Peter van Soesbergen: *Minoan Linear A*, Vol. I, 2: **APPENDIX 2**
Linear A *po-to-ku-ro* (HT 122b.6 and HT 131b.4) : Hurrian ***puttu(-)kuru*** [1]

Starting from A. Kober's observation that Linear A and Linear B employed different words for 'total' in a consistent manner, P. Meriggi pointed out that Linear A summations were always preceded by two syllabic signs. If these were transliterated with the Ventris's values of their Linear B counterparts, the result would be either *ku-ro* or *ku-lo*, which could represent the common Semitic root *kl* meaning 'all'.[2] The challenge was soon accepted by C.H. Gordon in two articles.[3] He integrated his results into a monograph *Evidence for the Minoan language*, Ventnor, N.J. 1966, in which he changed his allegiance from Akkadian to West Semitic, Phoenician in particular, and compared *ku-ro* with Semitic *kull-* (e.g. Hebrew כל *kl*) 'all'.[4] Identification of Linear A *ku-ro* or *ku-lo* with Semitic *kl* by P. Meriggi and subsequently by C.H. Gordon seemed attractive on semantic grounds, but Gordon's approach was soon met with criticism, because terms like *ku-ro* seem to defy definite conclusions as to the character of the idiom written with Linear A, since the term may be a loanword just as the English word 'total' is derived from Latin *totus* 'entire' [through Middle English, from Old French, from medieval Latin *totalis*].[5]

E.J.Furnée has offered another etymology for Linear A *ku-ro*: "Das einzige Wort aus Linear A, dessen Lesung und Bedeutung hundertprozentig sicher erscheinen, nämlich *ku-ro* 'Summe', könnte m.E. genauso gut – oder vielleicht sogar besser als bislang geschehen ist (N.B. Here he refers to Meriggi, Gordon and Georgiev) – aus dem Vorgriechischen gedeutet werden, wenn man nämlich annimmt, dass *ku-ro* für **kuro* steht und auf **ku̯ro-* zurückgeht. Dies könnte dann einen Nebenform von **kupro-* sein (vgl. die Hesychglosse κύπρος = κεφάλαιον ἀριθμοῦ, mit einem im Vorgriechischen nicht ungebräuchlichen Wechsel von *p* und *u̯*. Ich lasse diese Deutung von *ku-ro* dahingestellt sein; Jedenfalls ist das dem Wort κύπρος zugrunde liegende vorindogermanische Element **kup-* (**kub-*), 'Kopf' für Kreta bezeugt, und zwar in aspirierter Form, vgl. κύφερον ἢ κυφήν· κεφαλήν. Κρῆτες (H)." [6]

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[1] Passages from *Minoan Linear A*, Vol I, Part I, 77, 84-86, on Linear A *ku-ro* are partly repeated in the first paragraphs of this appendix, since the discussion on *ku-ro* is closely connected with that on *po-to-ku-ro*. (N.B. Note 1 here is note 12 in the monograph, etc. The numbers of the pages are the same as in *Minoan Linear A*, Vol I, Part II.)

[2] P. Meriggi, *Primi Elementi di Minoico A* (Minos Suppl.), Salamanca 1956.

[3] C.H. Gordon, 'Notes on Minoan Linear A', *Antiquity 31 (1957)*, 120-130, and 'Akkadian tablets in Minoan dress', *Antiquity 31 (1957)*, 237-240.

[4] C.H. Gordon, *Evidence for the Minoan language*, Ventnor, N.J. 1966, 27, sub 117.

[5] P.G. van Soesbergen, *Minoan Linear A*, Vol. I: *Hurrians and Hurrian in Minoan Crete*, Part I, Amsterdam 2016, 77, 86; Part II, Amsterdam 2016, 741.

[6] E.J.Furnée, Die wichtigsten konsonantischen Erscheinungen des Vorgriechischen, The Hague, Paris 1972, 396.

