Middle Persian Inscriptions on Sasanian Silverware

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SASANIAN SILVER OBJECTS challenge the art historian to explain and relate questions of materials, techniques, styles, and motifs within an often illusive historical frame. To the social historian, these vessels provide an expression of the culture of the Iranian feudal aristocracy with its dynastic ideology. The epigrapher and philologist, in his turn, is challenged by the inscriptions sometimes found on the silverware. As examples of these have accumulated and been compared, their interpretation has progressed. Y. I. Smirnov gave careful facsimiles of inscriptions on the vessels he published; and E. Herzfeld notably advanced their reading. More recently, V. A. Livshits and V. G. Lukonin have presented revised readings of these; and R. N. Frye has published a further reinterpretation, along with some new examples. W. B. Henning's revisions and his analyses of newly found inscriptions formed a crucial contribution.² The assembling of these and additional examples helps to clarify the entire corpus.

The existing body of inscriptions divides into three chronological groups: A, about 300 A.D.; B, about 500-695; C, about 700 and after. The chronology of the inscriptions may, perhaps, not be identical with that of their vessels. The owner's name and/or the object's weight may occasionally be a later addition to an older vessel. R. N. Frye has suggested that such inscriptions could indicate registration of the vessel for taxation;³ Kawād I's latter reign (499-531) or the periods of Xusrau I and II (531-579, 591-628) would be likely times for such a registration. Group B inscriptions are in harmony with the orthography of the late sixth-century papyri and of the late Sasanian inscriptions. They are distinguished from Group A by paleography and from Group C by the difference in weight standard. The internal sequence of Group B inscriptions may eventually be better established by a more refined paleographic analysis.

1. This article is an expanded version of the paper delivered by the author at the Sasanian Silver Conference held at The Metropolitan Museum of Art in January, 1973.

2. Smirnov, Vostochnoe Serebro (St. Petersburg, 1909). Herzfeld, "Postsasanidische Inschriften," Archaeologische Mitteilungen aus Iran 4 (1932) pp. 147-156. Livshits and Lukonin, "Srednepersidskie i sogdyskie nadpisi na serebryanykh sosudakh," Vestnik Drevnei Istorii (1964) 3, pp. 155-176. Frye, "Sasanian numbers and silver weights," Journal of the Royal Asiatic Society (1973) pp. 2-11. References to the inscriptions in these four works are hereafter given by the abbreviations S., H., L., and F. plus the appropriate designating numbers. See also Lukonin, Persia II (Cleveland/New York, 1967); Henning, "Mitteliranisch," Handbuch der Orientalistik I, iv Iranistik, I (Leiden, 1958) pp. 49-52; "New Pahlavi Inscriptions on Silver Vessels," Bulletin of the School of Oriental and African Studies 22 (1959) pp. 132-134; "A Sassanian Silver Bowl from Georgia," BSOAS 24 (1961) pp. 353-356; with Guitty Azarpay, "A Hunting Scene on an Inscribed Sassanian Silver Vessel," Iranica Antiqua 7 (1967) pp. 145-152.

3. "Sasanian Silver and History," Iran and Islam . . . V. Minorsky (Edinburgh, 1971) pp. 255-262.



GROUP A (ABOUT 300 A.D.)

ו. ניערייי עצעיי ערטאיניש בארין אינש באירי איין געשאיי איין געעיייע ערטאיין איין געשאיין איין איין איין איין איין עראיעי איי געעיייע געעאייע איין געעאיי

p'pky bthšy BRH 'rthštry [BRH?...] '/s y 'rthštry bthšy MN ZWZN 'symy s xx xx x iii ZWZN i

Pābag, bidaxš, son of Ardašīr, [son of] ... Ardašīr, bidaxš. Of drahm-silver, 53 s[tēr], 1 drahm

The well-known portrait-bowl from ancient Armazi, the capital of Georgia, dates from the late third century. Although problems persist in the reading, the inscription does show the general pattern.⁴ First comes the owner's names and title. Then the object's weight is expressed in ster and drahm, according to the standard of the Sasanian drahm. Perhaps the term "drahm-silver" is still more specific, indicating either that the fineness of the silver used is comparable to that of the Sasanian drahm coin or that actual coins or coin blanks formed the source of the metal. In other inscriptions the unit dang likewise occurs, completing the system of staterdrachma-obol.5 The word order of the weight formula is the most common one: unit + numeral, unit + numeral. Compare, for example, in the papyri: PWN dyn'l xx iii iii W trms ii, "for 26 denār and 2 tarmas."6 Also important, although not surprising, is the abbreviation s for styr. The abbreviating of units of measure before numerals was a frequent Sasanian practice.7

4. Compare C. Amiranashvili, "Une coupe en argent du début de l'époque sassanide provenant des fouilles d'Armasiskhevi (Géorgie)," *Rivista degli Studi Orientali* 34 (1959) pp. 149–162 and Table III; Henning, "Silver Bowl"; Lukonin, *Iran v epokhu peroykh* sasanidov (Leningrad, 1961) pp. 60–61. An abridged facsimile is given in Frye, "Sasanian numbers," p. 2.

