antoine Hermary as “a solid object” in the shape of a phiale with a flaring rim, measuring six cm in height and 11 cm in diameter. Hermary was undecided as to whether the object was “an unfinished vase” or was meant to be “a model of a vase or, more likely, a model of a cup of an incense burner”.⁴⁴

As Georghios Papasavvas informs me,⁴⁵ given the small dimensions, shape, and carefully finished exterior of the vase, it is highly unlikely that we are dealing with an unfinished object. For, in that case, one would expect the excess stone to have been removed from the interior of the vase before its exterior was brought to a state of final completion. An interpretation, on the other hand, of the object as a model, specifically for drinking bowls, spontaneously emerges from its close similarity in both shape and dimensions with one of the Achaemenid silver bowls of the Vouni Treasure (Fig. 1b) and from the nearly identical profiles of bowls depicted in Achaemenid iconography.⁴⁶ A striking parallel is provided by bowls in the hands of the Lydian tribute-bearers of the Persepolitan Apadana reliefs.⁴⁷ On this evidence,

⁴¹ Cf., e.g., Van Alfen 2004-05, p. 16, succinctly charting the advent of coinage in the different areas of the southeastern Mediterranean.

⁴² Although there may be various reasons (such as systematic conversion of foreign to Cypriot coin) for the apparent limited “penetration” of foreign coins in a Cypriot environment (cf. Picard 1994, p. 9), perhaps this phenomenon was also due, at least in part, to Cypriot acceptance of international commercial payments in uncoined precious metal.

⁴³ Cf. Zournatzi 2000[a], p. 702, and 2008, pp. 247-48, anticipating the main thrust of the argument presented in this section.

⁴⁴ Hermary 2000, p. 144, pl. 82, no. 964 (Amathous inv. no. 75.519.2), with the comment: “[f]ragment d’un objet plein, qui a la forme d’une phiale à bord évasé. S’agit-il d’un vase inachevé, d’un modèle de vase ou, plutôt, d’un modèle de coupelle de brûle-parfum? Il paraît en tout cas indiquer la présence à proximité d’un atelier artisanal.”

⁴⁵ Personal communication, June 2009.

⁴⁶ The interpretation proposed here has been favorably received by A. Hermary. Personal communication, 7 August 2009.

⁴⁷ See Schmidt 1953, pl. 32. See also *ibid.*, pls. 31, 34, 38 and 41, for bowls of identical or similar profile being brought as tribute by Delegations V (Babylonians), VIII (Cilicians?), XII (Ionians), and XV (Bactrians). Close-up photographs of the objects in Walser 1966, pls. 43, 45, 51, 59, 65 and 67. Actual examples of Achaemenid bowls in ceramic from Iran are represented among the Pasargadae Fine Ware, see Stronach 1978, fig. 106 on pp. 242-43, and pl. 173 a and b.

the type of Achaemenid shallow metal bowl with flaring rim represented at Vouni might have been manufactured on Cyprus.

Achaemenid types of metalware in numerous stylistic variations were widely distributed in the provinces and along the margins of the Persian empire.⁴⁸ Their local production and adaptation in different areas are commonly attributed to Achaemenid influence on local tastes.⁴⁹ The stone model from Amathous might speak, however, for more than emulation of Persian tastes.

Herodotus' (3.96.2) depiction of the Persian king as "melting"/"smelting" the precious metal coming in from the taxes seems to imply that the gold and silver objects, in the form of which precious metal was hoarded, as indicated earlier, in the Persian royal treasuries, were manufactured by Persian authorities following the reception of the taxes and their processing in a royal foundry. Tax payments in precious metal would have presumably come in different forms, in keeping with the respective monetary devices used by Persia's various subjects.⁵⁰ Coin users—thus, also the Cypriots, whose annual fiscal obligations, together with those of Syro-Palestine and Phoenicia, were assessed at 350 talents of silver (Hdt. 3.91.1)—would have normally used coin for payments in precious metal. There are not a few reasons, however, why this seemingly straightforward reasoning may not be entirely reliable.

Assyrian lists of tributes, a salient element of the surviving record of royal Assyrian deeds, commonly include references to gold and silver objects presented to Assyrian kings by their subjects. Among these objects, which, as our texts make clear, were of the nature of compulsory payments, silver bowls held a prominent place, being often expressly described as "tribute bowls" and sometimes indicated to have weighed about one mina each.⁵¹ The Achaemenid rulers' approaches to their gold and silver revenues may not have differed too much from earlier Assyrian practice.

Herodotus (7.119.2-4) reports that in preparation for Xerxes' march against the mainland Greeks in 480, the inhabitants of the coastal Greek cities of Thrace were ordered to supply, among other things, "gold and silver cups and bowls and all manner of service for the table...for the king himself and those that ate with him", which were carried away after the "dinner" by the departing Persians. This is the only recorded instance of an express Persian demand for the manufacture of any

⁴⁸ For a recent, succinct overview of this phenomenon, see Boardman 2000, pp. 184-99. For the types and distribution of Achaemenid types of metalware along the western periphery of the empire and extensive bibliography, see Sideris 2008.

