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List of Abbreviations

GENERAL

A.D.	anno domini
B.C.	before Christ
ca.	<i>circa</i> , approximately
cat. no.	catalog no.
cf.	<i>confer</i> , compare
ch(s).	chapter(s)
cm	centimeter(s)
col(s).	column(s)
coll.	collation
DN	diety name
ed(s).	editor(s)
et al.	<i>et alii</i> , and others
e.g.	<i>exempli gratia</i> , for example
esp.	especially
etc.	<i>et cetera</i> , and so forth
fasc.	fascicle
fig(s).	figure(s)
f(f).	and following
FN	family name
GN	geographical name
ha	hectare(s)
ibid.	<i>ibidem</i> , in the same place
i.e.	<i>id est</i> , that is
km	kilometer(s)
lit.	literally
lo.ed.	lower edge
m	meter(s)
n(n).	note(s)
no(s).	number(s)
n.p.	no publisher
NN	personal name
no(s).	number(s)
obv.	obverse
p(p).	page(s)
pers. comm.	personal communication
pl.	plural
pl(s).	plate(s)
PN	personal name
rev.	reverse
RN	royal name
sg.	singular
trans.	translation
u.ed.	upper edge
var.	variation
vol(s).	volume(s)

Persepolis Fortification Aramaic Tablet Seal 0002 and the Keeping of Horses

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This article serves as our first exploration of ways to discuss the Aramaic tablets of the Persepolis Fortification Archive. We have isolated a single seal that appears on the Aramaic tablets but, as far as we are aware, not elsewhere in the archive (PFATs 0002). We have found a strong thematic connection between the texts on the tablets sealed with this seal, including the type and amount of material being disbursed and the personnel involved. In addition, the tablets exhibit marked similarity in their shapes, and two of the texts were written in the same hand.¹

Approximately 700 tablets of the Persepolis Fortification Archive were written in Aramaic.² Raymond A. Bowman at his death left a typescript with draft editions of tablets 1–492.³ We are currently in the process of analyzing the texts (Azzoni) and seal impressions (Dusinberre) for online and paper publication.⁴ Exact description and classification of the Persepolis Fortification Aramaic Tablets (PFAT) by shape remains to be done. The great majority are roughly triangular, subtriangular, or pyramidal, formed around knotted strings that emerged from the corners of the flattened short edge of the triangle. With respect to shape, the PFAT corpus resembles the “memorandum” type Elamite tablets with texts of Categories A–S, and the uninscribed tablets, but not the Elamite tablets with texts of Categories V and W, which reflect other phases in the administrative process.⁵ As will become clear, however, the substance of the Aramaic texts does not follow the categories described for the Elamite tablets.

The right-to-left orientation of the Aramaic texts on the tablets differs from the orientation of cuneiform texts, as the respective writing directions of the scripts would lead one to expect.⁶ On most of the Aramaic tablets, the script runs from the flat edge to the rounded tip; on some it runs parallel to the flat edge; on very few it runs from tip to flat edge. In order to avoid the problems raised by the use of the terms “left” and “right” in connecting this and the Elamite corpus, we have therefore identified the surfaces of the tablet as shown in figure 1.1, regardless of the orientation of the text.

Because the PFAT corpus seems not to follow the same format as the Elamite corpus, we are searching for meaningful approaches to subsidiary grouping of Aramaic tablets within the categories first laid out by Richard T. Hallock. The differences between the Elamite and Aramaic corpora of the Fortification Archive are perhaps most immediately evident in the length of the texts on the tablets: the Aramaic texts are significantly more terse than the Elamite ones. Some of them, indeed, just name a year with no further information offered.⁷ Other tablets laconically record a single word (e.g., “seed”).⁸ The differences are highlighted by the small percentages of seals represented by their impressions

* It is an honor and a privilege for us to contribute this article to Matthew W. Stolper’s *Festschrift*. It also feels to us like a singularly appropriate venue for our first collaborative publication on the Persepolis Fortification Aramaic Tablets. This is not only true because we are both working on this corpus thanks solely to Matt’s invitation, but this joint work grows out of the collaborative endeavor Matt is overseeing. It is a pleasure for us to offer our first publication together to this *Festschrift* that honors the career of one of our time’s most learned, forward-thinking colleagues.

¹ PFAT 0047 and PFAT 0050.

² See Charles E. Jones and Matthew W. Stolper, “How Many Persepolis Fortification Tablets Are There?,” in *L’archive des Fortifications de Persépolis: état des questions et perspectives de recherches*, Persika 12, edited by Pierre Briant, Wouter F. M. Henkelman, and Matthew W. Stolper (Paris: Éditions de Boccard, 2008), pp. 27–50; Annalisa Azzoni, “The Bowman Manuscript and the Aramaic Tablets,” *ibid.*, pp. 253–74.

³ Raymond A. Bowman, *Persepolis Aramaic Tablets* (unpublished manuscript, n.d.).

⁴ The Aramaic texts on the tablets were written in ink, incised, or both (Azzoni, “The Bowman Manuscript”). The group of tablets studied initially by Bowman comprises the corpus analyzed by us and described here as PFAT. See also Azzoni, “The Bowman Manuscript,” and Elspeth R. M. Dusinberre, “Seal Impressions on the Persepolis Fortification Aramaic Tablets: Preliminary Observations,” in *L’archive des Fortifications de Persépolis: état des questions et perspectives de recherches*, Persika 12, edited by Pierre Briant, Wouter F. M. Henkelman and Matthew W. Stolper (Paris: Éditions de Boccard, 2008), pp. 239–52.

⁵ This follows the text-based categories defined in Richard T. Hallock, *Persepolis Fortification Tablets*, Oriental Institute Publications 92 (Chicago: The Oriental Institute, 1969), pp. 13–69.

⁶ This description is drawn from Dusinberre, “Seal Impressions.”

⁷ E.g., PFAT 0007.

⁸ E.g., PFAT 0385.

on the PFAT corpus that also appear impressed on the PFT corpus.⁹ It is our guess that the functions of the Aramaic tablets within the Persepolis Fortification Archive were rather different than those of the Elamite tablets, but the corpora are clearly linked to each other as well, in various intricate ways.

PFATS 0002 and the Keeping of Equids

This paper begins with one seal, PFATS 0002, which to our knowledge appears only on the PFAT corpus, and traces it and its connections across the archive (fig. 1.2). All tablets presently known to bear impressions of this seal are included in the discussion.¹⁰ The Aramaic texts on these tablets are listed in table 1.1 below. Also included are drawings of this seal and the five other seals with which it is found collocated (figs. 1.4–20); none of these seals is known from other parts of the archive, except for PFS 2150. A synopsis of the impressions of PFATS 0002 and the seals collocated with it is given in table 1.2. We wish to be clear that the remarks and interpretations offered here are preliminary, and our ongoing work on texts and seals will certainly add to the initial assessment presented here.

PFATS 0002 was used by a person or people responsible for disbursing feed to horses and donkeys. The repeated occurrence of two animals together is intriguing and may suggest they were yoked. Were they draft animals that pulled heavy carts or even drew ploughs behind them? Were they swift drawers of chariots? Or were they mounts? The Aramaic texts inform us that these animals were being fed a high-energy diet: the sort of thing one would never risk on a horse that had to remain docile, placid, and predictable, but just the sort of feed that would be given to the fiery and fleet.

Table 1.1. Texts on tablets sealed with PFATS 0002

Tablet No.	Translation
PFAT 0013	“[Two illegible lines] in year 20 for the months of Nisan, Iyyar, and Siwan”
PFAT 0025	“Sealed document. 4 donkeys in the month of Elul, 4 (rations of?) bread. <i>Smr dwk</i> in year 22”
PFAT 0028	“In year 22 he took for (the month of?) Adar(?)”
PFAT 0033	“In year 22 he took rations of grain for <i>Mtrn</i> ’(?) [...] 2 <i>grîwa</i> ”
PFAT 0047	“In year 23, in the month of Elul, <i>Zbwš</i> took grain for 2 horses”
PFAT 0050	“In year 23, in the month of Kislev, <i>Zbwš</i> took rations for 2 horses”
PFAT 0058	“In year 23 for the month of Adar 1 he took rations for 2 horses, 15 <i>g(rîwa)</i> of grain”
PFAT 0075	“In year 23, for the month... <i>Štyš</i> took... for donkey(s?)... 2”
PFAT 0081	“In year 23, for 2 horses, rations...”
PFAT 0102	“In year 24, rations for <i>Wnyš</i> , for the year. For harvested crops, concerning the year 24.”
PFAT 0220	“Rations (of grain?) in the presence / before W...”
PFAT 0495	“(In year) 26 <i>Gbh</i> grain...”