5. Note the use of the Greek terms, within the Iranian area, on the Taxila vessel, which is discussed in K. Trever, *Pamyatniki* greko-baktryskogo iskusstva I (Moscow-Leningrad, 1940) p. 101.

6. No. 12, pp. 8–9, in O. Hansen, Die mittelpersischen Papyri der Papyrussamlung der Staatlichen Museen zu Berlin (Berlin, Abhandlungen der Preussischen Akademie der Wissenschaften 1937, 9). When the material measured is specified, the papyri often follow the pattern: material + numeral + unit.

7. Thus "g" for griw ($=\mu \delta \delta \omega_5$) as a measure of grain in the Dura-Europos pay-lists, nos. 22–23 in R. N. Frye, ed., Corpus Inscriptionum Iranicarum III, Part 3, i The Parthian and Middle Persian Inscriptions of Dura-Europos (London, 1968); see also Henning's

Such a scribal convention is attested already in the Parthian period on ostraca and a silver vessel.⁸

2.

tgdwn 'symy xx x iii iii iii MCY W ZWZN iii tgdwn silver, 39 stêr and 3 drahm (F. 17)

The script employed on the fluted bowl in the collection of Mohsen Foroughi in Teheran compares closely with that of the Armazi bowl. MCY, as Frye suggests and as is clear from its occurrence in No. 14 (a), where it parallels "s," functions as the ideogram for *stēr*. When one compares the phrase "*tgdwn*-silver" with the Armazi inscription's "*drahm*-silver," W. B. Henning's emendation to TGLWN, *saxt* (thus "weighed silver") appears quite cogent. The miswriting of "d" for "l" in the inscriptional script would be no more difficult than erroneous "d" for "y"; in Kirdēr's inscription at Naqš-i Rustam, the word YBLWNt, *burd*, is miswritten D[B]L(WN)t.⁹

3. ZWZN xx xx xx xx iii iii ii 88 drahm (F. 15)

A silver bowl adorned with the Seleucid anchor is in the collection of the Musée d'Art et d'Histoire in Geneva. Its numerals are rendered in the inscriptional

comments, Gnomon 26 (1954) pp. 476-480. It occurs again in Šāpūr I's Ka'ba-ye Zardošt inscription, Middle Persian l. 25 (in contrast to Parthian l. 22, where the terms follow the numeral and are spelled out), along with "h" for *xwafn* (one-tenth of a *grīw*) and "p" for *pās*, a liquid measure. See M. Sprengling, *Third Century Iran, Sapor and Kartir* (Chicago, 1953). For "s" in Sogdian, see below, p. 120.

^{8.} Hm for HMR mry, "mar of wine," on the Nisa ostraca; see I. M. Dyakonov and V. A. Livshits, *Dokumenty iz Nisy* (Moscow, 1960). Perhaps "m" in Hansen, *Papyri*, 32a recto is this same measure. "Z" occurs for zwzyn (whether read as Aramaic, Parthian, or Armenian) on the Sissian bowl; see A. Perikhanian, "Inscription Araméenne Gravée sur une Coupe d'Argent Trouvée à Sissian (Arménie)," *Revue des Études Arméniennes* 8 (1971) pp. 5-11.

^{9.} Line 54; compare the parallel YDBLWN at Sar Mašhad, 1. 31; C. J. Brunner, "The Middle Persian Inscription of the Priest Kirdēr at Naqš-i Rustam," *Near Eastern* . . . *Studies in Honor of George C. Miles* (Beirut, 1974) p. 110.

style. Here the alternative manner of citing a weight occurs; only the measure of the fundamental unit, the *drahm*, is given.¹⁰

4.

کیلا مرحمی مرحمی الله مرحمی المالی المالی المالی المالی المالی المالی مرحمی مرحمی مرحمی مرحمی مرحمی مرحمی مرحمی

- ZNH 'bzn (s) y NPŠH hnc bzn ZWZN ii c(xx xx xx) xx-x iii iii
- This water-vessel [is] property of S . . . ; . . . 296 drahm

(FIGURE I)

In contrast with the essentially uncial script of Nos. 1-3, the inscription on the Metropolitan Museum of Art's portrait bowl is less lapidary in style and shows frequent ligatures. It corresponds, not with the third-century relief inscriptions, but with the semicursive dipinto writing of the Dura-Europos synagogue inscriptions (252-253 A.D.). The rendering of ZNH, $\bar{e}n$, is a notable example. Nevertheless the inscription remains difficult, particularly the possibly abbreviated words.¹¹

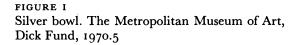
GROUP B (ABOUT 500-695)

Group B comprises the majority of examples and of problems. It is particularly important that the units of measure and the numerals in these inscriptions be accurately determined. But a major difficulty has been the reading of a looping sign that occurs in Nos. 5–16 and perhaps in No. 17. (It is the initial sign in No. 5.) Quite importantly, it also occurs in the late Sasanian funerary inscription at Iqlid in Fars. At first, attempts were made to read this sign as part of a word—k'sk, "weight," or s'lk, "ingot." The evident presence of numerals led Livshits and Lukonin to interpret the sign as "200."