⁴⁹ The introduction of bowls of Achaemenid shapes in the provinces of the Persian empire under Persian influence is clearly documented by the numerous, locally made ceramic examples excavated at Sardis, all in contexts which postdate the capture of Croesus' capital city by the Persians (see Dusinberre 2003, pp. 172-95).

⁵⁰ Cf. Zournatzi 2000[b], pp. 245-46.

⁵¹ For examples and discussion, see, in the first place, Postgate 1974, esp. pp. 111-13 (1.5-7); 306-11 (ADD 758, ADD 927 and ADD 928, all listing, with their respective weights/values, offerings of silver bowls and other precious items); 119-20 and 123 (for the nature of such silver bowls, designated in the Assyrian texts *kappe KÙ.BABBAR madatú* or *kappe KÙ.UD madatú*, as compulsory payments by peoples subdued by the Assyrians); 127 (depictions of such bowls in tribute processions depicted in Assyrian art). Cf., in the same sense, Fales – Postgate 1992, e.g., nos. 62 and 127, and comments on p. xxiv, Zaccagnini 1989, pp. 196-98, and idem 1991[1974], p. 374 (with special reference to bowls and other vessels recorded as tribute in Hittite texts and subsequently redistributed as gifts to personages of high standing and the temple).

gold and silver items in the provinces, but the traditional Near Eastern practice of offering precious metal to royalty in the form of finished objects is eloquently documented in the Apadana reliefs. On the friezes carved along the monumental northern and eastern staircases of the building, elaborate vessels, jewelry, and weapons—almost certainly manufactured of precious metal—take pride of place among the luxurious and exotic offerings (precious metalwork, textiles, exotic animals, etc.) that are being brought into the presence of the enthroned Persian king by representatives of his various subject peoples.⁵²

There is no sound justification for limiting, as one often does, the relevance of the types of offerings brought by the Apadana tribute-bearers to symbolic expressions of fealty to the Persian monarch by his subjects, thus distinguishing them from actual imperial tributary requirements.⁵³ In as much as precious metal was regularly hoarded in Persian royal treasuries in the form of gold and silver objects, and the places of production of these vast treasures remain largely unknown, it cannot be precluded that, like the Assyrian rulers before them, the Persian kings regularly received their share of the annual revenues in the form of finished items.

Assyrian references to “tribute bowls” stress the weight of the vessels received as tribute. Where cultural preferences were at play, however, specifications of form would also be expected. And the visual message of the repetition of the same, basically Achaemenid-favored shapes in the metalware held in the hands of different foreign tributaries⁵⁴ on the Apadana reliefs strongly suggests the existence of cultural preferences in an imperial Achaemenid tributary setting. If the Achaemenids indeed required gold and silver tribute in the form of bowls, they might have specified (as they might have done in the case of other kinds of metalwork received as tribute) not only their weight(s) but also their forms.

Could the Amathous bowl be a model for such standardized production of precious vessels for the Achaemenids on Cyprus? The Amathous vase—closely resembling both the actual silver bowl from Vouni and the standardized Persepolitan sculptured examples and made of stone, as opposed to, say, more modest and perishable wood—would certainly tally with the idea of a standard, conveying the quantitative requirements and aesthetic preferences of the Persian king.⁵⁵

⁵² See Schmidt 1953, pls. 27-43 *passim*.

⁵³ Cf. Postgate’s (1974, pp. 121-27) commentary concerning the delivery of a part of the (required) tributes, which would “have included the small, valuable items, and probably horses” (pp. 122-23) to Assyrian monarchs by representatives of their subjects, probably during an actual annual ceremony that served as a model for the tribute processions depicted on Assyrian reliefs, and drawing a direct comparison (p. 127) between the latter reliefs and the Apadana tribute procession.

⁵⁴ Scholars investigating the identity of the tribute bearers of the Apadana reliefs have long recognized that the types of fine metalwork brought by different delegations do not necessarily constitute indicators of the bearers’ ethnic identities. While there has been a pronounced tendency to consider that the bearers were not “necessarily from the region of manufacture” (Moorey 1985, p. 22, with references), the more or less obvious implication of the context—namely, that Persian types of metalwork were manufactured in a number of different regions—is nonetheless acknowledged by, among others, P. Amandry (below, n. 74) and Boardman (2000, pp. 184 and 194).