⁹ The twenty-three seals known from the Elamite corpus and also found on the Aramaic tablets that have been identified to this date are: PFS 0017, PFS 0034, PFS 0048, PFS 0070s, PFS 0075, PFS 0078, PFS 0095, PFS 0124*, PFS 0142, PFS 0192s, PFS 0213, PFS 0247, PFS 0319, PFS 0518, PFS 0578s, PFS 0581s, PFS 0971, PFS 1090, PFS 1098, PFS 1312s, PFS 1595, PFS 1624s, PFS 2150. At this point, over 430 new seals have been identified by Dusinberre on the PFAT corpus, otherwise unknown from the PFT corpus published by Richard T. Hallock or the sample of uninscribed tablets studied by Mark B. Garrison (the PFUT corpus; see Mark B. Garrison, “The Uninscribed Tablets from the Fortification Archive: A Preliminary Analysis,” in *L’archive des Fortifications de Persépolis: état des questions et perspectives de recherches*, Persika 12, edited by Pierre Briant, Wouter F. M. Henkelman and Matthew W. Stolper (Paris: Éditions de Boccard, 2008), pp. 149–238). The study of the seals presented here is only possible because of Mark Garrison and Margaret Root’s pioneering work on Achaemenid seal impressions. They have produced a steady flow of publications on the roughly 1,156 legibly distinct seals, the PFS corpus, that ratify the 2,087 Elamite tablets first published by Hallock (*Fortification Tablets*) since the appearance in 1988 of Root’s first major article on the corpus and Garrison’s Ph.D. dissertation (Margaret Cool Root, “Evidence from Persepolis for the Dating of Persian

and Archaic Greek Coinage,” *Numismatic Chronicle* 148 [1988]: 1–12; Mark B. Garrison, “Seal Workshops and Artists in Persepolis: A Study of Seal Impressions Preserving the Theme of Heroic Encounter on the Persepolis Fortification and Treasury Tablets” [Ph.D. diss., University of Michigan, 1988]). Those opening statements have been followed by a stream of important articles touching on a wide range of subjects related to the Persepolis Fortification seals, Achaemenid art and society, and glyptic studies, culminating in their first monograph on the PFS corpus (Mark B. Garrison and Margaret Cool Root, *Persepolis Seal Studies: An Introduction with Provisional Concordances of Seal Numbers and Associated Documents on Fortification Tablets 1–2087*, Achaemenid History 9 [Leiden: Nederlands Instituut voor het Nabije Oosten, 1996, rev. ed. 1998]) and the first part of a three-volume catalog (Mark B. Garrison and Margaret Cool Root, *Seals on the Persepolis Fortification Tablets*, Vol. 1: *Images of Heroic Encounter*, Oriental Institute Publications 117 [Chicago: The Oriental Institute, 2001]), which also contains a full bibliography.

¹⁰ The images presented here are taken by Dusinberre and will soon be available online through InscriptiFact of the University of Southern California (www.inscriptifact.com) and the Online Cultural Heritage Resource Environment (OCHRE) run by the University of Chicago (ochre.lib.uchicago.edu).

Table 1.2. Impressions of PFATS 0002 and the seals collocated with it [NS = no seal / not sealed ???]

Tablet No.	Obverse	Upper Edge	Reverse	Bottom Edge	Flat Edge	Round Edge	Box No.
PFAT 0013	NS	PFS 2150	PFATS 0002	NS	PFATS 0002	NS	2155
PFAT 0025	NS	NS	PFATS 0002	NS	NS	NS	2153
PFAT 0028	NS	NS	PFATS 0002	NS	NS	NS	2153
PFAT 0033	PFATS 0002	NS	NS	NS	NS	NS	1095
PFAT 0047	PFATS 0002	NS	PFATS 0111	NS	PFATS 0111	NS	1080
PFAT 0050	PFATS 0011	NS	PFATS 0002	NS	PFATS 0011	NS	2137
PFAT 0058	PFATS 0119	NS	PFATS 0002	NS	NS	NS	0376
PFAT 0075	NS	Destroyed	PFATS 0002	NS	NS	NS	0650
PFAT 0081	PFATS 0002	NS	PFATS 0011	NS	NS	NS	2154
PFAT 0102	NS	NS	PFATS 0002	NS	PFATS 0142	NS	0686?
PFAT 0220	NS	NS	PFATS 0002	NS	Destroyed	NS	0941?
PFAT 0495	NS	NS	PFATS 0002	NS	(illegible seal)	NS	(unknown)

Disbursements of Grain

The twelve tablets listed in tables 1.1–2 above clearly record disbursements of feed, usually specifically grain, to equids – usually horses, twice donkeys. The animals always occur in multiples of two. The time frame covers six years (502–496 B.C.), and the rations are disbursed throughout the year, commonly between March (Adar) and September (Elul), but at least once in November/December (Kislev) as well.¹¹ When the nature of the rations disbursed is mentioned, it is grain rather than hay, usually provided in the form of simple grain but at least once as bread.¹² Modern English expressions such as “feeling his oats” or “full of beans” should serve us as reminders of a past when the feed given to horses had a profound influence on the energy levels and docility one might expect from these equine companions and servants.

Based on the nature of the feed, therefore, as well as the numbers and types of animals to which it was rationed, and the varied names and handwritings that appear on the tablets, we think the function of PFATS 0002 may be stated with some confidence. It was that of an office responsible for disbursing grain supplements to high-quality and mettlesome steeds.

The inclusion of donkeys here should not be surprising, not only because of the clear modern comparisons that show the potentially prized nature of these animals but also from their inclusion on the Apadana reliefs at Persepolis.¹³ On these reliefs, chariot horses are legion among the gifts brought to the king, but no simple draft equids yoked to plough or cart. Thus the fact that a donkey is brought by the Indian delegation as a gift to the king underscores the nature of donkeys as valued animals.¹⁴

¹¹ The Aramaic tablets use the Akkadian (Babylonian) calendar, which is to be expected in imperial or official Aramaic documents from the Achaemenid period. See Wouter F. M. Henkelman, *The Other Gods Who Are: Studies in Elamite-Iranian Acculturation Based on the Persepolis Fortification Texts*, Achaemenid History 14 (Leiden: Nederlands Instituut voor het Nabije Oosten, 2008), p. 75.

¹² Bread appears as a feed for equids in the Elamite tablets of the PFA, as well as here; see Marcel Gabrielli, *Le cheval dans l'empire achéménide* (Istanbul: Ege Yayınları, 2006), p. 43. Medieval “horsebread” might be made using beans or peas as well as coarse-ground grain. Thus answers.yahoo.com quotes the Gervase Markham Country Contentments of 1615 as providing a recipe: “Take two bushels of good clean beans and one bushel of wheat, and grind them together. Then, through a fine [sieve], bolt out the quantity of two pecks of pure meal, and bake it in two or three loaves by itself. The rest sift through a meal sieve and knead it with water and good store of barme [yeast]. And so, bake it in bread loaves and with the coarser bread feed your horse in his rest.”

¹³ This is clear from the delegation of Indians on the East staircase, which includes a long-eared donkey among its gifts. For the nature of the offerings as gifts rather than tribute, see Heleen

Sancisi-Weerdenburg, “Baji,” in *Studies in Persian History: Essays in Memory of David M. Lewis*, edited by Maria Brosius and Amélie Kuhrt, Achaemenid History 11 (Leiden: Nederlands Instituut voor het Nabije Oosten, 1988), pp. 23–34.

¹⁴ In this regard, the Persian evidence suggests a different attitude toward donkeys than that of Greeks. For the value placed on horses in Greek visual and textual evidence, and the lesser worth of donkeys, see M. Griffith, “Horsepower and Donkeywork: Equids and the Ancient Greek Imagination,” *Classical Philology* 101/3 (2006): 185–246; and idem, “Horsepower and Donkeywork: Equids and the Ancient Greek Imagination. Part Two,” *Classical Philology* 101/4 (2006): 307–58. For the wild donkeys on the Neo-Elamite heirloom seal PFS 0051, see Mark B. Garrison, “Seals and the Elite at Persepolis: Some Observations on Early Achaemenid Persian Art,” *Ars Orientalis* 21 (1991): 1–29, esp. pp. 3–7; idem, “The Seal of ‘Kuraš the Anzanite, Son of Sespes’ (Teispes), PFS 93*: Susa – Anšan – Persepolis,” in *Elam and Persia*, edited by Javier Álvarez-Mon and Mark B. Garrison (Winona Lake: Eisenbrauns, 2011), pp. 375–405. For the significance of horses in Athenian self-image, see J. K. Anderson, *Ancient Greek Horsemanship* (Berkeley: University of California Press, 1961), p. 132.

As one author has put it, “Horses’ historical agency lies in the substance of their existence, the physical power they produced, and the role of that power in shaping material and social arrangements.”¹⁵ Although the PFAT corpus does not as yet provide additional information about the power of equids at Persepolis or the role they played in shaping social arrangements, it does give us real insight into the keeping of horses and donkeys and some of the ways they may have been used. The information included on the Aramaic tablets is, as usual, much more briefly stated than that on the Elamite tablets of the Fortification Archive, but the tablets sealed by PFATS 0002 contribute to our understanding of equids, their uses, their feed schedules, and their care. The people to whom the grain is disbursed regularly fed a pair of horses or donkeys. It is possible that they were feeding their own mount and backup steed, or the riding steeds of someone else.¹⁶ The pair of animals, may, however, have been a team that worked together to pull a vehicle behind them.

Most of the tablets associated with PFATS 0002 do not specify the amount of grain given or the number of days the ration was disbursed, nor do they give an indication how long the ration of grain was supposed to last. This terseness may serve as another indication that the Aramaic tablets did not function as full archival records but rather were used in tandem with Elamite (or other?) documentation. Those tablets that do indicate amounts and duration of grain rations, however, are valuable. The quantities of grain issued by the holder of PFATS 0002 demonstrate that these animals, like those described on the Elamite tablets, must have eaten a combination of grass or hay and grain.¹⁷ This is normal for modern horses that eat grain supplements as well as horses whose feed is recorded in the Elamite corpus of the PFA.¹⁸ Indeed, Wouter Henkelman has demonstrated that the Elamite tablets clearly specify those rations of grain that are fed to animals otherwise supported by forage or otherwise turned out to pasture.¹⁹

The quantities of grain mentioned in the tablets sealed by PFATS 0002 are so small that they must have served as supplements rather than the basis of nutrition — this is clear, for instance, on PFAT 0058. Indeed, the amount of grain described on PFAT 0058 translates to a very small daily ration, perhaps a quarter-cup. The amount described thus may represent only a small portion of an animal’s overall intake, or it may indicate a particular high-calorie, high-nutrient grain, such as flax seed, that is given as a daily supplement in small quantities. Marcel Gabrielli has pointed out that some horses would have been fattened for consumption; the small quantities of grain listed here are not sufficient to put real weight on a horse but only to maintain the daily energy levels of a horse that is being worked.²⁰ Such supplements are important for animals that are working particularly hard, as they provide necessary energy and vitality. Certain high-fat grains, such as flax, also promote shiny coats, full manes and tails, glossy eyes, and healthy feet; they have an impact on both the performance and the appearance of the steed.²¹ Only small quantities of such rich feed can be offered horses. The animals are surprisingly delicate creatures, and if overfed or fed wrongly they quickly succumb to stomach or foot disorders (e.g., colic or laminitis) — for a horse, such diseases can be fatal.²² The amounts suggested by the tablets sealed by PFATS 0002 therefore are what one would expect to find of a high-fat grain like flax, offered as a feed supplement to a horse or donkey engaged in regular demanding work.²³

¹⁵ Ann Norton Greene, *Horses at Work: Harnessing Power in Industrial America* (Cambridge: Harvard University Press, 2008), p. xi.

