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A grain account in the Swansea Wellcome Collection

(T. Swansea W552)*

(Plates 1–4)

A grain account, dating to the late Ptolemaic or Roman period and inscribed on a wooden tablet, is kept in the Egypt Centre of Swansea University (United Kingdom). It details the seed-grain that has been distributed to the arable land in a specific month. Two categories of grain are mentioned, *sw* and *šbnn*. The latter, probably related to *šbn*, ‘grain’, is not attested in this form in any Demotic text so far.

Introduction

The collection of the Egypt Centre of Swansea University contains a small wooden tablet (accession number W552, pls. 1–4), which is inscribed in demotic with a grain account, probably dating to the late Ptolemaic or Roman period. It is unclear where the object – now part of the Wellcome Collection in the Egypt Centre¹ – originally came from. The

* I wish to thank Carolyn Graves-Brown, the curator of the Egypt Centre Swansea, for the permission to publish the object and the photographs (pls. 1 and 3). I owe a great debt to Sven P. Vleeming and Friedhelm Hoffmann for suggesting numerous readings and for discussing the text with me. I am also grateful to Joachim F. Quack for sharing his views and an unpublished article with me (see note 9) and to Troy L. Sagrillo for reading a draft of the manuscript.

¹ For details see <http://www.egypt.swansea.ac.uk/index.php/the-collection-01/24-wellcome>: Sir Henry Wellcome (1853–1936), from Almond, Wisconsin, USA, trained as a pharmacist and came to London in 1880, where he set up a successful pharmaceutical firm. Wellcome became a collector, travelled to Egypt, among other countries, and employed agents to buy objects for him in many countries. After his death, the Wellcome Trust was established for his vast collection. In 1971 an agreement was signed by University College London, on behalf of the Wellcome Trustees, and University College Swansea. The objects are now housed in the Egypt Centre of Swansea University. According to Carolyn Graves-Brown (Egypt Centre), the grain account, misunderstood as a mummy label at times, may have been either bought from Frankland Hood, from whom Sir Wellcome obtained various objects, see SOTHEBY, WILKINSON, HODGE, *Catalogue of the important collection of Egyptian antiquities, etc., formed by the late Rev. W. Frankland Hood during the years 1851–1861*, Tuesday, 11 November 1924 (London: Sotheby), 21, lot 147: ‘four wooden mummy labels in Greek; one with a long hieratic inscription’; or – and this seems more likely – from the MacGregor Collection; see SOTHEBY, WILKINSON, HODGE, *Catalogue of the MacGregor Collection of Antiquities, which will be sold by auction on Monday, the 26th of June, 1922, and four following days, and Monday, the 3rd of July, 1922, and three following days* (London: Sotheby), lot 642: ‘four mummy labels, in wood, two inscribed in Demotic and two in Greek’. Henry Stow, one of Wellcome’s men, bought these objects; see T. HARDWICK, ‘Five months before Tut, purchasers

text itself, although providing very specific numbers, does not give any indication for the provenance.

The wooden tablet is 13.5cm long and 5cm wide, forming a rectangle with a trapezoidal handle projecting from one of the short sides. A hole is drilled through the handle, so that the *tabula* could have been used as a label attached to another object. The tablet is almost complete, with small damage at the upper left corner of the rectangle.

The *recto* is inscribed with twelve lines of demotic, starting immediately below the handle. The script in black ink is clearly legible in the first eight lines, but more faded in the following lines.² The *verso* is inscribed with one remaining line of demotic. Traces of ink seem to be discernable at the beginning of a possible second line. The rest of the *verso* was not inscribed.