⁵⁵ For Persian royal standards in stone, see, e.g., the official pyramidal weights in green diorite, inscribed in the name of Darius, in Schmidt 1957, pp. 105-7. Though not imposed upon the everyday practices of the empire’s subjects, official standards of weight and measures were nonetheless an essential feature of imperial fiscal administration. See, e.g., Hdt. 3.89.2 (cf. 3.95), stating that the amounts of tribute imposed upon Persia’s various subjects were reckoned by the “Babylonian” talent, when paid in silver, while the

Taking this reasoning a step further, Cypriot gold and silver payments to Persia in the form of finished objects might not be confined to silver bowls.⁵⁶ The type of Achaemenid *omega*-shaped bracelets with animals' heads finials, represented by four gold specimens at Vouni (Figs. 1e,f,g, 4, 6), is another case in point. Writing in 1948, Einar Gjerstad noted that "[b]oth typologically and chronologically" the four gold bracelets with goats' and calves' heads finials found at Vouni "are so closely related to the Persian types that we must consider them to be of Persian workmanship".⁵⁷ Gjerstad was seemingly thinking in particular of the characteristic incurved hoop of the Vouni pieces,⁵⁸ prominently featured in depictions of jewelry worn in the Achaemenid court.⁵⁹ Long considered a mark of Achaemenid (rather than earlier [e.g., Assyrian] or provincial) production of bracelets with animals' heads finials, the incurved hoop is also represented, as we now know, in a palatial Persian context by the two elaborate gold bracelets with ibices' heads finials of the Pasargadae Treasure (Fig. 3)⁶⁰ which provide close parallels to the Vouni examples.

Even though "the *omega*-shaped hoop [was] apparently confined to the Achaemenid period"⁶¹ and was evidently tied to Achaemenid court preferences, the places of production of these bracelets remain unknown. Other details of workmanship have been seen since the 1990s to warrant close comparison of the *omega*-shaped gold bracelets of the Pasargadae Treasure with western metalworking traditions.⁶² These recently prompted Dyfri Williams to suggest, more specifically, that the pair is "not perhaps Achaemenid, as is so often claimed, but Cypriot".⁶³ If

"Euboic" talent was the standard measure for payments in gold. For Achaemenid standards of weights and measures in general, see Briant 1996, pp. 300, 426-27, 464, 961, 963-64, 998. A stone weight, inscribed "III sigloi" and "king Ni[...]" (Masson 1983, no. 368), suggests the use of stone for official standards locally in Cyprus.

⁵⁶ Contributions of different kinds of metalwork by the same subject people are attested on the Apadana reliefs. See, e.g., the bowls, amphoras with handles in the forms of animals, and bracelets (or torques?, cf. Roaf 1974, 101) with finials in the form of winged griffins' protomes brought by different members of the Lydian delegation (Schmidt 1953, pl. 32).

⁵⁷ Gjerstad 1948, p. 392.

⁵⁸ Cf. Gjerstad 1948, p. 391, referring to the "typical Persian depression opposite the opening..."

⁵⁹ The relevant evidence is cited in Gjerstad 1948, p. 392; P. Amandry 1958, p. 11; Moorey 1985, p. 32. As earlier scholars have pointed out, such bracelets, always worn in pairs, are clearly visible around the wrists of, e.g., royal guards on the glazed-brick reliefs of the Achaemenid palace at Susa (see, e.g., Curtis – Tallis 2005, fig. 51 on p. 87, and fig. 52 on p. 88), nobles in Persian and Median attire on the Persepolis reliefs (e.g., Walser 1980, pls. 63, 64, 76), and the personifications of the Medes and the Persians carved on the base of the Egyptian-made statue of Darius I found at Susa (Roaf 1974, pp. 96 and 101, and drawing on p. 99).

⁶⁰ Stronach 1978, pp. 168 and 173-76, fig. 85.4 on pp. 200-1, pls. 146d and 147a-f. For an earlier known example of *omega*-shaped bracelets (with lions' heads terminals) excavated in a grave at Susa, see conveniently, Harper – Aruz – Tallon 1992, p. 246 (F. Tallon), nos. 172-173, and color illustrations on p. 247.

⁶¹ Moorey 1985, p. 32

⁶² Ogden – Williams 1994, p. 226, noting, among other things, the Pasargadae bracelets' assembly from separate components ("hoops of twisted wires and hollow sheet-gold heads with filigree-decorated collars and separately made and inserted horns and ears") and the use of filigree as features, which tend to be lacking in oriental examples, and which could point to these bracelets' "origin in Cyprus, the Syria-Levantine coast or Asia Minor" or their production by Greek or Greek-trained goldsmiths working for the Persian kings.

⁶³ Williams 2005, p. 110.

true, this leaves open the possibility that their counterparts from Vouni could also have been manufactured by Cypriot craftsmen.

Considerations of style and workmanship—crucial in proposing the “Persian” and “Cypriot” manufacture, respectively, of the Vouni and Pasargadae bracelets—dominate attempts to locate the workshops that produced the variations of the largely unprovenanced, extant examples of Achaemenid jewelry and to distinguish pieces manufactured in royal workshops (and presumably expressing “official”/“Court” norms) from provincial adaptations combining local with Persian features and tastes. Valuable though they may be in general for defining the particulars of different artistic traditions, such considerations may still be of limited value in elucidating (official) imperial patterns of production.