¹⁶ Christopher Tuplin has recently reiterated that the term “horseman” in the Fortification Archive need not mean an equestrian but rather may well refer to a groom or other person responsible for tending horses. See Christopher Tuplin, “All the King’s Horses: In Search of Achaemenid Cavalry,” in *New Perspectives on Ancient Warfare*, edited by Garrett G. Fagan and Matthew Trundle, *History of Warfare* 59 (Leiden: Brill, 2010), pp. 101–82.

¹⁷ Gabrielli, *Le cheval*, p. 61.

¹⁸ Modern horses eat between 1.5 and 3 percent of their body weight daily, of which 75 percent or more needs to be forage — this equals roughly 9,000 pounds of hay per year for a 1,000-lb. horse. For the proteins and fats in grain fed to horses, see, e.g., the Committee on Nutrient Requirements of Horses, Board on Agriculture and Natural Resources, and Division on Earth and Life Studies, *Nutrient Requirements of Horses*, 6th revised ed. (Washington: National Academies Press, 2007), pp. 44–68.

¹⁹ Wouter F. M. Henkelman, “‘Consumed before the King’: The Table of Darius, that of Irdabama and Irtaštuna, and that of His Satrap, Karkiš,” in *Der Achämenidenhof*, edited by Bruno Jacobs and Robert Rollinger, *Classica et Orientalia* 2 (Wiesbaden: Harrassowitz, 2010), pp. 667–775, esp. pp. 740–41. Gabrielli demonstrates that the primary grain listed by name in the Elamite tablets is barley, and that in almost all cases the amount of grain given is small (*Le cheval*, p. 132, tables 6–7); the exception seems to be for horses raised as meat (ibid., p. 48, table 9; and see below n. 20). See also Ann Hyland, *The*

Horse in the Ancient World (Westport: Praeger, 2003), p. 122. Our study of the Aramaic tablets is still in its initial phases, so we cannot yet provide meaningful comprehensive comparison with the amounts listed in the Elamite tablets. For a case study of the foraging patterns and nutritional intake of a herd of wild horses living in the Camargue in modern France, see P. B. Duncan, *Horses and Grasses: The Nutritional Ecology of Equids and Their Impact on the Camargue* (New York: Springer, 1992), esp. pp. 75–97.

²⁰ Gabrielli, *Le cheval*, p. 48, table 9. The consumption of equids remains normal in many parts of the world. Azzoni’s family recipe book, for instance, includes a delicious donkey stew to be eaten primarily in the winter months.

²¹ Thus Dusinberre’s horse, a 5-year-old Oldenburg training in dressage, eats hay and grass for her primary source of nutrition but also consumes a daily supplement consisting of soaked beet pulp (which provides extra bulk and moisture), barley (for energy), flax seed (for healthy coat and feet), and rice bran (because it tastes good).

²² For the importance of having a good balance between grain and forage in reducing disease, see D. C. Archer and C. J. Proudman, “Epidemiological Clues to Preventing Colic,” *Veterinary Journal* 172 (2005): 29–39 (colic), and James B. Rowe, Michael J. Lees, and David W. Pethick, “Prevention of Acidosis and Laminitis Associated with Grain Feeding in Horses,” *Journal of Nutrition* 124 (1994): 2742S–44S (laminitis).

²³ For the nutritional needs of donkeys, see Committee on Nutrient Requirements of Horses, *Nutrient Requirements of Horses*, pp. 268–72.

It is important to reiterate here that high-protein, high-fat feed supplements make horses frisky.²⁴ They are given to animals engaged in serious athletic pursuits — running, jumping, dressage, cavalry, etc. If a horse is being worked hard, feed supplements will not make it unbiddable or rampageous but will simply give it the extra energy it needs for its job; however, one would not give such supplements to an animal that must remain quiet and docile without much to do. The amount of dietary supplement fed to an equid is a delicate balance of the demands its work places upon it and the need for obedience. Thus small grain quantities of the sort listed on the tablets sealed by PFATS 0002 most likely indicate the athletic and the splendid, the sort of creatures that might have been drawing swift chariots or, possibly, carrying elite members of the armed forces (fig. 1.3).

Wider Connections

The tablets sealed by PFATS 0002 show variation in handwriting, the personal names of recipients, and other seals impressed on the surfaces of the tablet — including several instances when PFATS 0002 is the only seal to have been impressed. This variation seems to be a hallmark of the seal. Thus PFATS 0002 was apparently an office seal, not one that was associated with a particular person but rather one that could be used by multiple officials associated with a particular function. In this regard, perhaps, it parallels PFS 0048, a seal impressed not only on the Elamite tablets of the Fortification Archive but also on the uninscribed and the Aramaic corpora, that was used by an office responsible for disbursing grain.²⁵ PFATS 0002 can appear by itself, without counter-ratification, but it often does appear with other seals. The significance of this pattern is not clear to us. The surfaces on which the seal appears are also not consistent, although it is always impressed either on the obverse or reverse and seldom on any other surface of the tablet (see table 1.2). If there is another seal impressed on a tablet in addition to PFATS 0002, it is usually but not always either on the obverse or reverse; it may appear on the flat edge or (once) on the upper edge as well or instead.

Connections hinted at by the collocation of PFATS 0002 with other seals remain at this point largely unclear. The seal PFATS 0011, for instance, appears twice on these tablets in connection with PFATS 0002, both times in year 23 of Darius's reign and in association with rations for two horses (PFAT 0050, PFAT 0081). On other Aramaic tablets, as we will discuss in the future, PFATS 0011 is associated with significant rations apparently apportioned to military units in year 23. At this point, the significance of PFATS 0002 lies for us in its association with pairs of horses or donkeys, rather than its use together with specific other seals. The names of the individuals given on those tablets sealed by PFATS 0002, however, are very interesting and offer real insight into the function and role of the Aramaic tablets in the Fortification Archive as a whole (table 1.3).

Recipients of Grain

Table 1.3. Tablets and personal names associated with PFATS 0002

Tablet No.	Personal Name (?)	Seals
PFAT 0013	—	PFATS 0002, PFS 2150
PFAT 0025	<i>Smrdwk</i>	PFATS 0002
PFAT 0028	—	PFATS 0002
PFAT 0033	<i>Mtrn'(?)</i>	PFATS 0002
PFAT 0047	<i>Zbwš</i>	PFATS 0002, PFATS 0111
PFAT 0050	<i>Zbwš</i>	PFATS 0002, PFATS 0011
PFAT 0058	—	PFATS 0002, PFATS 0119
PFAT 0075	<i>Štyš</i>	PFATS 0002
PFAT 0081	—	PFATS 0002, PFATS 0011
PFAT 0102	<i>Wnyš</i>	PFATS 0002, PFATS 0142
PFAT 0220	—	PFATS 0002
PFAT 0495	<i>Gbh</i>	PFATS 0002

²⁴ For balancing diet and energy requirements, see Committee on Nutrient Requirements of Horses, *Nutrient Requirements of Horses*, esp. pp. 3–33, 211–12, and 216–17.

²⁵ Mark Garrison, pers. comm., 2006.

A certain *Zbwš* is named on two tablets sealed by PFATS 0002 as the person receiving grain (PFAT 0047 and PFAT 0050). PFAT 0047 is written in the same hand as PFAT 0050 and sealed by PFATS 0002 and PFATS 0111. PFATS 0011 is impressed on PFAT 0050 and PFAT 0081. On the three tablets thus linked — PFAT 0047 and PFAT 0050 linked by the handwriting and the naming of *Zbwš*, and PFAT 0050 and PFAT 0081 linked by the presence of PFATS 0011 along with PFATS 0002 — the document records grain given for two horses in the year 23, twice in the fall (September and November) and once in an unknown month. It seems likely that *Zbwš* was the recipient of grain recorded on all three tablets, and that both PFATS 0011 and PFATS 0111 were used by him or his representative.

Azzoni has linked this man to a figure known also from the Elamite texts of the archive: *Zbwš*, or *Zabuš*, should be connected with *Zamu* or *Zamuš*.²⁶ He is known from Fort. 1636 and PF 1247 as well as the Aramaic tablets, a spear/lance-bearer with high status who performed special missions:²⁷

Fort. 1636 (box 0382; no seal)

(⁰¹) 50 qts. of flour, (⁰¹⁻⁰³) allocation from Pirradauka, (⁰³) (for a man) *Zamuš* by name, (⁰⁴) his two companions (⁰⁴⁻⁰⁵) (and) their 6 servants. (⁰⁶⁻⁰⁷) He (Z.) carried a sealed authorisation by Parnakka. (⁰⁸⁻¹⁰) 3 (men and 6 servants) received (it) during 4 (days) as rations. (¹¹⁻¹³) Ninth month, year 24 (Nov-Dec, 497 B.C.).