Text *recto* (pls. 1–2):

- | | | |
|----|--|-----------------------------------|
| 1 | $p^3 \dot{p}p \dot{n}' t^3 pr.t-sh.t$ | |
| 2 | $\dot{i}.\dot{i}r \dot{s}m r p^3 tlw$ | |
| 3 | $(n) \dot{i}bt 3 \dot{h}.t (sw) 6$ | sw $\frac{1}{4}$ |
| 4 | sw 8 | sw 1 |
| 5 | sw 9 | sw $\frac{1}{2}$ |
| 6 | $\frac{1}{3} \epsilon n <sw> \dot{s}bnn^3$ | $\frac{1}{2} \frac{1}{12}$ |
| 7 | sw 10 | sw $\frac{1}{2}$ |
| 8 | sw (1)7 | sw $\frac{1}{12}$ |
| 9 | sw (1)9 sw $\dot{s}bnn^3$ | $\frac{1}{2}$ |
| 10 | sw 20 sw $\dot{s}b^n n^n$ | $\frac{1}{2}$ |
| 11 | sw 23 sw $[\dot{s}]b^n n^n$ | $[\frac{1}{3}]$ |
| 12 | [blank] (?) | r? sw $4\frac{1}{2} \frac{1}{12}$ |

- | | | |
|---|----------------------------------|---------------------------------------|
| 1 | The account of the seed-grain | |
| 2 | that has gone to the arable land | |
| 3 | (in) month 3 of Akhet, (day) 6 | $\frac{1}{4}$ (<i>artaba</i>) wheat |

and prices at the MacGregor sale, 1922', *Journal of the History of Collections* 23 (2011), 179–192, available online: <http://jhc.oxfordjournals.org/content/23/1/179.full.pdf+html?sid=c8326a87-1c25-4e70-b5d9-c7405d0f3796> with Appendix 1: http://jhc.oxfordjournals.org/content/suppl/2010/06/08/fhq015.DC1/Appendix_1.pdf (list of purchasers and prices, now held in the Wilbour Library of Egyptology). See also D. MUELLER, 'Three mummy labels in the Swansea Wellcome Collection', *JEA* 59 (1973), 175.

² Wood was a material that could easily be re-used by washing off the previous inscription. There is no indication, however, that the Swansea tablet was re-used. The lines still preserved belong to the same context as the grain account.

4 day 8	1 (<i>artaba</i>) wheat
5 day 9	$\frac{1}{2}$ (<i>artaba</i>) wheat
6 again $\frac{1}{3}$, <wheat>: grain	$\frac{1}{2}$ $\frac{1}{12}$ (<i>artaba</i>)
7 day 10	$\frac{1}{2}$ (<i>artaba</i>) wheat
8 day (1)7	$\frac{1}{12}$ (<i>artaba</i>) wheat
9 day (1)9, wheat: grain	$\frac{1}{2}$ (<i>artaba</i>)
10 day 20, wheat: grain	$\frac{1}{2}$ (<i>artaba</i>)
11 day 23 wheat: grain	$\frac{1}{3}$ (<i>artaba</i>)
12 [blank] (?)	total: (<i>artabai</i>) wheat: $4\frac{1}{2}$ $\frac{1}{12}$

Notes (*recto*):

- 1 The preposition *n* is written above the line. The scribe might have forgotten to write it and inserted it after the line (or text) had been completed.
t3 pr.t-sh.t: ‘das Saatgut’, see W. ERICHSEN, *Demotisches Glossar* (Kopenhagen: Ejnar Munksgaard, 1954), 136 and 451. R. DEMARÉE and B.P. MUHS, ‘Grain accounts from Gebelein in Nijmegen’, in: F.A.J. HOOGENDIJK and B.P. MUHS (eds.), *Sixty-five papyrological texts presented to Klaas A. Worp on the occasion of his 65th birthday*, P. L. Bat. 33 (Leiden and Boston: Brill, 2008), 68 (*n3 pr-sh.t*). See Coptic ⲉⲃⲣⲁ: W. WESTENDORF, *Koptisches Handwörterbuch* (Heidelberg: Winter, 1977), 32 (‘Korn, Same, Getreide’); W.E. CRUM, *A Coptic dictionary* (Oxford: Clarendon Press, 1939/1962), 53 (‘seed’).
- 2 *p3 tlw*: see J.H. JOHNSON (ed.), *The Demotic Dictionary of the Oriental Institute of the University of Chicago (CDD)*, online, 127 (*t*): ‘irrigated(?) land, cultivable(?) land’; phonetic writing with a plant determinative. For a discussion see P.W. PESTMAN, *L’archivio di Amenotes figlio di Horos (P. Tor. Amenotes). Testi demotici e greci relativi ad una famiglia di imbalsamatori del secondo sec. a. C.* Catalogo del Museo Egizio di Torino: Serie 1, vol. 5 (Milano: Istituto editoriale Cisalpino – La Goliardica, 1981), 151, note I; H. FELBER, *Demotische Ackerpachtverträge der Ptolemäerzeit. Untersuchungen zu Aufbau, Entwicklung und inhaltlichen Aspekten einer Gruppe von demotischen Urkunden*. Ägyptologische Abhandlungen 58 (Wiesbaden: Harrassowitz, 1997), 135–7, who translates ‘Kulturland; anbaufähiges Land’. U. KAPLONY-HECKEL, *Die demotischen Gebelen-Urkunden der Heidelberger Papyrus-Sammlung* (Heidelberg: Winter, 1964), 40, text 13, line 5, translates ‘der Damm’, which does not fit the context here.
- 6 The beginning of the line is not entirely clear. The fraction of one third and the adverb