The oblong (hence, presumably omega-shaped?⁶⁴) bracelets (or torques?⁶⁵) brought by Medes (Delegation I), Lydians (Delegation VI), pointed-hat Scythians (Delegation XI), and Sogdians or Chorasmians (Delegation XVII) on the Apadana reliefs⁶⁶ show that the craftsmen of subject states were enjoined to make jewelry for the Achaemenids. These representations would allow at once for the production of “Court” jewelry in different provincial settings and for stylistic and technical variation, subject to different regional metalworking traditions and evolving trends in metalworking.⁶⁷ Argued to be “not perhaps Achaemenid...but Cypriot”, yet evidently owned by a member of the Achaemenid court, the Pasargadae gold bracelets could represent a fourth-century version⁶⁸ of “Court” jewelry enriched with features from a western/Cypriot milieu and offer leads to otherwise unattested supplies of jewelry to the Persian homeland capitals from Cyprus.

Bracelets with a remarkable “Persian” flavor (such as Gjerstad thought he could recognize in the pieces from Vouni) found in distant corners of the empire—and usually interpreted as diplomatic gifts from the Persian king to provincial grandees⁶⁹—may not be exclusively liable, either, to circumstances of a homeland Persian production. A small limestone plaque from Egypt, published by Henri Frankfort, is carved with Achaemenid motifs. Judging by carving flaws attested on the stone, Frankfort interpreted the find as a trial-piece, rather than a model, and suggested that it belonged to a “Persian goldsmith”.⁷⁰ The identity of the jeweler is unknown. This plaque presents us nonetheless with concrete evidence—analogueous to

⁶⁴ As suggested by P. Amandry 1958, pp. 11 and 17.

⁶⁵ Cf. Roaf 1974, 101.

⁶⁶ See Schmidt 1953, pls. 27, 32, 37 and 43, respectively, and the close-up photos in Walser 1966, pls. 31 (Delegation I), 47 (Delegation VI) and 58 (Delegation XI). For the types represented, see Schmidt 1953, pp. 85, 88-89 (wherein the bracelets or torques are called “rings”), and Moorey 1985, p. 32.

⁶⁷ The rich potential for variation (implied *a priori* by the different details of the bracelets in the hands of the Apadana tribute bearers, see above, n. 66) also emerges from the actual examples treated in, e.g., P. Amandry 1958, Stronach 1978, pp. 173-76, Moorey 1985, pp. 32-33, Williams 2005, pp. 210-11 with col. pls. 3-5, Curtis and Tallis 2005, nos. 152-171. The Greek and Egyptian elements attested in the decoration of the vessels carried by Parthian or Bactrian tribute bearers in the Apadana reliefs (Boardman 2000, p. 194, fig. 5.76) may offer an indication of the parallel potential for interaction among distant regional metalworking traditions that was inherent in such a complex, imperial artistic environment.

⁶⁸ For a dating in the first half of the fourth century, see Stronach 1978, pp. 174-75.

⁶⁹ Cf., in the same sense, Williams 2005, p. 110. For the bestowal of jewelry and other items by Persian kings as tokens of honor, see, e.g., Xen. *Anab.* 1.2.27.

⁷⁰ Frankfort 1950 with pl. III, and references to other known instances of such models and/or trial pieces. Cf. P. Amandry 1958, p. 16 n. 55.

that offered by the Amathous stone bowl—that Achaemenid “Court style” jewelry was manufactured in workshops in Egypt.⁷¹

Gold, *omega*-shaped bracelets with goats’ and calves’ heads finials, as in the Vouni Treasure, were excavated in Colchis, Georgia, in a burial dating from the end of the fifth or the first half of the fourth century BC (Figs. 5 and 7).⁷² One of the Georgian examples is furnished with a flat hoop,⁷³ and there is a distinct impression of the execution of the respective Colchis and Vouni pieces by different hands, probably in different regional workshops/traditions (Figs. 4-7). However, an extraordinary formal and stylistic affinity among the Vouni and Colchis pieces (and their kinship with Achaemenid art) emerges from the stylizations of their respective goats’ and, especially, calves’ heads finials. This close kinship could offer further scope for contemplating, among other possibilities, a production, based on officially disseminated models, of Achaemenid-favored jewelry in a number of different subject provinces, potentially including Cyprus.⁷⁴

Raised here specifically with reference to the Achaemenid style vessels and jewelry of the Vouni Treasure, the possibility of Cypriot tributary contributions to Persia in the form of precious objects has implications in general for the discussion of Achaemenid metalwork attested in Cyprus. To mention a notable example, the portrait (of the local ruler?) featured on the reverses of the late-fourth-century gold coins of Cypriot Salamis registers, among other things, a surprising Cypriot preference for Achaemenid torques with finials in the form of animal protomes.⁷⁵ This preference could issue forth from a spontaneous interplay of Achaemenid and local tastes or, as perhaps in the case of the Egyptian Ptah-hotep,⁷⁶ allude to a distinction granted by the Persian king.⁷⁷ Imperial demands for precious metalwork on the Cypriots might also be responsible, however, for setting initial parameters for the adoption in Cyprus of this splendid type of Achaemenid jewelry which is infrequently seen outside Iranian contexts.