PF 1247 (box 0931; seals PFS 0018, PFS 1189)

(⁰¹) 120 (qts.) of flour, (⁰¹⁻⁰²) allocation from Mirayauda, (⁰³) (for a man) *Zamuš* by name (⁰³⁻⁰⁴) and his 1 companion, (⁰⁴⁻⁰⁵) lance-bearers, (⁰⁵⁻⁰⁷) assigned (and) accounted for by Irdumartiya. (⁰⁷) (As) the king ordered, (⁰⁸⁻⁰⁹) they received (it) as rations. (¹⁰⁻¹²) Each daily received 1.5 qt., (¹²⁻¹³) during 40 days. (¹³⁻¹⁵) Fifth and sixth months, year 22 (Jul-Sep, 500 B.C.).

PF 1247 describes *Zamuš* as a high-status lance-bearer traveling with a companion to fulfill some special function as commanded by the king.²⁸ His high status is reiterated in Fort. 1636, which mentions an entourage of six servants. *Zbwš* is also mentioned by name on PFAT 0024, a tablet which is sealed by PFS 2150 — which appears also on PFAT 0013, one of the other tablets bearing an impression of PFATS 0002, but there without a personal name indicated. PFAT 0024 reads, “In year 22, *Zbwš* took rations for 2 horses for the months of Ab (and) Elul.” If the man receiving grain for two horses on the Aramaic tablets is indeed the same as the lance-bearer of the same name who appears on the Elamite tablets, as we suggest, it shows two things. The first is that this person has elite status, as indicated by his title and his profile on the Elamite tablets, a notion corroborated by his high-fed horses as shown in the Aramaic texts. The second is that different languages are used to record his receipts in different areas: Elamite for his actions, Aramaic for his steeds.

Henkelman suggests that the lance-bearer *Zamuš* strikes him as more likely to be mounted than drawn in a wheeled vehicle.²⁹ Christopher Tuplin’s recent work on the role of horses in the Achaemenid army demonstrates that spear-wielding individuals might be shown in visual representations both on horseback and in horse-drawn chariots, but notes that the former are much more common.³⁰ Indeed, it seems very likely that a cavalryman or other person engaged in essential business would wish to have a backup mount — or a pack animal — as well as one to ride, while patrolling or fighting or otherwise carrying out his duties. The persistent and consistent appearance of couples of animals on the tablets sealed by PFATS 0002 is very striking, however, and may in fact indicate a more formal arrangement such as a feisty pair yoked together to draw a swift vehicle. For now, all we can say with certainty is that there is insufficient evidence to determine just how the pairs of horses being grained by *Zbwš* and the other individuals named on this group of tablets were used.

Štyš is Old Persian **Šyatiš*-, perhaps *Šyatiš*. In addition to the tablets sealed by PFATS 0002, this man is also known from PFAT 0010, where he takes rations for four donkeys, and possibly PFAT 0074, which deals with donkeys’ rations in year 23.³¹ He is also mentioned on the Elamite tablets (as *Šyatizza/Šyatiš*): the name appears on Fort. 706:5, where

²⁶ Hallock, *Persepolis Fortification Tablets*, p. 173. An Akkadian version of the name (*Za-bu-šu*) appears in a Neo-Babylonian business document; see Albert Tobias Clay, *Legal and Commercial Transactions Dated in the Assyrian, Neo-Babylonian and Persian Periods: Chiefly from Nippur*, The Babylonian Expedition of the University, Series A: Cuneiform Texts 8.1 (Philadelphia: Department of Archaeology, University of Pennsylvania, 1908), p. 67.

²⁷ Wouter Henkelman, pers. comm., 2010; we are grateful to Henkelman for providing the following translations.

²⁸ See further Wouter F. M. Henkelman, “Exit der Posaunenbläser: On Lance-guards and Lance-bearers in the Persepolis Fortification Archive,” ARTA 2002.007 (www.achemenet.com/ressources/enligne/arta/pdf/2002.007.pdf): 23–25.

²⁹ Henkelman, pers. comm., 2010.

³⁰ Tuplin, “All the King’s Horses,” pp. 110, 114–15.

³¹ On PFAT 0010, he is attested as *Štš*, without the y.

it is associated with horses. Here, the horses are explicitly described as *rabbanna* “harnessed.”³² This description is no doubt of horses yoked together and may provide additional evidence for the connection between teams of equids and PFATS 0002.

Mtrn', if that is the correct reading of this name, is probably a rendering of Elamite Miturna (Old Persian **Vidarna-*), who turns up numerous times on the Elamite tablets.³³ At least two Miturnas are represented in the Elamite tablets of the Fortification Archive. One is Miturna (Hydarnes), satrap of Media, who issues *halmi* and is a person to whom others travel, as well as himself once appearing as a high-profile traveler heading for Media.³⁴ A second Miturna is an allocator of grain at Tikraš and Tenukku/a, both in the Persepolis region.³⁵ The man who accepts grain from the office represented by PFATS 0002 could be either of these individuals (or a third), although the second is perhaps more likely.

Wnyš is perhaps the Unušša/*(H)uniša- attested in one Elamite tablet (PF 1521, on disbursements of large quantities of flour for workers); he provides further evidence for links between the different linguistic parts of the archive.³⁶ *Smrdwk* is possibly a Babylonian name and may indeed contain the theophoric element Marduk.³⁷ *Gbh* is so far otherwise unattested and unidentified. Thus the people to whom the grain was being disbursed by the office represented by PFATS 0002 were of varied cultural backgrounds, including Babylonian, Persian, Elamite (or Persian-Elamite), as well as those of uncertain origin, people who may have been very high up indeed in the social hierarchy of the Achaemenid empire.

The seals with which PFATS 0002 appears include one that appears on multiple parts of the archive: PFS 2150 is impressed on four tablets written in Aramaic and on two Elamite tablets.³⁸ The seal is linked to disbursements of grain and other rations. On PFAT 0024, as mentioned above, the name of Zbwš appears. The other tablets mention other names. On the Elamite tablets, the seal is used by someone who receives large quantities of grain for workers; on PF-NN 2167, the seal seems to be associated with a man named Šadakuš. A Šadakuš is named on PF-NN 2103 in connection with horses (perhaps also PF-NN 0047). The other of the Elamite tablets on which PFS 2150 is impressed, PF-NN 0293, includes an Aramaic epigraph which reiterates the key elements of the content, as well as the date, of the Elamite text. Thus PFS 2150 links the Aramaic tablets sealed by PFATS 0002 with the Elamite tablets and their occasional Aramaic additions.

The other seals — PFATS 0011, PFATS 0111, PFATS 0119, and PFATS 0142 — have at this point been found only on the Aramaic tablets of the Fortification Archive. We find this interesting: the seals used on these concise tablets recording disbursements of grain to pairs of horses and donkeys are concentrated on the Aramaic tablets, but they highlight the connections across the different components of the archive. The personal names that appear in association with PFATS 0002 underscore this. People from a variety of ethnic backgrounds received grain for their animals from this office. It is possible that some of them were of elite social status. And most of them apparently also interacted with the scribes and offices represented in the Elamite part of the Fortification Archive. This is noteworthy: even when the seals included here were used only on tablets written in Aramaic, the seal users mentioned here are also represented by name and other seals on the Elamite tablets. Thus the links between names, handwriting, and seals demonstrate that the Aramaic tablets are closely interconnected with each other and with other parts of the archive. These connections begin to elucidate the real significance of the Aramaic part of the Fortification Archive.

The PFAT selection that was sealed by PFATS 0002 offers new nuances to our understanding of the archive as a whole. This set of terse tablets does not offer the richness of information provided by the Elamite tablets. The subset sealed by PFATS 0002 nonetheless demonstrates that certain offices or functions were overseen by people whose records were kept exclusively in Aramaic. It is possible that the scribes writing in Aramaic were themselves not native Aramaic speakers — this is demonstrated in some cases by the rendering of personal names (see n. 33), or in other

³² Jan Tavernier, *Iranica in the Achaemenid Period (ca. 550–330 B.C.): Lexicon of Old Iranian Proper Names and Loanwords, Attested in Non-Iranian Texts*, Orientalia Lovaniensia Analecta 158 (Leuven: Peeters, 2007), p. 319; Hallock, *Persepolis Fortification Tablets*, p. 758.

³³ Tavernier, *Iranica*, pp. 21–22, 65; Hallock, *Persepolis Fortification Tablets*, p. 733. Miturna/Mitarna appears on PF 0939:2, PF 0940:1f., PF 1135:1f., PF 1150:2, PF 1151:2, PF 1363:15, PF 1483:5f., PF 1545:2, PF 2009:22 (?), PF 2055:8f. and 13, PF 2070:21f., Fort. 1683:2, Fort. 3544:4, DB 25:13 and 15, DB 68:91. Although the Aramaic version of **Vidarna-* is *wdrn* (Tavernier, *Iranica*, pp. 22, 65), it is possible that this may be an Aramaic rendering of the Elamite version of the name. Alternatively, Old Persian **Miθrāna-* (Tavernier, *Iranica*, p. 250) is also possible although this seems less likely as the name is not attested otherwise in the PFA.

³⁴ See PF 1363, PF 1483, PF 1545, PF 2055, PFA 18, NN 0826, NN 1937, NN 2041, NN 2195, NN 2349. We are grateful to Henkelman for the non-PF references. Miturna is discussed in Pierre Briant, *From Cyrus*

to Alexander: A History of the Persian Empire, English translation by Peter T. Daniels (Winona Lake: Eisenbrauns, 2002), pp. 351, 392, 440, 445, 737, and 903, as well as Root, “Evidence from Persepolis.”