10. On numeral signs in the relief inscriptions, see Frye, "Sasanian numbers," pp. 3-6.

11. For discussion of this bowl, see Prudence O. Harper, "Sasanian Medallion Bowls with Human Busts," *Near Eastern... Studies* ... *Miles*, pp. 61–80; a slightly different reading of the inscription is there offered. I am grateful to Professor Walther Hinz of Göttingen for pointing out the term *ābzan*, "water-vessel" (particularly

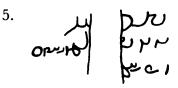




They thus brought the weight readings into a realistic, if erratic, relation to the actual weights of the vessels. But the reading "200" is excluded by the normal conventions of the script, as Frye has pointed out.¹² A similar criticism can be made against Frye's reading, "20." Not only is an unusual numerical orthography posited by this reading, but it also becomes necessary to occasionally disregard one stroke in order to obtain a reasonable weight reading. Thus another explanation must be attempted, one agreeing with Middle Persian orthography and Sasanian conventions for quantitative expressions.

for use in bathing). In the transliteration of this and the following inscriptions, a dash is used to indicate a ligature between distinct numerals or numeral groups. On the interpretation of the Dura-Europos texts, see particularly B. Geiger, "The Middle Iranian Texts," *The Excavations of Dura-Europos, Final Report VIII, Part I: The Synagogue* (New Haven, 1956) pp. 283-317.

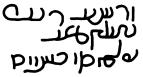
12. "Sasanian numbers," p. 6.



s-xx-x [i] (i) ii ZWZN ii [i ḥw]lm¹bḥt NPŠH 34 s[tēr], 3 drahm. Property of Xorrambaxt (s. 87, H. 9, L. 6, F. 6)

This inscription occurs on a vase adorned with medallions, each containing a bird. The looping sign is in its least cursive form. The Livshits-Lukonin reading is ii-c-x iii ZWZN'n, "213 drahms." It requires, besides a quite ungrammatical use of the plural, two unlikely ligatures (top of ii + c, c + x) and a surprising reduction of the "100" sign. The natural reading, rather, is \dots -x \dots ii ZWZN ii., assuming that the inscription originally continued across the obliterated area. The pattern is clearly unit + numeral; hence the first numeral must designate ster. Frye so regards it; but his reading, xx-x-x iii ZWZN ii, is unsatisfactory. The notation x-x is too extraordinary to be accepted; it is not comprehensible even as an error. The initial, looping sign cannot be "20," since in the Iqlid inscription it precedes the numeral "100." Both readings would require violation of clear norms of Middle Persian notation.

The problem of the beginning of No. 5 is that (a) no unit seems specified, and (b) the sole plausible reading of it as simply numerals, xx-xx-xl-x, is far too large. The solution to both problems is reading the looping sign just as it appears, as "s" for *ster*. An abbreviation in ligature with a numeral is attested by the Dura-Europos pay-lists, the papyri, and other silver vessels (Nos. 14, 36). The Iqlid inscription becomes clarified together with No. 5:



NKSY' KSP s-ii-c mzd plmwt¹ YHBWNt

Property worth 200 s[ter] was ordered to be given as payment.¹³

13. Lines 19-21; see Frye, "Funerary Inscriptions in Pahlavi from Fars," W. B. Henning Memorial Volume (London, 1970) pp. 155-156 and pl. v.

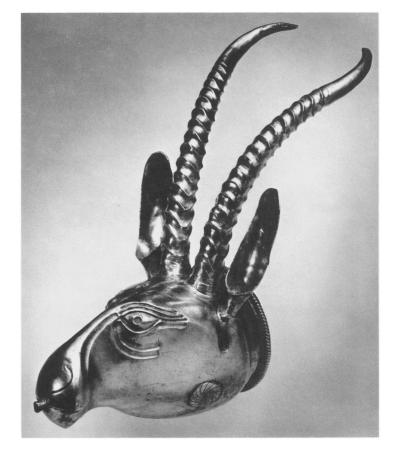


FIGURE 2 Silver rhyton, mercury gilded. Collection of Mrs. Dorothy B. Moore III

This reading not only satisfies the orthography, it also obtains an appropriate value for the Sasanian *drahm*standard. (See table of weights, below, page 120.)