⁷¹ Cf. Frankfort’s (1950, p. 112) comment that “the making of the characteristic Achaemenian jewelry can be expected wherever satraps and other high officials were in residence”. *Pace* Frankfort, however, it cannot be automatically assumed that the piece belonged to a “Persian” goldsmith. For the Achaemenids’ high regard for Egyptian goldsmiths, see Kent 1953, DSf ll. 49-51, where the text identifies “the goldsmiths who wrought the gold” for Darius’ palace at Susa as Medes and Egyptians. For the making of Persian fine metalwork in Egypt, see the relief of an Egyptian artisan working on a rhyton of Persian type on the Tomb of Petosiris at Hermopolis (Egypt), dating immediately after the Persian period (Boardman 2000, pp. 184 and 186, fig. 5.67a).

⁷² See Lordkipanidze – Platz 2007, pp. 47 and 49 (with color photographs). The items are in the Georgian National Museum nos. 11-974:14a-b (goat-headed finials) and 11-974:15 (calf-headed finials).

⁷³ This type of hoop is also attested on the Apadana reliefs, see Schmidt 1953, pl. 32, and Walser 1966, pl. 49.

⁷⁴ P. Amandry (1958, p. 18) pointed up a broad correspondence between, on the one hand, the distribution of mining districts in the empire and, on the other hand, the locations of workshops producing fine metalwork, as these emerge from the Apadana reliefs and the Foundation Charter of Darius’ palace at Susa (Kent 1953, DSf). Such demands would be logical in general in areas with abundant reserves of precious metal, hence, also in the case of Cyprus (cf. Zournatzi 2008, p. 248 and n. 73 on p. 252).

⁷⁵ See Markou 2006, pp. 137-39 and figs. 1 and 8, for a discussion of this unique attestation of torques of Achaemenid type in Cyprus and parallels, and p. 143 for an interpretation of the portrait as representing the heroic founder or the king of the city.

⁷⁶ Bothmer 1960, p. 77, no. 64, fig. 151 on pl. 60.

⁷⁷ See, e.g., Xen. *Cyr.* 1.3.3 and 8.2.8.

Concluding remarks

The thoughts on the possible monetary significance of the objects of the Vouni Treasure presented in the foregoing discussion have been primarily meant to draw attention to hitherto unexplored possibilities. Seen through the lens of an economy that was presumed to have been dependent on coinage, the gold and silver bracelets and vessels of the Vouni Treasure have long failed to impress us as anything more than personal luxury and prestige items. The complexity, however, of Cyprus' environment calls for reassessment from different standpoints. If the Vavla "hoard" is correctly perceived as a single find, its mixed contents (coins, jewelry, weights) could allude to the continuity of Near Eastern monetary diversity in classical Cyprus despite the island's minting of coinage. The gold and silver coins, vessels, and jewelry of the Vouni Treasure may offer yet another view on Cypriot society as a meeting ground for West and East. Suitable though they may have been as symbols of wealth and as prestigious gifts, precious vessels and jewelry fulfilled a range of monetary functions in Achaemenid contexts and are featured among the items received by the Achaemenids as tribute from their subjects.

The three Cypriot silver coins buried in the foundation deposits of the Apadana at Persepolis⁷⁸ indicate that Persian rulers did not ignore the importance of the Cypriots as coin-producers. Achaemenid preference for precious metal in the form of finished objects and the prominent Cypriot tradition in fine metalwork may have nonetheless prompted the Persian kings to require tributary contributions in alternative forms of currency; namely, gold and silver jewelry and metalware manufactured on Persian demand and to Persian specifications⁷⁹—an imperial requirement that would further promote, alongside the extensive local transactions in coin, the Cypriots' uses of unmarked gold and silver as money.

Addendum

Following the submission of the present article for publication, there was an opportunity to view in the Cyprus Museum, where they are currently conserved, the items of the Vouni Treasure described as four "lumps of gold",⁸⁰ never previously illustrated. These are in fact a fragment of a bar ingot, a likely second ingot (or perhaps coin?) fragment, a small spherical bead, and what appears to be a folded sheet (Fig. 8). This "miscellaneous"/"cut" gold, which finds numerous parallels in silver in the contents of contemporary mixed hoards from the adjacent territories of the Persian empire, and which calls for a more detailed future treatment, would tend

⁷⁸ See Schmidt 1953, pp. 70 and 79, and idem 1957, pp. 110, 113-14, nos. 37-39.

⁷⁹ Cf. Zournatzi 2000[a], p. 702, and 2008, p. 248. The arguments presented here also raise inevitably the question of Cypriot conformity to standards which arguably applied to official Achaemenid gold and silver (see above, n. 15). To my knowledge, published experimental data for such an investigation is presently limited to the results of analyses of 21 Cypriot gold coins attributed to kings Milkyathon and Pumyathon of Kition (Gondonneau – M. Amandry 2002) and of a similarly small number of Achaemenid gold coins (see, e.g., Gondonneau - Guerra 2000). It is hoped that it will be possible to address this question in the near future through systematic analyses of Cypriot and Achaemenid silver and gold.

⁸⁰ Gjerstad *et al.* 1937, p 238, no. 292p.

to lend additional support to the foregoing interpretation of the sum of the Vouni Treasure as a monetary hoard.