³⁵ PF 0939, 0940, 1125, 1150, 1151, NN 1528, Fort. 1638. Again, we are grateful to Henkelman for his input. He points out four more texts with a Miturna, too: Fort. 3544 mentions a Miturna who is a servant of the satrap Karkiš, while PF 2009, 2070, and NN 1865 mention someone who deals with sheep/goats and may have been a butcher. Henkelman suggests (pers. comm. 2010) the *Mtrn'* here is probably one of the more important Miturnas, either the dispenser of grain, or, perhaps, the satrap of Media. For Karkiš, see Henkelman, “Consumed before the King.”

³⁶ Tavernier, *Iranica*, p. 209; Hallock, *Persepolis Fortification Tablets*, pp. 426 and 770.

³⁷ The name Marduka (Aramaic *Mrdk* and *Mrdwk*) is also attested in the Elamite corpus (Hallock, *Persepolis Fortification Tablets*, p. 725).

³⁸ Aramaic: PFAT 0013, 0024, 0034, 0157; Elamite: PF-NN 0293, 2167.

cases by mistaken orthography that betrays a foreign ear to the language (for instance, mistakenly writing 𐤒 instead of 𐤓 in words such as 𐤒𐤌𐤓).³⁹

PFATS 0002 highlights the complex weave of the Fortification Archive. The office connected to it kept its records in Aramaic. But the connections across the linguistic components of the archive demonstrated by the people who received grain from the office shows that the same people could receive goods from multiple offices or individuals represented by both languages in the Fortification Archive. Thus the case of Zbwš indicates that the same individual could at times have had some of his activities reflected in Elamite, while other aspects of his life might be recorded in Aramaic. Mark Garrison has suggested that the Aramaic tablets and the uninscribed tablets of the archive may be linked to commodity distribution along the Royal Road.⁴⁰ Dusinberre has agreed that the usage patterns of seals on the Aramaic tablets may support this suggestion.⁴¹ Those tablets sealed by PFATS 0002 give us a first inkling of the connections between the multiple parts of the archive. Those tablets that record interactions in Aramaic demonstrate the sophistication of the Achaemenid Persian bureaucracy. They help us see the Fortification Archive at Persepolis as a residuum of the extraordinarily complex, interlinked administrative system that documented all that the Persepolis-based imperial bureaucracy controlled.

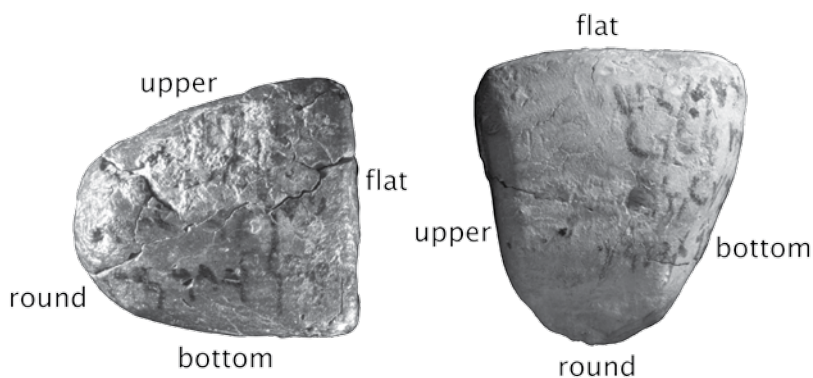


Figure 1.1. Obverses of PFATS 0013 and PFATS 0047, with surfaces labeled

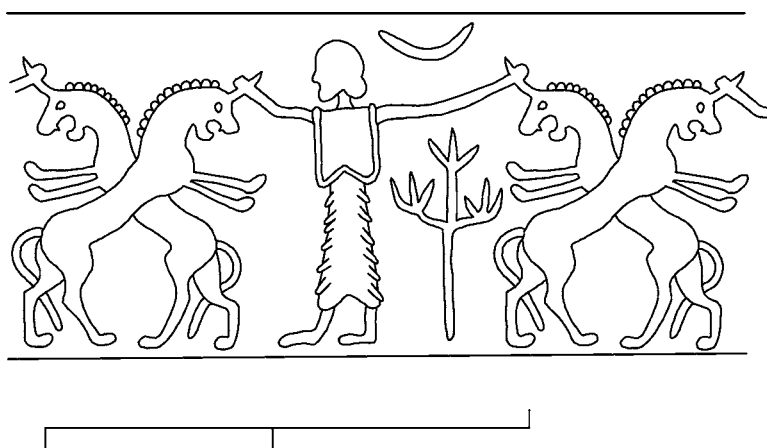


Figure 1.2. Collated drawing of the impressions of PFATS 0002

³⁹ See, e.g., PFAT 0124.

⁴⁰ Garrison, "Uninscribed Tablets."

⁴¹ Dusinberre, "Seal Impressions."

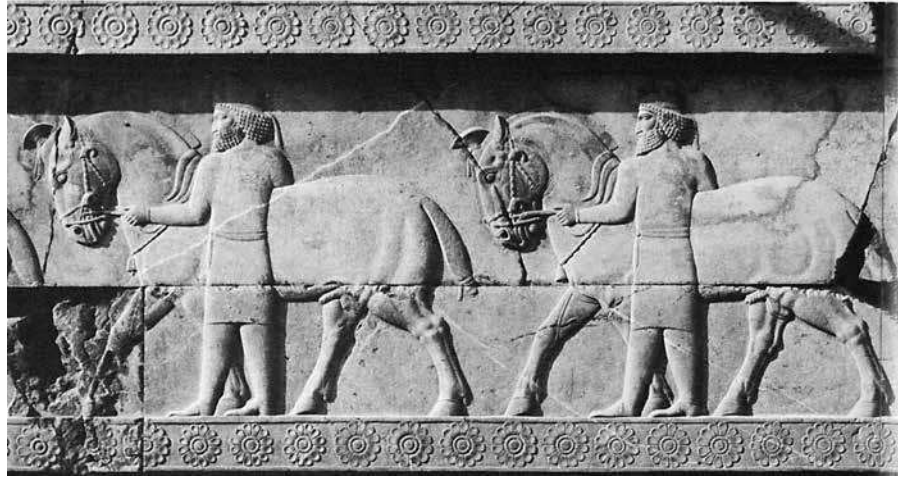


Figure 1.3. The king's horses, from Persepolis (Erich F. Schmidt, *Persepolis 1: Structures, Reliefs, Inscriptions*. Oriental Institute Publications 68 [Chicago: University of Chicago Press, 1953], pl. 52, detail)