6.

s-xl-x iii ii 55 s[tēr] (F. 9) (FIGURE 2)

One of three further examples of "s" in noncursive form is seen on a rhyton in the shape of an antelope's head, in the collection of Mrs. Dorothy B. Moore III. The inscription is brief but clear.

7. JUULU

s-xl-iiiiii

46 s[tēr]

The elongated bowl in the Schimmel collection¹⁴ carries an inscription underneath. It follows the owner's *tamga* or device, which occurs in place of his name.

sng s-xx-xl-x iii ZWZN ii pylwc'n

By weight, 73 s[tēr], 2 drahm. Belonging to Pērōz

(s. 56, h. 7, l. 1, f. 3)

This inscription occurs on a Hermitage plate depicting a royal antelope hunt from camel-back. Livshits and Lukonin estimate that damage to the plate amounts to a loss of one-tenth the original weight. Thus the plate is still of use in evaluating the Sasanian *drahm*. The abbreviation "s" here seems to be developing toward its more cursive shape, and the next two examples also illustrate this trend.

9. mlt s-xx iii ii iiii sng Mard. 29 s[tēr] by weight (F. 10)

The bowl, adorned with animals, in the Musée d'Art et d'Histoire in Geneva, presents a difficulty. If the numerals are assumed to be correct as they stand, then the words W ZWZN, *ud drahm*, must have been omitted between "25" and "4." But a reading "25 *står* and 4 *drahm*" would give an unusually high value for the *drahm*: 4.36 g. It seems simpler and also more realistic (see table of weights) to assume that the latter numeral signs are miswritten for *iii iii*.

14. Sasanian Silver (Ann Arbor, 1967) no. 28.

15. In the papyri, clusters of the type s-n and d-y-n, basically — in form, may become —: *Papyri* 3, 7; 12, 8; and p. 80; A. Perikhanian, "Pekhlevyskie papirusy sobraniya GMII imeni A. S. Pushkina," *VDI* (1961) 3, pp. 78–93: no. 3, 7. Compare also the stylization of h-n and š-n: *Papyri* 12, 5; 28, 3. 10. kpcyn ZK ZY s-xx-x iii ZWZN iii Kabzēn. This [vessel] of 33 s[tēr] and 3 drahm (F. 11)

A plate in a private collection in New York, which displays a prince lassoing onagers, carries this inscription on its base.

The remaining examples of "s" + numeral are more cursive; but the presence of "s" seems assured. The resulting readings preserve a consistent relationship to the vessel weights. Moreover, the reading is supported by the common occurrence of this cursive ligature in the papyri.¹⁵ The contrast between the more angular and the more cursive "s" as an abbreviation may prove a genuine paleographic feature, useful for sorting out the silverware inscriptions. But it could equally be a mere stylistic difference. In any case, the remaining inscriptions may be clarified.

pylwc'n NPŠH s-xx-xl iiii sng Property of Pērōz. 64 s[tēr] by weight (s. 60, H. 6, L. 2, F. 4)

mtrbwcyt NPŠH s-xx-xl-x i W ZWZN iii sng

Property of Mihrbözēd. 71 s[tēr] and 3 drahm by weight

(H. 8, L. 8)

Inscriptions 11 and 12 are found on bowls in the Hermitage, each bowl decorated with a royal hunt scene.

13.

b'k PN s-xl-iii iii ZWZN i M iii Bāg. At 46 s[tēr], 1 drahm, 3 dāng (s. 80, H. 10, L. 5, F. 9)

The Hermitage vase bearing this inscription has a motif of maidens framed by arches. Since its base is broken, it provides no usable value for the *drahm*. The inscription reproduces a rapid cursive script. One stroke of the preposition PWN is skipped, as so often in the papyri. Apparently, one tooth of the "40" sign is also omitted, perhaps compensated for by the lengthening of the stroke. A reading of "20" would not yield a realistic *drahm*. The vessel presently weighs 611.9 g., and the suggested reading gives a *drahm* of 3.30 + g. If loss through breakage is about 15 per cent, this value would be satisfactory.¹⁶

wnd'tyn'n pty xx-xx-xl-x iii ii MCY M-iiii s-xx-xx-xl-x iiii iiii W ZWZN i W M-iii

Property of Windādēn. At 95 stēr, 4 dāng 98 s[tēr] and 1 drahm and 3 dāng

The unfigured, beveled ewer in the Cleveland Museum of Art is unusual in carrying two inscriptions, which are separated by a short space.¹⁷ The first begins after the owner's *tamga*; as in No. 2, the ideogram for *stēr* is used. The second inscription perhaps corrects the first or is a later weighing. 15.