Acknowledgments

Warm thanks are due to David Stronach, Anne Destrooper-Georgiades, Kathleen McCaffrey, Anna Michailidou, Georghios Papasavvas, and Gertrud Platz-Horster for helpful discussions and/or comments on earlier drafts of this paper, and to Vasiliki Kassianidou for generously making available her commentary (2009) on letter EA 35 of the Tell el Amarna archive in advance of publication. I would also like to express my debt to the Director of the Department of Antiquities of Cyprus, the Georgian National Museum, the Medelhavsmuseet, Antoine Hermary, and David Stronach for permission to illustrate the artifacts in Figs. 1-8 and photographs, and to the Director and staff of the Cyprus Museum for facilitating my investigation of the non-coin contents of the Vouni Treasure.

Abbreviations

<i>AJA</i>	American Journal of Archaeology
<i>AJN</i>	American Journal of Numismatics
<i>AntK</i>	Antike Kunst
BAR	British Archaeological Reports
CAD	The Assyrian Dictionary of the Oriental Institute of the University of Chicago (eds. A.L. Oppenheim et al.), (Chicago and Glückstadt 1956 -)
<i>Cahiers DAFI</i>	Cahiers de la Délégation Archéologique Française en Iran
CCEC	Cahiers du Centre d'Études Chypriotes
<i>CH</i>	Coin Hoards (eds. M.J. Price et al.), (London 1975 -)
<i>IrAnt</i>	Iranica Antiqua
<i>JHS</i>	Journal of Hellenic Studies
<i>JNES</i>	Journal of Near Eastern Studies
NC	Numismatic Chronicle
<i>NNA</i>	Nordisk Numismatisk Årsskrift
<i>OpArch</i>	Opuscula Archaeologica
<i>OpAth</i>	Opuscula Atheniensi
<i>RBN</i>	Revue Belge de Numismatique
<i>RDAC</i>	Report of the Department of Antiquities, Cyprus
<i>RN</i>	Revue Numismatique
<i>StIr</i>	Studia Iranica

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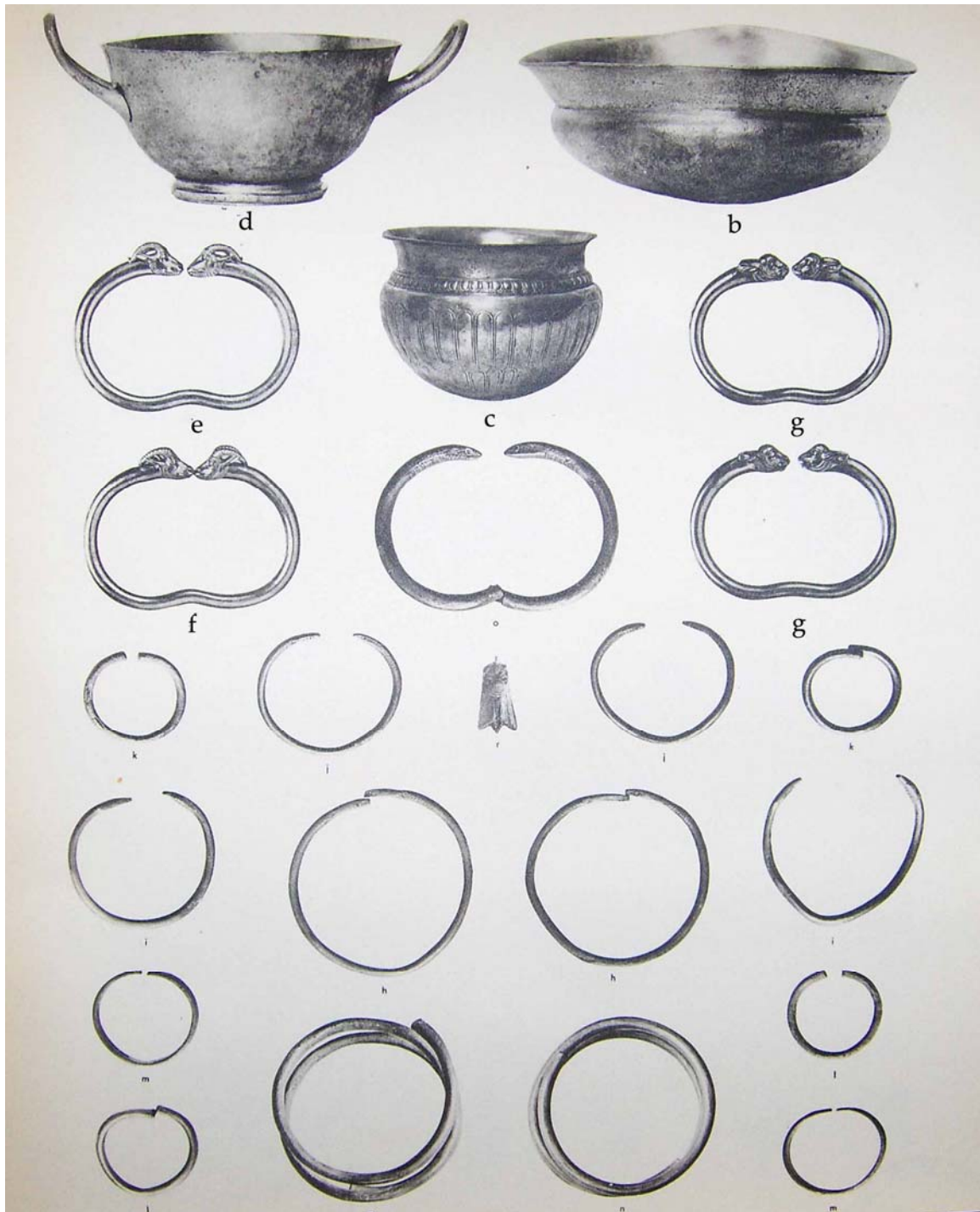