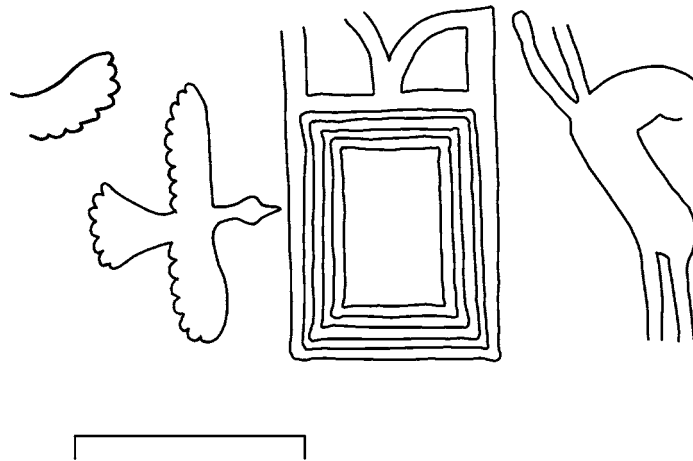


Figure 1.4. Collated drawing of the impression left by PFATS 0011

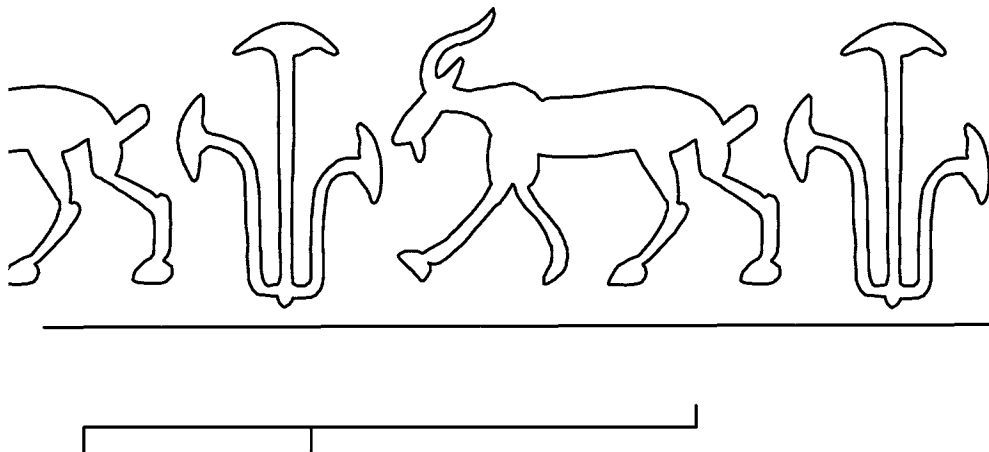


Figure 1.5. Collated drawing of the impression left by PFS 2150

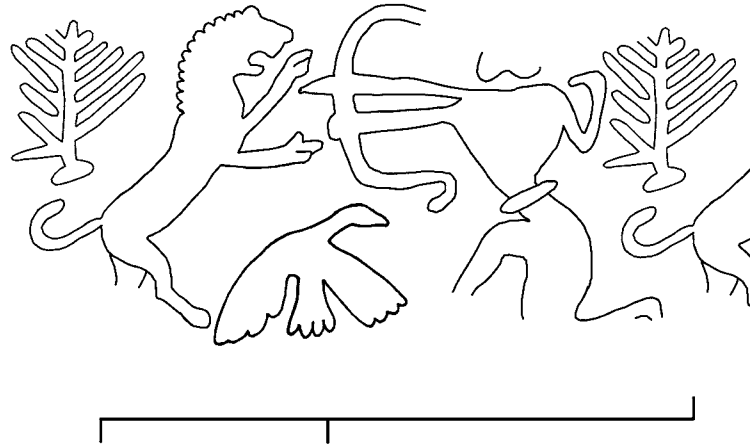


Figure 1.6. Collated drawing of the impression left by PFATS 0111

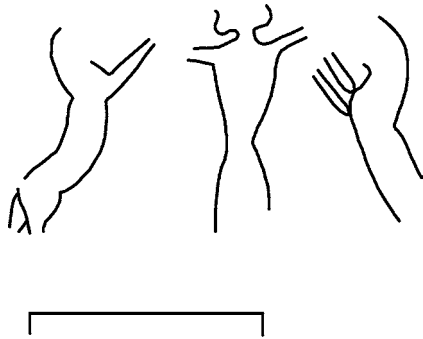


Figure 1.7. Collated drawing of the impression left by PFATS 0119

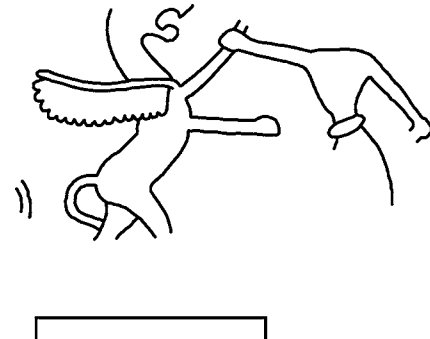


Figure 1.8. Collated drawing of the impression left by PFATS 0142

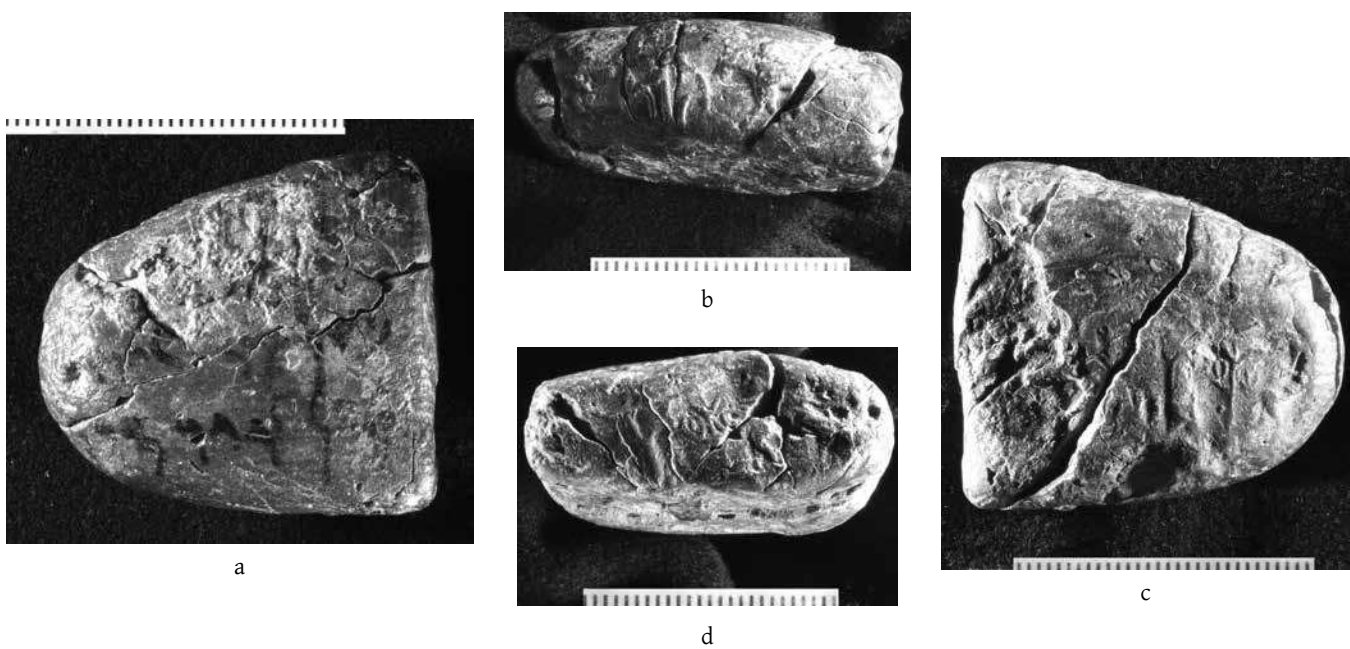


Figure 1.9. PFAT 013: (a) obverse, (b) upper edge with PFS 2150, (c) reverse with PFATS 0002, (d) flat edge with PFATS 0002

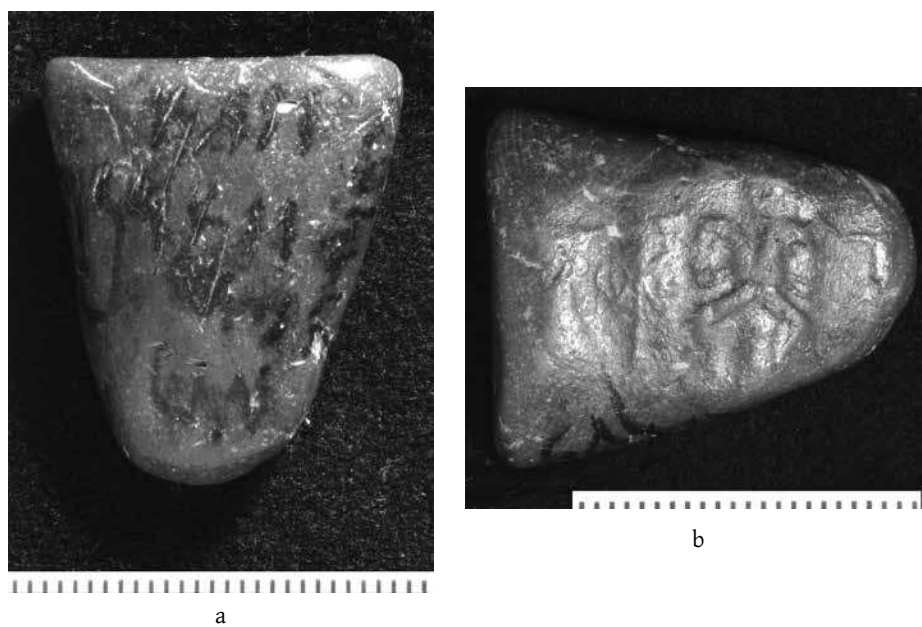


Figure 1.10. PFAT 025: (a) obverse, (b) reverse with PFATS 0002

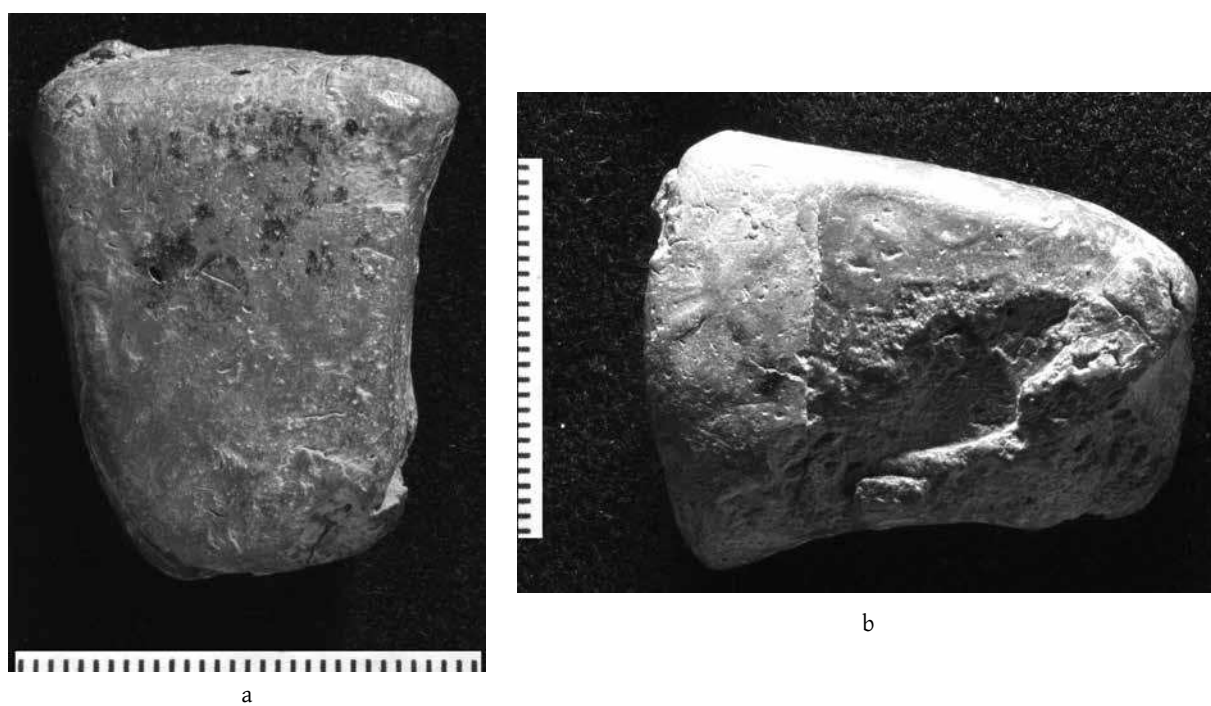
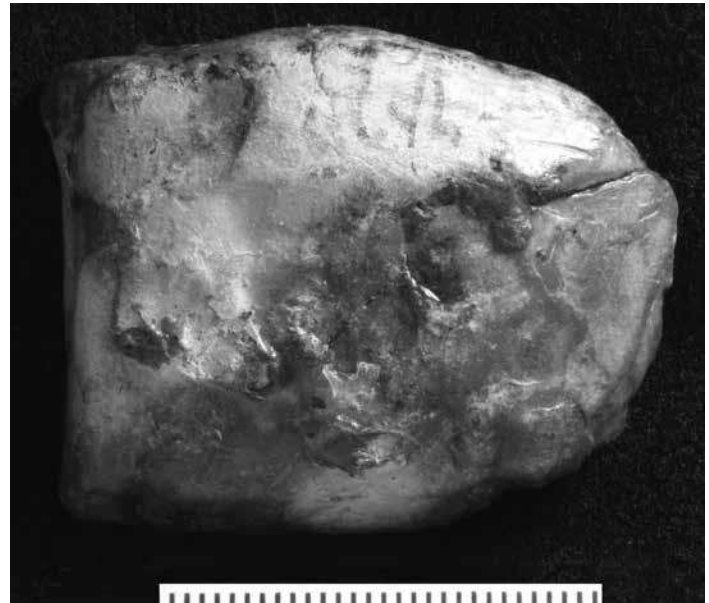