However, there appears to be one flaw in Furnée's argumentation, since he does not explain how the phonetic development from *kuu̯ro-/*kupro- > kuro could have been completed in the much earlier Linear A form, whereas in the later form κύπρος in the gloss of Hesychius of Alexandria the /p/ or /w/ was still fully intact. [7]

Another etymology for Linear A ku-ro was presented by R. Gordesiani: "Ku-ro – 'Summe', einziges wort aus Linear A, dessen Lesung and Deutung wir, wie M. Pope bemerkt, für ganz sicher halten konnen. Vgl. georg. ḳr- 'sammeln', das in dem Verbalstamm ḳreb/ḳrib 'sammeln' (megr. ḳorob, tschan. ḳo(r)ob) bezeugt ist. Dieser Stamm geht seinerseits auf kartw. ḳar-/ ḳr- 'verbinden, verknüpfen, zusammenfügen' zurück." [8]

E. Peruzzi had previously argued in favour of an Indo-European connection. Accepting some of L.R. Palmer's suggestions with regard to a possible Luwian interpretation, he maintained that morphological evidence for noun declension, meagre though it was, might indicate Greek as the language of the texts. For the Linear A word for 'total' ku-ro, read with Linear B phonetic values, he proposed an Indo-European etymology *ger- 'collect' (cf. Greek ἀγείρω). For the word that was explained as 'deficit', Linear A ki-ro, he suggested an Indo-European root *(s)kel- 'due', 'owing' (cf. Lithuanian skeliu). Though the evidence was put forward in a comprehensive way, one must conclude that it is too thin. For further criticism of Peruzzi's proposals I may refer to M. Pope's *Aegean writing and Linear A* (SIMA 8), Lund 1964, 6.[9]

In *The historical significance of onomastic data from Linear A and B texts* (Mycenaean Seminar, Institute of Classical Studies, University of London, 28th May 1980, 4) I have explained that Hurrian kuru, which should phonologically be understood as /kuro/, not only provides the exact phonetic equivalent to the Linear A word, but could also be a likely candidate from a semantic point of view. It certainly is one of the most frequent terms in the Tušratta letter. [10]

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[7] P.G. van Soesbergen, *Minoan Linear A*, Vol. I: *Hurrians and Hurrian in Minoan Crete*, Part I, Amsterdam 2016, 77, 85.

[8] R. Gordesiani, 'Zu den kaukasisch-ägäischen Beziehungen im II. Jahrtausend v.u.Z.', *Actes du VIIe congrès de la F.I.E.C.*, *Vol.II*, Budapest 1983, 509.

[9] E. Peruzzi, *Le Iscrizioni Minoiche* (Atti dell' Accademia Toscana di Scienze e Lettere 24), Florence 1960, 32-128.

[10] Cf. F.W. Bush, *A grammar of the Hurrian language*, Brandeis University dissertation, University Microfilms Inc., Ann Arbor 1964, 239-240, sub 'particles exhibiting -u/-o stems'. Cf. E.A. Speiser, *Introduction to Hurrian*, Annual of the American Schools of Oriental research 20 (1940-1941), New Haven 1941, 71, 73, 87-88, 91, 183-184, 214.

The Hurrian word means 'again'. E. Laroche, *Glossaire de la langue hourrite*, 156, s.v. *guru* 'de nouveau, encore'. "Sens déduit des contextes par Messerschmidt, *Mit. St.*, 26; selon Speiser, *IH,* 71, 91, nom adverbialisé." He gives the examples: *gu-ru*, Mit. III 15, 39, 55, 93, etc. and *gu-ru-ú-we, ib.* IV 42, and *gu-ru-u-u*[, *ib.* I, 45.[11]

E.A. Speiser, *IH*, 91: "*kuru* 'again, in return': cf. Mit. III 15, 39, 55, etc. The approximate meaning of this adverbial concept has been known since the beginning of Hurrian studies. The word functions as an independent particle when it is not followed by suffixes. The adverbial connotation helps to explain nominal and verbal uses of the root in the sense of 'return'." Cf. also I.M. Diakonoff, *Hurrisch und Urartäisch,* Munich 1971, 147: *kuru/o* 'wieder', vgl. *kur-* 'zurückkehren'.[12]