Fig. 1: Part of the non-coin contents of the Vouni Treasure. Concealment c. 390-380 BC. Cyprus Museum. Adapted from Gjerstad *et al.* 1937, pl. XCII (Courtesy Medelhavsmuseet)



Fig. 2:

Stone bowl from Amathous. D. 11cm, H. 6 cm (Courtesy Antoine Hermary)

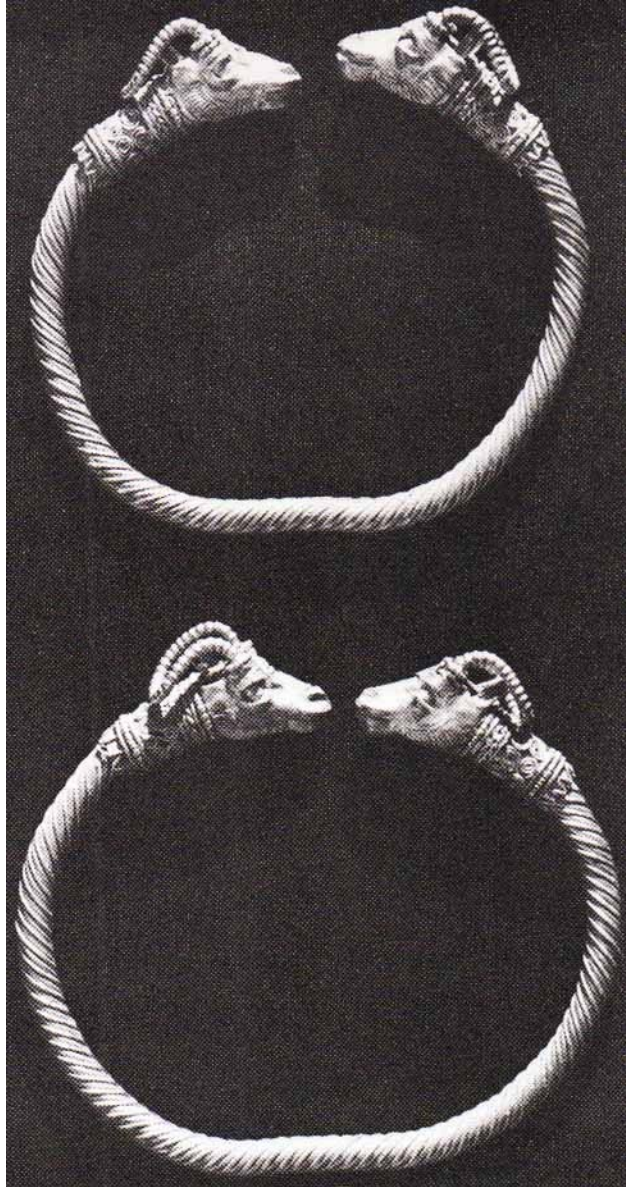


Fig. 3: Gold, ibex-headed bracelets of the Pasargadae Treasure. First half of the fourth century BC. D. 7.0 cm and 6.5 cm. National Museum of Iran. After Stronach 1978, pl. 147a (Courtesy David Stronach)