Figure 1.11. PFAT 028: (a) obverse, (b) reverse with PFATS 0002



a



b

Figure 1.12. ??? NEED CAPTION



a



b



c



d

Figure 1.13. PFAT 047: (a) obverse, (b) obverse with PFATS 0002, (c) reverse with PFATS 0111, (d) flat edge with PFATS 0111

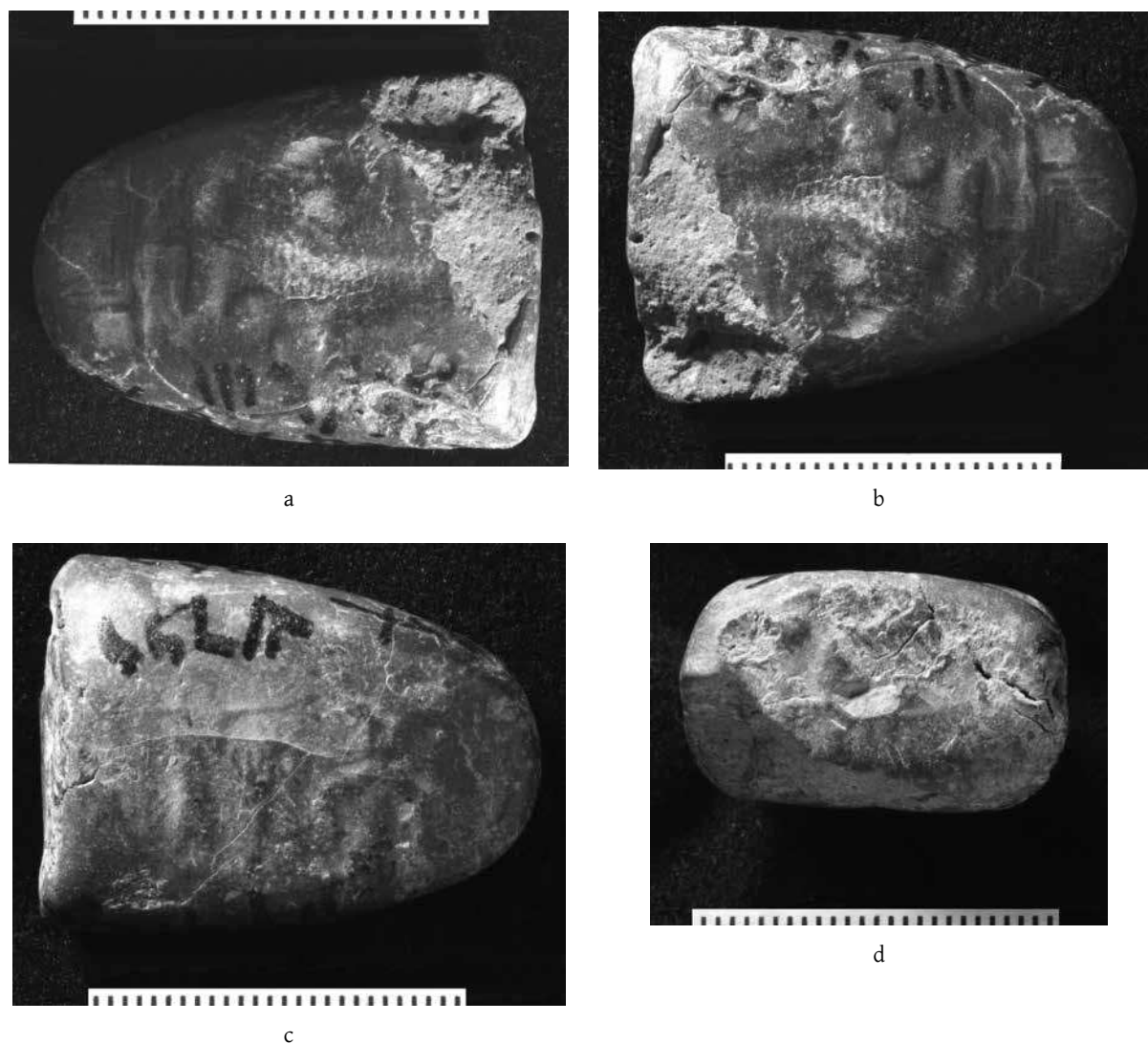
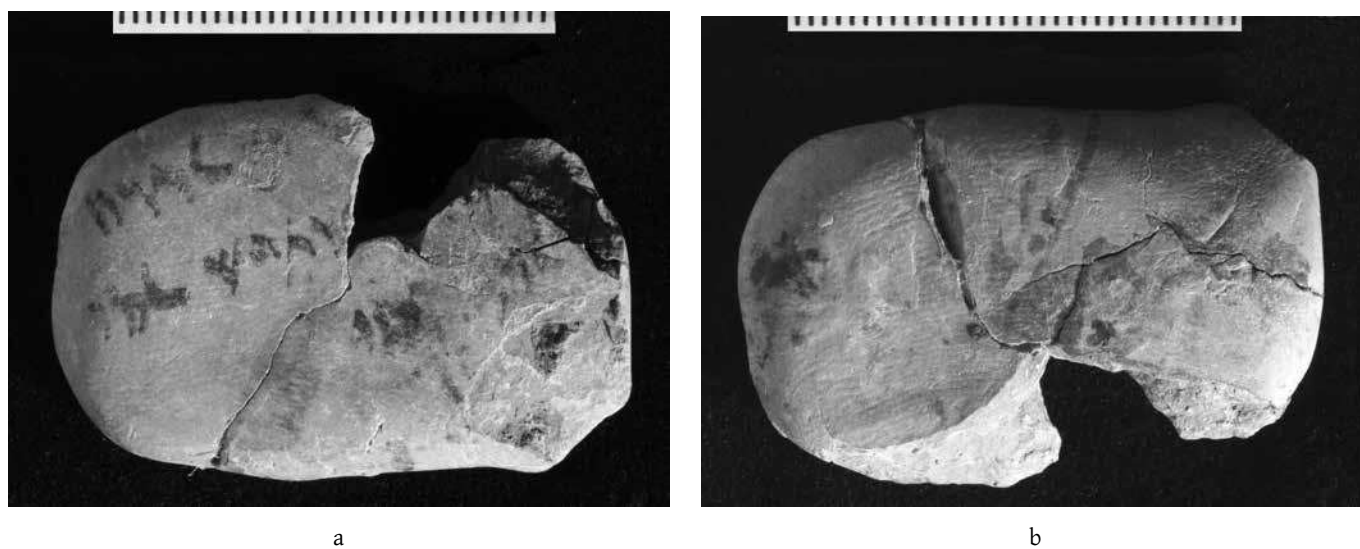


Figure 1.14. PFAT 050: (a) obverse, (b) obverse with PFATS 0011, (c) reverse with PFATS 0002, (d) flat edge with PFATS 0011



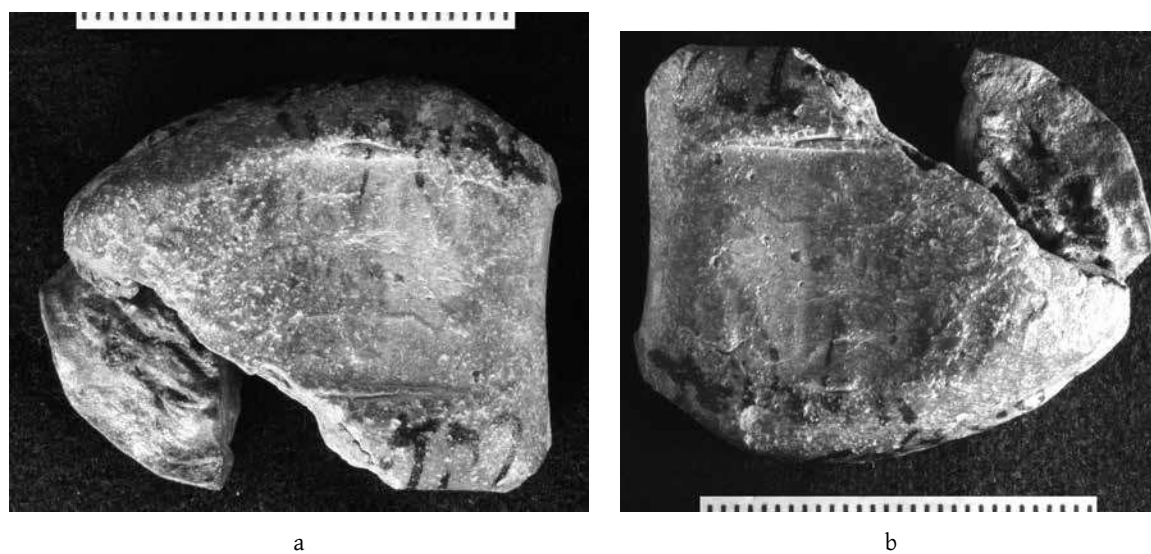
Figure 1.15. PFAT 058: (a) obverse, (b) obverse with PFATS 0119, (c) reverse with PFATS 0002



a

b

Figure 1.16. PFAT 075: (a) obverse, (b) reverse with PFATS 0002



a

b



c

Figure 1.17. PFAT 081: (a) obverse, (b) obverse with PFATS 0002, (c) reverse with PFATS 0011