Semantically the usage of Hurrian /*kuro*/ 'again, in return' can be explained from the mechanism of the scribe's action of counting the numbers just written on the Linear A tablets and recording them *again* in the summation at the bottom, in the sense of: (here are the numbers) *again*, that is in total. The scribes needed a short word that could serve their purpose as the Linear B scribes used *to-so* and *to-sa* meaning 'so much / many', which could in the context be perceived as 'so much / many in total'.[13]

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[11] E. Laroche, *Glossaire de la langue hourrite, Première partie* (A-L), *RHA 34 (1976),* Paris 1978 and E. Laroche, *Glossaire de la langue hourrite, deuxième partie* (M-Z, Index), *RHA 35 (1977),* Paris 1979 (reprint Paris 1980), 156.

[12] Cf. F.W. Bush, 'The relationship between the Hurrian suffixes *-ne/-na* and *-nni/e /-nna*', in: H.A. Hoffner Jr. (ed.), *Orient and Occident. Essays presented to Cyrus H. Gordon on the occasion of his sixty-fifth birthday* (AOAT 22), Kevelaer/Neukirchen-Vluyn 1973, 51[91]: 'furthermore'.
Cf. M. Dietrich – W. Mayer, Beiträge zum Hurritischen (I), *Ugarit Forschungen 23 (1991)*, 107-126 (especially 116): 'weiter'.
Cf. M. Dietrich – W. Mayer, Beiträge zum Hurritischen (II). Die Konjunctive in Mitanni-Hurritischen, *UF 24 (1992)*, 39-58 (especially 47): 'weiter'.
Cf. I. Wegner, *Einführung in die hurritische Sprache*, Wiesbaden 2000, 230.
Cf. I. Wegner, *Einführung in die hurritische Sprache,* Wiesbaden 2007[2], 264: 'wieder, wiederum, fernerhin'.
Cf. M. Giorgieri, Schizzo grammaticale della lingua hurrica, *Parola del Passato 55 (2000)*, 171-277 (especially 245): /*kuro/u*/ 'di nuovo, d'altra parte'.
Cf. G. Wilhelm, Die Absolutiv-Essiv-Konstruktion des Hurritischen, in: Y. Nishina (ed.), *Europa et Asia polyglotta – Sprachen und Kulturen* (Festschrift für Robert Schmitt-Brandt zum 70. Geburtstag), Dettelbach 2000, 199-208 (especially 201[6]).
Cf. D.R.M. Campbell, *Mood and modality in Hurrian*, Dissertation University of Chicago 2007, 35[48], 299, 314: *kur-o* 'again, subsequently'.
T. Richter, *Bibliographisches Glossar des Hurritischen*, Wiesbaden 2012, 227, s.v. *kur-* III and *kuru* [Mit.].

[13] Cf. P.G. van Soesbergen, *Minoan Linear A*, Volume I: *Hurrians and Hurrian in Minoan Crete*, Part I, Amsterdam 2016, 85; Part II, Amsterdam 2016, 741.

C.H. Gordon offered not only a West Semitic interpretation of Linear A *ku-ro*, but also of *po-to-ku-ro*: "HT 122 has a total of 31 (*ku-ro* 31) on the obverse, and another total of 65 (*ku-ro* 65) on the reverse. The two totals are combined to form *po-to-ku-ro* 96 'grandtotal: 96' (Plate VIII). The meaning 'grandtotal' is fixed by context, but it remains to explain the first element *po-to*. We know that the word for 'son' was pronounced *bun-* in Ugaritic. The feminine **bunt-* would become *butt-* (with *nt > tt*). Tentatively we suggest that *po-to-ku-ro* stands for what would appear in Hebrew script as בת כל 'daughter of all' = 'grandtotal'. 'Son' and 'daughter' are often used as the first element of compound nouns in Semitic." [14]

However ingenious, Gordon's interpretation of Linear A *po-to-ku-ro* as 'daughter of all' = 'grandtotal' does not appear convincing. So if Hurrian *kuru*, phonologically /*kuro*/, with Hurrian *o*-sound, is an exact phonological equivalent to Linear A *ku-ro*, it is necessary to examine whether *po-to-* may also be interpreted as Hurrian, in particular since it has been established that Hurrian cuneiform *ú* represents [*u*] and Hurrian cuneiform *u* represents [*o*]. In the Tušratta letter (so in fact in the chancellery of the Royal Palace of *Waššukkanni*, where the letter was written) the orthographic conventions were allegedly strictly applied, but elsewhere the scribes seem to have paid less attention to the rules. Anyway Hurrian [*o*] was probably a close sound.