‘*n* seem to continue the enumeration of grain in line 5, so that the one third also seems to belong to the day 9 mentioned in line 5. The phrase of $\frac{1}{3}$ ‘*n* disrupts the structure established otherwise in lines 4 to 12, which mentions the day first and then the amount of grain.

šbnn³: both the *Demotisches Glossar* and the *CDD* do not refer to šbnn³, which seems to be related to šbn, especially since it is also written with a plant determinative; for šbn ‘grain’ (lit. ‘that which is mixed’) see the *Demotisches Glossar*, 499; *CDD*, 81 (š); S. GIANOTTI and C. GIORNI, ‘Due esempi di ricerca e schedatura attraverso il database demos’, *Egitto e Vicino Oriente* 29 (2006), 108. WESTENDORF, *Handwörterbuch*, 304, and CRUM, *Dictionary*, 553, refer to $\overline{\text{W}}\text{BIN}$ or $\overline{\text{W}}\text{BON}$ (‘grain’), but they also include references to $\overline{\text{W}}\text{BENNE}$ (WESTENDORF, *Handwörterbuch*, 556: ‘Palmfasern’; CRUM, *Dictionary*, 553: vide **BNNE** on p. 40: ‘date palm-tree’, related to Greek $\sigma\epsilon\beta\acute{\epsilon}\nu\iota\omicron\nu$ or $\sigma\epsilon\beta\acute{\epsilon}\nu\nu\iota\omicron\nu$, ‘palm-fibre’). The word palm-fibre does not fit the context, however.

According W. CLARYSSE and G. VAN DER VEKEN, *The eponymous priests of Ptolemaic Egypt*. P. L. Bat. 24 (Leiden: Brill, 1983), 158, § 36, and K.-TH. ZAUZICH, ‘Zwei wenig bekannte Schreibregeln und der Name Poimandres’, *Enchoria* 31 (2008/9), 153–62, a final -³ can be added to words terminating in -*n*.

- 7 There are some prominent black dots beneath the word šbnn³ of line 6, which should not be read. Further dots can be seen at various places of the tablet. I presume that they do not have a specific meaning and cannot be read.
- 8 The date at the beginning reads only ‘day 7’, but one might wonder if it should be read ‘day 17’ in order to follow the sequence of dates established before. This would also mean that the date in line 9 should be emended from ‘day 9’ to ‘day 19’.
In line 8 the scribe switches his writing of *sw* ‘wheat’; in the first seven lines he only adds a plant determinative, from line 8 onwards he omits the plant sign and adds a small tick, which seems to be a grain determinative, perhaps the abbreviated form of a plant sign. See S.P. VLEEMING, ‘Some notes on the artabe in Pathyris’, *Enchoria* 9 (1979), 93: 1A3 and 1A5, with references to the texts, in which both writings are attested.
- 9 The fraction $\frac{1}{2}$ after the word šbnn³ seems clear.
- 11 If the sum of wheat in line 12 is read correctly as $4\frac{1}{2}\frac{1}{2}$, one needs to restore the number $\frac{1}{3}$ at the end of the line since lines 3 to 10 add up to $4\frac{1}{4}$.
- 12 The beginning of the line, where the date was mentioned in the previous lines, is left blank, which also seems to indicate that no further specific amount of grain is mentioned but rather the total of the sums above.