- And have

M mltbwt¹ P s-xx-ii W ZWZN iii Of Mardbūd. At 22 s[tēr] and 3 drahm (F. 8)

The Cleveland Museum's ewer (no. 61.200) with the theme of the man-lion contest presents an interesting grammatical variation. MN, "from," is only seldom used to express attribution and hence, here, ownership.¹⁸

16. מיליא של האך לען על - יעל . bynhwš s-xx-x iiii iii ZWZN iii ... xwaš. 33 s[tēr], 3 drahm (F. 12)

The Freer Gallery's gilded bottle, depicting four nude female dancer-musicians, carries an uncertain proper name, but the weight is clear.¹⁹

17. s-x W ZWZN *iii* 10 s[tēr] and 3 drahm (F. 14)

A rather simplified form of the abbreviation may perhaps be read on the undecorated bowl in the Staatliche Museen, Museum für Islamische Kunst, in Berlin.

18. Nos. 15 and 18 are studied in Dorothy G. Shepherd, "Sasanian Art in Cleveland," *Bulletin of the Cleveland Museum of Art* 51 (1964) pp. 66–92 with an addendum by Frye, pp. 92–93. This use of MN may be due to a syntactic analogy with the particle of attribution, ZY. Or it may reflect eastern Iranian influence. In Sogdian silverware inscriptions, the preposition cn seems common, e.g., S. 71, L. 19: ZNHZY pt γ 'd cn prd'rc γ ypd, "This vessel [is] the property of Fradārč."

19. Esin Atil, Exhibition of 2500 Years of Persian Art (Washington, D.C., 1971) no. 49.

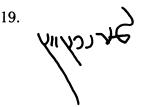
^{16.} Nos. 8, 11-13 = Persia II, nos. 141, 140, 142, 183. No. 13 also bears the proper name mork' in Sogdian (S. 80/L. 22).

^{17.} No. 66.21, illustrated in Frye, "Sasanian Silver and History," pl. 1-3. F. 13 = 14. (b).

Apart from this ambiguous case, there are twelve reasonably clear examples of the ster being cited as a weight measure (Nos. 1-2, 5-16). On five, and possibly six, other silver vessels, weights are recorded in ster without specifying that unit. It was evidently clear from context that the ster was intended.

gwk'k¹ xx-x ii W ZZN i Gugāy. 32 [stēr] and 1 drahm (**F**. 7)

In the Cleveland Museum (no. 62.150), the plate shows a royal lion hunt.



lmyk xx x ii ZWZN ii Ramīg. 32 [stēr], 2 drahm (s. 58, l. 10)

The Hermitage bowl with this inscription illustrates a royal lion hunt.

20.

Gyān Xusrau, son of Kabag, kay. By weight, 13 [ster], 2 drahm

(**F**. 16)

The drinking bowl in the C. L. David collection is exuberantly adorned with vines wreathing various animals and a cheerful drinker at center bottom. Its script is rather abrupt and difficult.20



FIGURE 3 Silver plate. King killing zebu. Collection of Mrs. Leopold Blumka

21.

xx-x30 [ster] (FIGURE 3)

By contrast with the C. L. David bowl, the clear inscription on a plate in the Blumka collection, showing a king in combat with a bull zebu, indicates a rather light drahm.21

يدرسرسر 22. s-xl-x iiii iiii 58 [ster] (s. 35, l. 9)

21. K. Erdmann, "Eine unbekannte sasanidische Jagdschale," Jahrbuch der Preuss. Kunstsammlungen (1938) p. 209 ff.

^{20.} Davids fond og samling IV (Copenhagen, 1970) no. 1. The sign here read as "10" resembles the initial sign of the Sissian bowl inscription.

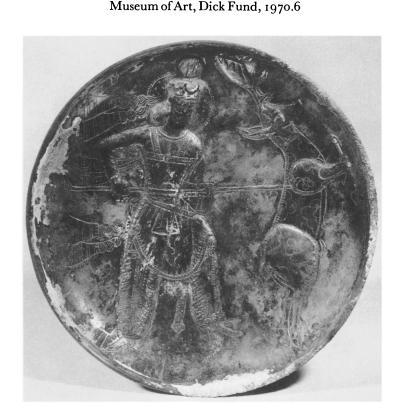
The elaborate scene of a reclining banqueter and an overhanging grapevine strikingly distinguishes this British Museum bowl. In its brief inscription, the first sign is ambiguous. If it is read as "20," giving 78 stēr, then the standard indicated would be the reformed Muslim dirham—2.91+g. (The bowl presently weighs 907 g. but has lost some portions.) It is doubtful that the bowl could be so late. Moreover, the xx-xl ligature in the post-reform inscription No. 35 is the same as in Nos. 8 and 12. The "20" stroke attaches to the bottom of the "40" stroke, not near the top. The alternative explanation is that the first stroke here is not anomalous but, as was suggested for No. 17, represents a simplified "s." The weight standard would thus be a good Sasanian one, 3.91+g. per drahm.

23.