E. Laroche did not yet attempt to interpret the form *pu-ud-du-ú-uk-ki-a-šu-u-un-na-a-al-la-an*, Mit. III 60.[15] It is important to realize that double writing of consonants in medial position in cuneiform indicates that a consonant is voiceless (so *-t-t-* or *-d-d-* is [*t*]), whereas single writing in medial position shows that a consonant is voiced (so *-t-* or *-d-* is [*d*]). During the last thirty years much progress has been made. Chr. Girbal interprets Hurrian *puttukki* [Mit.] as *puttu-* 'Leistung', mit *-kki*.[16] I. Wegner[17] and M. Salvini[18] mention 'achievement', M. Giorgieri[19] 'Wert(?)' (*puttū-kki*), I. Wegner[20] 'Leistung' in her *Introduction to the Hurrian language*.

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[14] C.H. Gordon, *Evidence for the Minoan language*, Ventnor, N.J. 1966, 27, sub 118.

[15] E. Laroche, *Glossaire de la langue hourrite, RHA 34-35 (1976-1977)*, Paris 1978-1979 (reprint 1980), 208, s.v. *pu-ud-du-ú-uk-ki-a-šu-u-un-na-a-al-la-an*, Mit. III 60.

[16] Chr. Girbal, Der Paragraph 24 des Mitanni-Briefes, *ZA 78 (1988)*, 130.

[17] I. Wegner, Suffixaufnahme in Hurrian: Normal cases and special cases, in: F. Plank (ed.), *Double case. Agreement by Suffixaufnahme*, New York – Oxford 1995, 140.

[18] M. Salvini, The earliest evidence of the Hurrians before the formation of the Reign of Mittanni, in: G. Buccellati – M. Kelly-Buccellati (ed.), *Urkesh and the Hurrians (Studies in honor of Lloyd Cotsen)*, Bibliotheca Mesopotamica 26, Malibu 1998,103.

[19] M. Giorgieri, Die Beschwörung der 8. Tafel des Šalašu-Rituals, *SCCNH 9 (1998)*, 76[13]

[20] I. Wegner, *Einführung in die hurritische Sprache*, Wiesbaden 2000, 240.
I. Wegner, *Einführung in die hurritische Sprache*, Wiesbaden 2007², 274.

T. Richter, who refers to these publications, also mentions a possible relation with the root *putt-* II, that might be interpreted as 'ausheben, anwerben.[21]

With regard to a feasible meaning of *po-to-* in Linear A *po-to-ku-ro* M. Giorgieri's interpretation of 'value' for Hurrian *puttu-* 'Wert(?)' in *puttū-kki* would yield the meaning 'value again' for *po-to-ku-ro*, which is in fact a concept that is expected in the context of the scribe's action of counting several items and giving the total results 'again' (first *ku-ro*) and 'again' (second *ku-ro*) and adding the two total numbers together providing 'the *value again*' (*po-to-ku-ro*) in the summation of the totals. The notion 'value' is emphasized by the high numbers of men and commodities mentioned on both HT 122 and HT 131. This means that the sequence *po-to-ku-ro* or the sequences *po-to ku-ro* (HT 122b.6 and HT 131b.4) on these accounting tablets from Hagia Triada does or do not mean 'grand total' as most modern scholars had expected, but simply refer(s) to *the scribe's action of counting the results*. Incidentally, even if the scribe wrote *po-to-ku-ro* as one sequence, *po-to-* should in my view not be taken as a prefix, because Hurrian is only suffixing, but as a term that was so firmly connected with the usage of *ku-ro* that the scribe joined the two terms in one notion. If Linear A *po-to-ku-ro* can be identified with Hurrian *puttu(-)kuru*, one thing is clear: Linear A *kuro* and Hurrian *kuru*, /*ku-ro*/, is not a loan word from another language, but a truly Hurrian adverb, when used without suffixes. Comparison with the related Hurrian verbal root *kur-* 'to return' and the parallels with Urartian leave no doubt about that.