In regard to the numbers, the preserved script seems to clearly read 4, $\frac{1}{2}$, and a further

number, most likely $\frac{1}{2}$. Before the numbers, *sw* 'wheat' is clearly legible. The sign preceding *sw* seems to be *r* (*Demotisches Glossar*, 36 and 238: *r* as a writing of *ir*, 'macht'). Another option could be to read *tmt* (*Demotisches Glossar*, 634: 'Summe') instead of *r*, which could be written in an elaborate way ending on the sign before *sw* and starting with the traces of the sign(s), which seem to be attested in the middle of the line.

Text verso (pls. 3–4):

1 ... *sw* 20 (?) \overline{d}^3 *sw* ...

2 ...

1 ... 20 (artabai) wheat (?), lack of (= remain of?) wheat ...

2 ...

Notes (text verso)

- 1 The text does not seem to continue the inscription on the *recto*. The beginning of the line is lost but a word for 'total', perhaps *tmt*, could possibly be an option.
- 2 There are traces of a second line but it is completely lost.

Comments and conclusion

The text appears to deal with the distribution of seed-grain, measured in fractions of the *artaba*. The word for grain-measure, *artaba*, which contained roughly 30 or 40 litres, depending on the specific *artabai* used,³ is not mentioned but implied.⁴ The amount totals more than 4 *artaba* of grain; if the numbers in line 12 are read correctly, to $4\frac{1}{2} \frac{1}{2}$ *artaba*. On the basis of the information gained from documentary papyri of the Ptolemaic Period, M. Schnebel calculated roughly one *artaba* of wheat as seed-grain per *aroura* of royal and

³ For the *artaba* as a grain-measure and its capacity see S.P. VLEEMING, 'Some notes on the artabe in Pathyris', *Enchoria* 9 (1979), 93–100; ID., 'Maße und Gewichte', in: W. HELCK and W. WESTENDORF (eds.), *Lexikon der Ägyptologie* III (Wiesbaden: Harrassowitz, 1980), 1209–14, esp. 1210: C2; ID., 'The artaba, and Egyptian grain-measures', in: R.S. BAGNALL et al. (eds.), *Proceedings of the Sixteenth International Congress of Papyrology*. American Studies in Papyrology 23 (Chico/CA: Scholars Press, 1981), 537–45.

⁴ See for example R. DEMARÉE and B.P. MUHS, 'Grain accounts from Gebelein in Nijmegen', in: F.A.J. HOOGENDIJK and B.P. MUHS (eds.), *Sixty-five papyrological texts presented to Klaas A. Worp on the occasion of his 65th birthday*, P. L. Bat. 33 (Leiden and Boston: Brill, 2008), 65–75. The five accounts are preserved on a wooden tablet, which is 52cm high and 16.5cm wide. Here, wheat (*sw*) and barley (*it*) form the seed-grain.

private land, though varying numbers are attested, probably depending on the quality of land.⁵ The amount of land, which could be sown with the amount of *artabai* detailed on the *recto* of the Swansea grain account, adds up to more than 4 *arourai*. If the reading of the *verso* is correct, the text might refer to 20 *artaba* of wheat, a considerably larger amount.

As for the seed-grain, two categories are mentioned: *sw* 'wheat' and *šbnnj* 'grain'.⁶ As mentioned in the note to line 6 above, the term *šbnnj* is not attested in any other (published) text so far,⁷ so that it is difficult to determine its exact meaning. The writing for *sw* changes in line 8: in the first seven lines, the scribe wrote a plant sign as a determinate; from line 8 onwards he omits the plant sign and adds a small tick, which seems to be a grain determinative, perhaps the abbreviated form of a plant sign.