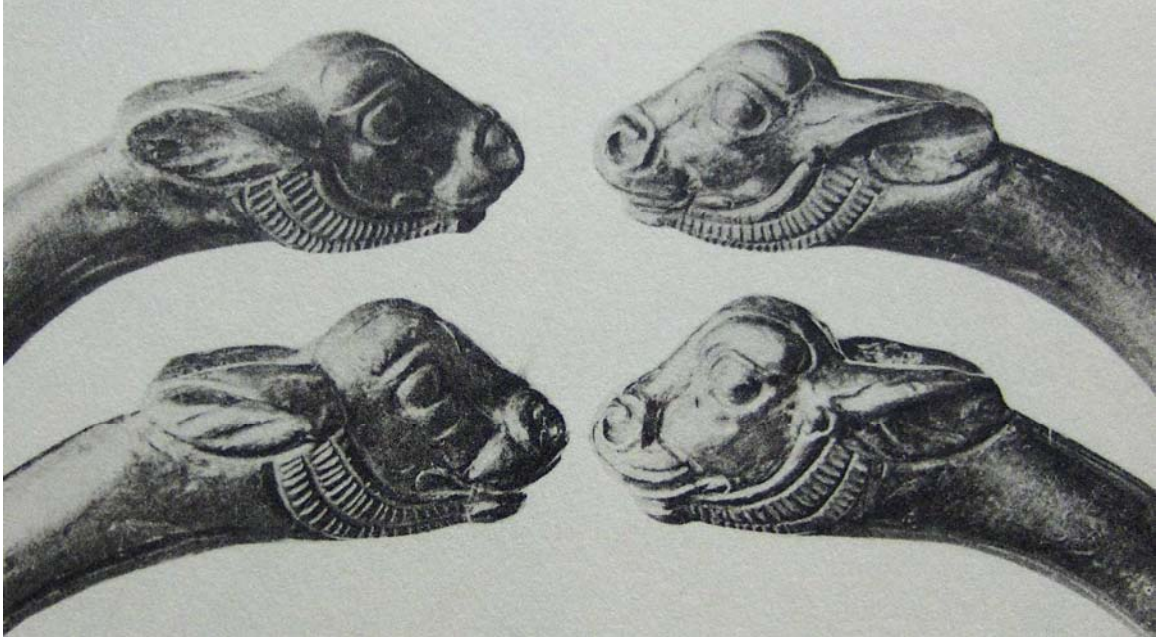


Fig. 4: Detail of gold calf-headed bracelets. Vouni Treasure. Cyprus Museum. Adapted from Gjerstad *et al.* 1937, pl. XCI.7 (Courtesy Medelhavsmuseet)



Fig. 5: Gold calf-headed bracelet. Vani, Tomb 6. 5th/4th century BC. D. 9.48 cm. From the Collection of the Georgian National Museum (© Georgian National Museum)

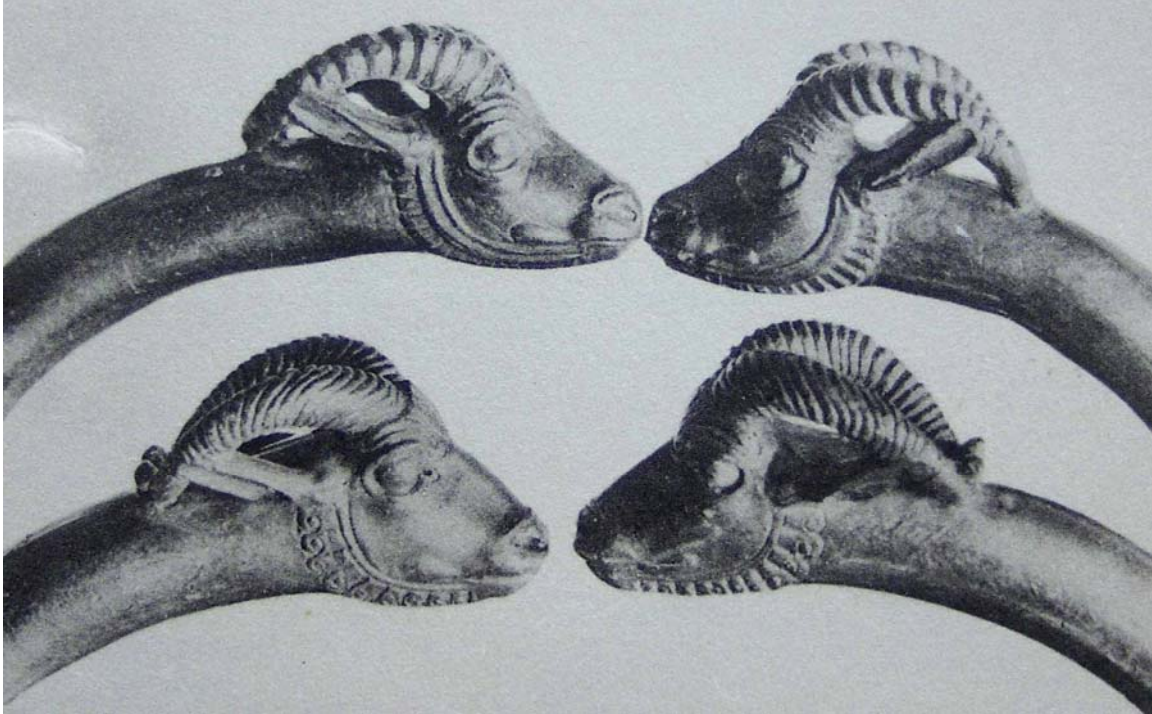


Fig. 6

Detail of gold goat-headed bracelets. Vouni Treasure. Cyprus Museum. Adapted from Gjerstad *et al.* 1937, pl. XCI.6 (Courtesy Medelhavsmuseet)



Fig. 7: Gold goat-headed bracelets. Vani, Tomb 6. 5th/4th century BC. D. 10.19 cm and 9.85 cm. From the Collection of the Georgian National Museum (© Georgian National Museum)



Fig. 8: Miscellaneous/cut gold. Vouni Treasure. Cyprus Museum
(Courtesy of the Director, Cyprus Department of Antiquities)