[...]n [.....ZW](ZN?) *i* W [M?] *iiii* ..., son of ...; ... 1 *drahm* and 4 *dāng* (FIGURE 4)

One of the Metropolitan Museum's two inscribed plates with royal hunts (the other is No. 26) depicts a

FIGURE 4 Silver plate, mercury gilded. King Yazdgarid I (399-421) spearing a stag. The Metropolitan



king slaying a deer with his lance. The inscription around the foot of the plate was extensive; it is now worn so smooth that no useful facsimile can be made. But careful inspection reveals traces of a few signs; and these imply that the weight was recorded in *ster*, *drahm*, and *dang*.

Thus, in Group B, Nos. 5-23 compare with Nos. 1-2in Group A by their use of the *ster* unit. But four other silverware inscriptions may be compared with Nos. 3-4, since they record only the total of *drahm*. All four, unfortunately, involve ambiguities.

שישי שיאי איז איז איז יישין יישיאי איז איז איז עושין קרשיד 24.

- ZNH M'NH pwl ZY whm'n¹ plmwt¹ krtn¹ iii-c ii dlmsng
- (s. 61, h. 5, l. 3,²² f. 2)
- This vessel was ordered to be made by Por, son of Wahman. 302 drahm by weight

سە دىكەر سام 25.

ii-c [?] xx xl x *iii ii* ZWZN sng 275 drahm by weight
(s. 62, L. 4)

Nos. 24 and 25 occur on bowls carrying royal hunt scenes. No. 24 is somewhat broken, so its weight does not help to evaluate the *drahm*. The weight of No. 25 is unrecorded; the form of the initial sign group in its inscription is unusual.

עלד זיש ניםו 26.

ii c ii ZW sng p/c n 202 *drahm* by weight (FIGURE 5)

22. Also Persia II no. 137.



FIGURE 5 Silver plate, mercury gilded. King hunting mountain sheep. The Metropolitan Museum of Art, Bequest of Cora Timken Burnett, 57.51.19

Another plate in the Metropolitan Museum, extensively reworked and repaired, with a motif of a king hunting sheep. The interpretation of the latter part of its inscription remains problematical.

Minde rales 3 27.

zyl..l. 'n *i-c*..*ii iii*Property of Z. [or Z., son of ...] . one hundred ...-five [drahm]

This, the most crudely incised of the inscriptions, occurs on a silver figure of a kneeling goat.²³ Unlike Nos. 24–26, it omits the term *sang*, "by weight."

The weight inscriptions of Group B can be distin-

23. Sasanian Silver no. 28.

guished from those of Group C by the fact that the latter use as their standard the reformed Muslim *dirham* of about 2.9 g. It is less easy to classify inscriptions that carry only a name formula. For convenience, they are here placed together in Group B.

spndrmt y'tkgwb¹ NPŠH Property of Spandarmad the advocate (s. 52, H. 3, L. 12)

d'tbwlcmtr[|] <u>ZY</u> plḥw'n'n <u>ZY</u> gylsl'n ḥwl's'n sp'ḥpt[|] NPŠH

Property of Dādburzmihr, commander of the East, son of Farroxān, the son of Gēlsar [?]

(s. 48, h. 4, l. 11)

At least these two inscriptions on Hermitage bowls can reasonably be assigned to Group B, since they contain Sasanian titles. The second patronymic of No. 29 could be read in several different ways, but not as Livshits and Lukonin's *hwslwbn*. One need only compare Nos. 30 and 37.

30.

ḥwslwb Xusrau (s. 90, н. 2, г. 14)

MININ 31.

'nwšz'd Anōšzād (s. 66, н. 1, г. 13)

Both of these examples could easily be either Sasanian or post-Sasanian in date.



32. תפיט אור על ייר וטיץ

wstlcyn¹ <u>ZY</u> 'lt'knp'n Wastarčīn, son of Ardānaf (FIGURE 6)

33.

brsyn'n Belonging to Barsēn (FIGURE 7) FIGURE 6

Silver ewer, mercury gilded. The Metropolitan Museum of Art, Mr. & Mrs. C. Douglas Dillon Gift and Rogers Fund, 67.10a, b



FIGURE 7 Silver wine bowl, mercury gilded. The Metropolitan Museum of Art, Gift of Mrs. Constantine Sidamon-Eristoff, Purchase 1970.7

The final examples are found on objects in the Metropolitan Museum. Inscription No. 32 occurs on a ewer and is similar in style to No. 26.²⁴ Most probably, it belongs to Group B. No. 33, placed on the bottom of a drinking bowl, seems to have been executed hastily, somewhat distorting the orthography.²⁵

GROUP C (700 AND AFTER)

At least four Middle Persian silverware inscriptions postdate Caliph 'Abd al-Malik's reform of the weight standard (694-696).

24. The Metropolitan Museum of Art Bulletin 26 (1967–68) p. 52. 25. The Metropolitan Museum of Art Bulletin 29 (1970–71) p. 63.