Though well preserved, the *Sitz im Leben* of this wooden tablet is not entirely clear beyond the fact that seed-grain is detailed. The *tabula* in a form of a mummy label could have been attached to another object associated with seed-grain. It is not a very likely scenario, however, since different sorts of seed-grain are detailed, and the amount is quite large to be placed in only one sack. The above-mentioned accounts written on a piece of furniture now kept in Nijmegen (see DEMARÉE and B.P. MUHS, 'Grain accounts from Gebelein in Nijmegen'), it seems, could not have been attached to a specific object either. K. Vandorpe and K.A. Worp have published land texts on tablets that also look like mummy labels.⁸ The prefabricated wooden tablets were probably easily available, also for

⁵ M. SCHNEBEL, *Die Landwirtschaft im hellenistischen Ägypten I: Der Betrieb der Landwirtschaft*, MBP 7 (München: Beck, 1925), 125–7. For seed-grain in Egypt see generally W. HELCK, 'Saatgut' in: W. HELCK and W. WESTENDORF (eds.), *Lexikon der Ägyptologie V* (Wiesbaden: Harrassowitz, 1984), 321–2. See S. VINSON, 'P. Brooklyn 37.1647E, D(1)/2. An early Ptolemaic agricultural account', in: F. HOFFMANN and H.J. THISSEN (eds.), *Res severa verum gaudium. Festschrift für Karl-Theodor Zauzich zum 65. Geburtstag am 8. Juni 2004*, *Studia Demotica* 6 (Leuven: Peeters, 2004), 595–611, for a calculation of human labour and animal power to plow the land. For arable agriculture on an estate in the Fayyum in the third century AD see D. RATHBONE, *Economic rationalism and rural society in third century A.D. Egypt: the Heroninos Archive and the Appianus estate* (Cambridge: Cambridge University Press, 1991), esp. 228–44, where he sets out the general context on the basis of documentary papyri and further information. See also A. MONSON, *From the Ptolemies to the Romans. Political and economic change in Egypt* (Cambridge: CUP, 2012), 170–1.

⁶ According to M.A. MURRAY, 'Cereal production and processing', in: P.T. NICHOLSON and I. SHAW, *Ancient Egyptian materials and technology* (Cambridge: Cambridge University Press, 2000), 505–36, esp. 518–9 ('sowing'), a mixture of two or more cereal or pulse species are sometimes sown together. Perhaps *šbnnj* 'grain' refers to such mixed seed-grain?

⁷ U. Kaplony-Heckel has dealt with many accounts, conveniently collected in her *Sammelschrift*: U. KAPLONY-HECKEL, *Land und Leute am Nil nach demotischen Inschriften, Papyri und Ostraka. Gesammelte Schriften*, Teil 1–2, ÄA 71 (Wiesbaden: Harrassowitz, 2009). Besides this, not many grain accounts have been published.

⁸ K. VANDORPE and K.A. WORP, 'Paying *prostimon* for new vineyard land (T. BM inv.no. EA 56920). A

record-keeping, without the intention of attaching them necessarily to an object. One could assume the same for the Swansea grain account.

The delivery of grain starts on day 6 of the month Hathyr, the third month of Akhet; a year is not given. The provenance from where exactly in Egypt the label originated remains unclear. The content of the inscription does not point to any specific area in Egypt. The word *tlw* refers to arable land in general terms only.

It is difficult to establish a date for the grain account on the basis of the palaeography, though a late Ptolemaic or Roman date seems more likely. Due to the relatively even thickness of the strokes we can assume that a *calamus* or reed pen instead of a traditional rush seems to have been used, a criterion which also points to the late Ptolemaic and Roman period.⁹

bilingual set of wooden tablets from the archive of Horos, son of Nechouthes', *CdE* 88 (2013), 105–15. I thank Cary Martin for this reference. See also the comprehensive list of wooden tablets published by K.A. Worp, *A new survey of Greek, Coptic, Demotic and Latin tabulae preserved from Classical antiquity. Trismegistos Online Publications 6* (Leiden/Leuven 2012, version 1.0: <http://www.trismegistos.org/top.php>).