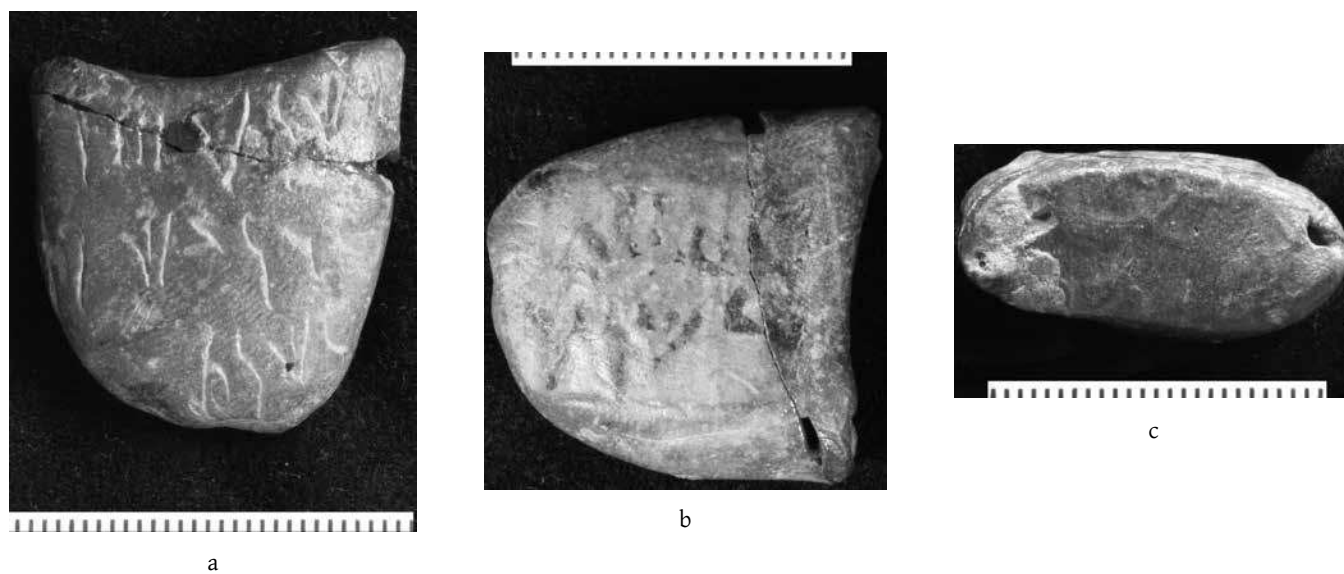


Figure 1.18. PFAT 102: (a) obverse, (b) reverse with PFATS 0002, (c) flat edge with PFATS 0142

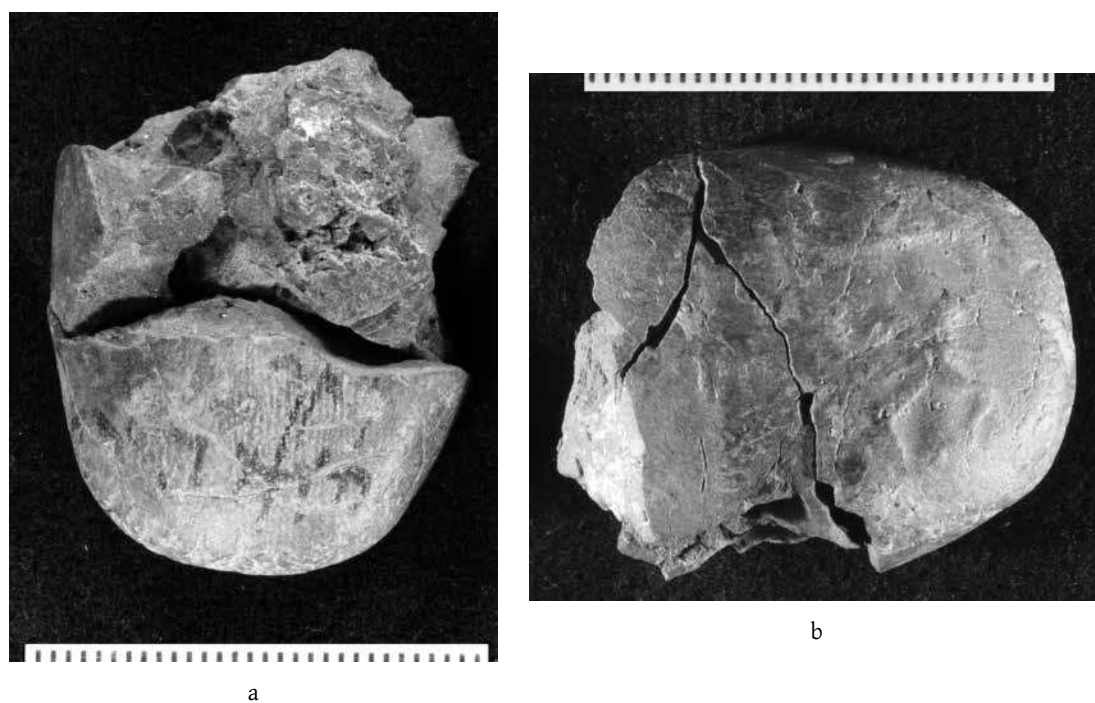


Figure 1.19. PFAT 220: (a) obverse, (b) reverse with PFATS 0002

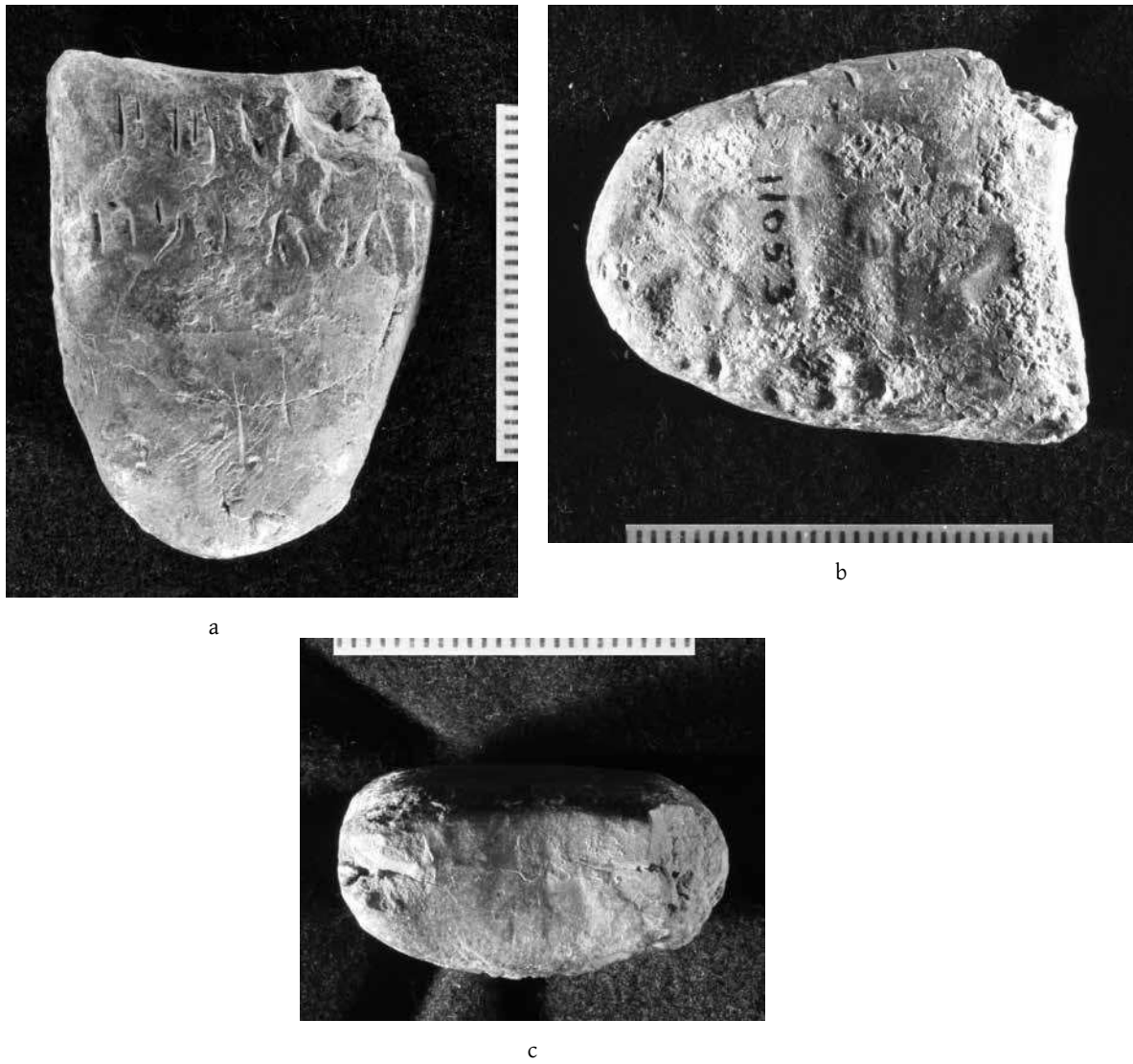


Figure 1.20. PFAT 495: (a) obverse, (b) reverse with PFATS 0002, (c) flat edge with illegible seal