-) زرسا به ۲۵۵ مر (سیار پر 34.) در اسان به ۲۵۰ م. میدار میر از میر د.
- wnd't 'whrmzd ZY k'ln'n NPŠH MN iii-c iii iii ZWZN sng

Property of Windād Ohrmazd of the Karēns. Of 306 drahm by weight

- 35. ארשישי אאשר שאיין יא יא אישיין 35. אי ערל פרק ברע וו עו
- wnd't 'whrmzd ZY-k'ln' 'n NPŠH MN *ii-c xx-xl x ii ii* ZWZN sng
- Property of Windād Ohrmazd of the Karēns. Of 274 drahm by weight

- 'clmyk ZY štlwyn'n NPŠH ZY MN ü-c ü-ZWZN M iii-ZY PN sng
- Property of Azarmīg, son of Šahrwēn, which [is] of 202 drahm, 3 dāng by weight

The inscriptions on the three bowls found in Māzanderān, now in the Tehran Museum, were analyzed by W. B. Henning.²⁶ Like Nos. 24, 25, and probably 26, they indicate their weight in *drahm* only.



bwlcynwlc ZY hwslwbn NPŠH MN xl-x iii iii iii sng

Property of Burzēnwarz, son of Xusrau. From 59 [sitēr] by weight

(s. 88, L. 7,²⁷ F. I)

27. Also Persia II no. 194.

This final example is inscribed on a Hermitage vase depicting an eagle attacking a gazelle. No unit is mentioned, but the number "by weight" is clearly written. It is far too low to represent either the reformed *dirham* or the Sasanian *drahm*. It is definitely too high to be in Sasanian *stēr*, but it would well suit a value in *sitēr* based on the reformed *dirham*. Hence it seems unlikely that the multiple unit immediately went out of use after the reform.²⁸ Nos. 21–22 provide the most comparable type of weight formula from the Sasanian period. As one would expect, the *sitēr* here represented is somewhat light:

	weight	weight in			g. per
vessel	in g.	sitēr		= <u>dirham</u>	dirham
35.	7 95		274	274	2.90
34.	88 0		306	306	2.88
36.	544+		202.5	202.5	2.69+
37.	634	59		236	2.69

The total evidence of the silverware shows that it was convenient to indicate large numbers of drahm by use of the multiple unit, the ster. The Iqlid inscription implies that this held true for expressing monetary value as well as weight. But a remaining problem is the value of the Sasanian drahm standard, as it functioned as a unit of weight and of coinage. On the basis of coin evidence, the *drahm* is customarily cited as averaging about 4 g. The drahm coin does tend to fall below this amount. A. Mordtmann's mean value, from a sample of 2,000 coins over the entire Sasanian period, was 3.91 g.29 A selection of 298 drahm coins in the collection of the American Numismatic Society in New York provides, for the period from Ardašīr I to Yazdagird II (224-457 A.D.), a mean of 3.88 g.; the averages per reign vary from 4.12 (Šāpūr I) to 3.72 (in a very small sample of Ardašīr II). In the sixth and seventh centuries, the coin is often still lighter. The 92 whole coins of Xusrau I in the Iraq Museum have a mean of 3.48.30 But the Arab-Sasanian coinage of the Umayyad cali-

28. See Frye's suggestion that it did, "Sasanian numbers," p. 6.

29. Cited in John Walker, A Catalogue of the Muhammadan Coins in the British Museum, I Arab-Sassanian Coins (Oxford, 1941) p. cxlvii. It is, of course, necessary to allow slightly more to the average drahm to compensate for average wear on the coins.

30. S. N. Nakshabandi and F. Rashid, "Sassanian Dirhams in the Iraq Museum," *Sumer* 11 (1955) pp. 154-176 provides the catalog on which this average is based.

^{26. &}quot;New Pahlavi Inscriptions"; the bowls were published in Roman Ghirshman, "Argenterie d'un seigneur sassanide," Ars Orientalis 2 (1957) pp. 77–82.

phate is heavier; J. Walker's 292 whole coins of this period average 3.95 g. This last evidence suggests that an attempt was made to remedy the inflation indicated by the progressive lightening of Sasanian coinage. By implication, the coinage was brought back into harmony with a stable, enduring *drahm* weight standard, although, of necessity, the coin weight remained a little below the standard.