- ⁹ For a discussion of the use of the *calamus* and rush see J.F. Quack, 'Rohrfedertorheiten? Bemerkungen zum römischen Hieratich', in: U. Verhoeven (ed.), *Ägyptologische „Binsen“-Weisheiten I–II. Neue Forschungen und Methoden der Hieratistik. Akten zweier Tagungen in Mainz im April 2011 und im März 2013* (Stuttgart: Franz Steiner, 2015), 435–68. I am grateful to Joachim F. Quack that he made his manuscript available to me before its publication. According to his research, the *calamus* might have been used as early as the late second century BC. See also G. Menci, 'New evidence for the use of the Greek reed pen in the hieratic script of the Roman Period', in: Z. Hawass (ed.), *Egyptology at the Dawn of the Twenty-First Century. Proceedings of the Eighth International Congress of Egyptologists, Cairo, 2000*, vol. II (Cairo: The American University in Cairo Press, 2003), 397–9 (with further references).

4. Tafelverzeichnis mit Abbildungsnachweisen

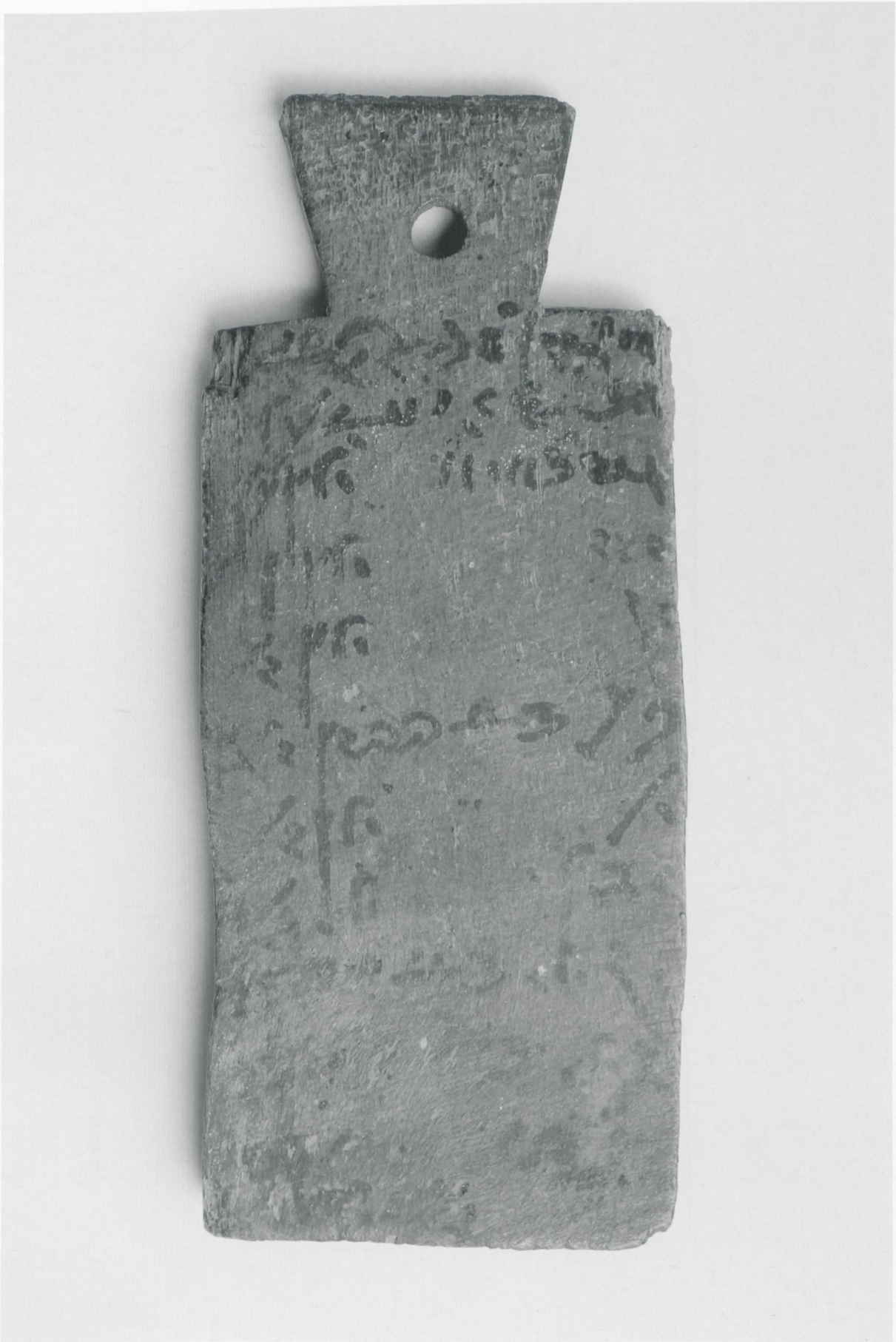
- 1 T. Swansea W552 recto, Egypt Centre Swansea (photograph: C. Graves-Brown)
- 2 T. Swansea W552 recto, Egypt Centre Swansea (drawing: M. Minas-Nerpel)
- 3 T. Swansea W552 verso, Egypt Centre Swansea (photograph: C. Graves-Brown)
- 4 T. Swansea W552 verso, Egypt Centre Swansea (drawing: M. Minas-Nerpel)

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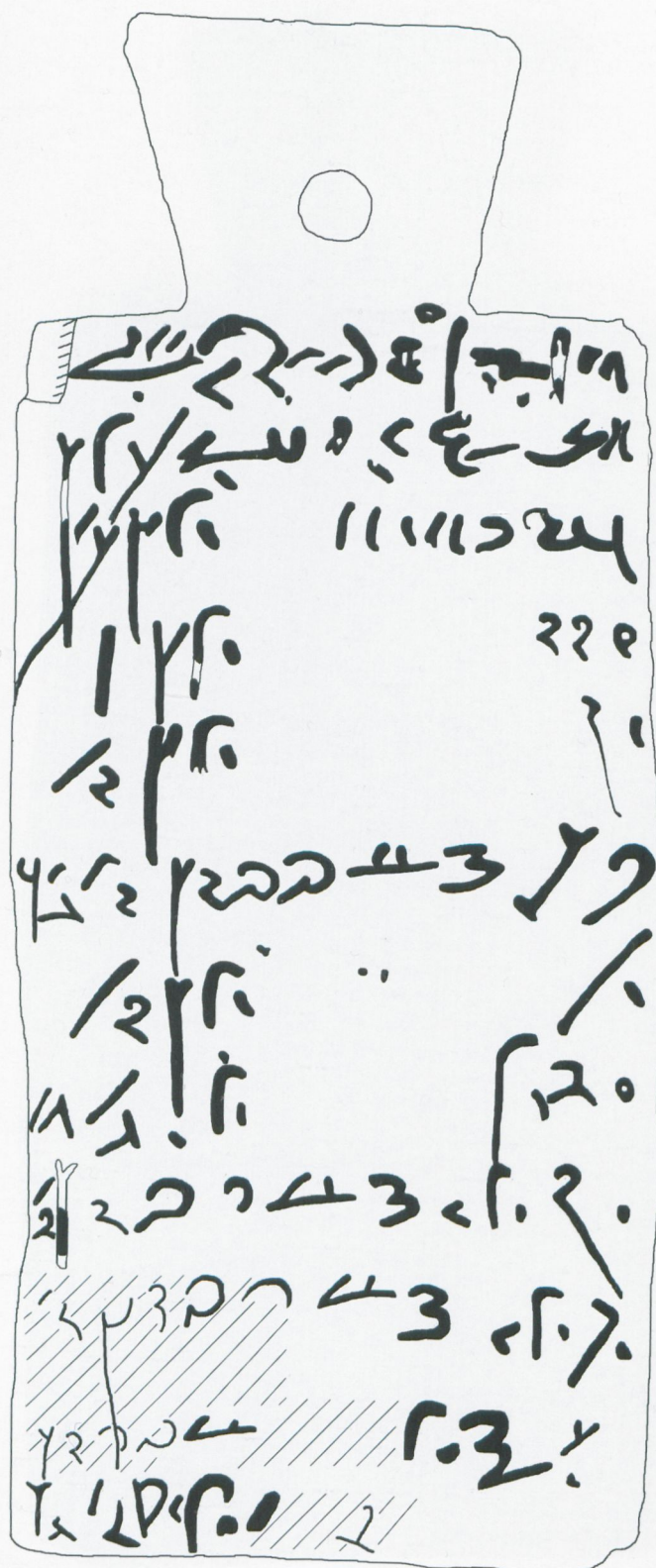
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T. Swansea W552 *recto*





T. Swansea W552 verso