The silverware inscriptions should exemplify this stable weight standard, free from the deviations and tendency toward depreciation inherent in the coinage. Of course, the problems of wear and the addition or loss of metal still render the results an approximation. Six reliable examples specify that the measure is "by weight" (sang):

	weight	weight in			g. per
vessel	in g.	stēr	drahm =	drahm	drahm
24.	1265.5+		302	302	4.19+
8.	1070.7+	73	2	294	+4.10
11.	1039.2	64		256	4.06
12.	1155.6	71	3	287	4.02
9.	454	29		116	3.91
26.	770.3		202	202	3.81

The mean value for the weight-drahm thus obtained is 4.02+ g. The larger sample of inscriptions without the term sang shows a comparable range, particularly if the two extreme examples are omitted. Hence the absence of that term need not imply that a different standard drahm is being used:

	weight	weig	ght in		g. per
vessel	in g.	stēr	drahm =	= drahm	drahm
20.	235	13	2	54	4 ·35
18.	546	32	I	129	4.23
4.	1225.7		296	296	4.14
19.	532.8	32	2	130	4.10
2.	650	39	I	159	4.08
14.(b)	1589	98	1.5	393.5	4.04
16.	610	37	3	151	4.04
1.	850	53	I	213	3.99
15.	363.5	22	3	91	3.99
5.	551.7+	34	3	139	3.97 +
3.	350		87	87	3.97
6.	860.7	55		220	3.94
7.	725.5	46		184	3.94

	weight	weight in			g. per
vessel	in g.	stēr	drahm =	arahm	drahm
17.	170	10	3	43	3.94
22.	907+	58		232	3.91+
10.	514	33	3	135	3.81
21.	432	3 0		120	3.60

The mean of this group is 4.00+ g. This seems significantly above the coin-*drahm* average, although the range of values for the *drahm* in the silverware is somewhat similar to the range in the coinage. If the twentythree examples tabulated above are considered together, as seems appropriate, the mean value of the *drahm* weight is 4.01+ g, the median 3.99 g.

Sogdian silverware inscriptions provide important comparative evidence. Their patterns agree closely with those of the Middle Persian inscriptions; even the abbreviation "s" is used for $st\bar{e}r/st\bar{e}rak$. One is thus encouraged to look for a parallel weight standard of 4+ g. Five fairly clear inscriptions³¹ provide only a small sample, and their range of values for the $\delta raxme$ is considerable. Nevertheless, their mean value of 4.21g. per $\delta raxme$ supports the idea of a stable Sasanian drahm weight that remained higher than the trend of coin weights. The Sogdian weights are:

a. (S. 71, L. 19) b. (L. 23, <i>Persia</i> 147)	xx xx xx ðrγm'k xx x iii iiii styr	"60 δraxme" "37 stēr"
c. (L. 18, <i>Persia</i> 148)	<i>iii iii iii xx x</i> styrk	"39 stērak"
d. (L. 25)	'yw knpy 'YKZY	"one
	<i>xx</i> s n'krtk	[ðraxme]
		less than
		20 s[tēr]
		of silver"
e. (L. 24, Persia 37)	iii xl x	''53 [stēr]''

	weight	weight in		g. per	
vessel	in g.	stēr	δraxme ==	δraxme	δraxme
a.	282		60	60	4.70
b.	644.5	37		148	4∙3 3
c.	636+	39		156	+4.28
d.	313.5	19	3	79	3· 97
e.	800.9	53		212	3.77

31. The interpretation of the two inscriptions that contain sang (L. 16, Persia 184; L. 17) remains to be re-evaluated.

An important complement to these five is the inscription on a drinking bowl in the collection of Mohsen Foroughi in Tehran, which shows a king hunting an onager.³² Judged by its script, it was meant to be read in Sogdian or perhaps Parthian:

ZNH mtwrwn MN ZWZYN i c iii ii

This drinking-vessel [is] of 105 drahm

The bowl's weight is 430 g. Thus the value for the *drahm* is here 4.09 g., which is closer to the Sasanian average but, significantly, still above it.

ADDITIONAL NOTE

A weight-denār for the measurement of gold would have been somewhat under 4.5 g., in close accord with the later denār coin. (On the latter, see R. Göbl, Sasanidische Numismatik [Braunschweig, 1968] pp. 28-29.) It would have represented the late Roman solidus unit, theoretically 4.55 g., and influenced the Arabs' prereform weight-mithqāl. (See W. Hinz, Islamische Masse und Gewichte [Leiden, 1955] pp. 3-4; G. C. Miles, "Dinar," Encyclopaedia of Islam, new edition II [Leiden, 1965] pp. 297-299.) Such a weight-denār may be represented on the golden bowl from the time of Xusrau I in the Bibliothèque Nationale (E. Babélon, Catalogue des Camées antiques et modernes de la Bibliothèque Nationale [Paris, 1897] pp. 213-219; R. Ghirshman, Iran, Parthians and Sassanians [London, 1972] p. 205). The brief inscription may be read:

iii-c iiii iii PN s 307 (*dēnār*) by weight.

Since the vessel is adorned with glass and crystal medallions, the value of the metallic unit is not determined. The entire bowl weighs 2,110 g. I am grateful to Dr. Raoul Curiel for supplying the actual weight of this vessel.

32. Henning and Azarpay, "A Hunting Scene." See note 2.