A parallel example of bookkeeper's terminology is provided by the term 'sum', if used in the sense of 'total amount resulting from addition of items'. Through Middle English and Old French *summe, somme* it is derived from Latin *summa*, feminine of *summus*, 'highest, at the top'. The etymology of 'sum' can thus be explained from the bookkeeper's action of *placing the total amount* resulting from the addition of items *at the top of the page* instead of at the bottom. So the meaning of 'total amount' of the word 'sum' is secondary. The original meaning is 'at the top' and refers to the bookkeeper's action of putting the total number at the top where it can be seen at a glance. If Minoan scribes were not so much interested in using an abstract notion such as our word 'total', but rather focused on the action and result of counting, interpretation of Linear A *po-to-ku-ro* = Hurrian *puttu(-)kuru*, phonologically /*po-to ku-ro*/, 'value again' makes sense in the simple conditions of scribal workshops. If this interpretation is accepted, it is also a warning, how cautious one ought to be not to jump to conclusions too readily because of a seemingly obvious assumption. A. Kober's clever observation was only an indication with regard to the semantic sphere of the term *ku-ro* and should not have been taken too literally.

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[21] T. Richter, *Bibliographisches Glossar des Hurritischen*, Wiesbaden 2012, 334.

HT 122. HM 1366 (1912). Probably Late Minoan I b.
Probably from the Villagio (Village) of Hagia Triada.
Possibly from a house south of the 'Casa del Lebete'.
Same provenance as HT 115.

a. l.   ]ra-*ri* , *u-de-za* 2

2.   ] 2 *da-si-85* or: *da-si* TAL 2   *pa-*

3.   [.]-[.] [   ]-*di* 1   *te-ki* 2

4.   *qa-63-i* 3 *ja-mi-da-re* 1

5.   *si-da-re* 1 *so-di-ra* 1 *pa-de* 1

6.   *ku-pa₃-nu* 1 *pa-ta-ne* 1 *83a-tu* 1

7.   [.]-*du* 1 *ku-pa₃-nu* 1 *da-we-da* 1

8.   *ku-ro* 31 *ku-da* 1

b.1.   *je-di* , CAPSUS , VIR[

2.   *83a-ki-ta₂* 7 '[

3.   *a-ra-68* < , > *u-de-za* 2 *qa-qa-*

4.   *ru* 2 *di* 2 *da-re* 2

4bis.   vacat

5.   *ku-ro* 65

6.   *po-to-ku-ro* 96   [ ]

7.   vacat

W.C. Brice, *ILA*, 1961, Pl. XI/XIa.   ***GORILA 1*** (1976), XXVI and 206-209: HT 122.
J.Raison - M. Pope (1980), 104-105: HT 122. **L.C. Meijer** (1982), 22-23, 61-62.
GORILA 5 (1985), *Scribes*, 86. **J. Raison - M. Pope** (1994), 114-115: HT 122.

J. Raison-M. Pope 1971: scribe III; *GORILA 5*: scribe *9 HT*.
The top left corner of the tablet is missing. The preserved parts are broken into 4 pieces.

Ad a.2-3: Brice: *pa-i-to*; *GORILA,* Raison-Pope and Meijer: *pa*-[.]-[.] [.
Ad a.7:   Brice: *ja-du*; *GORILA* Raison-Pope and Meijer: [ ]-*du*.
Ad a.7:   Brice and *GORILA* (in analysis): *da-ri-da*; *GORILA* (in transcription), Raison-Pope
          and Meijer: *da-we-da*. The middle sign has no dot and is to be considered -*we*-.
Ad b.1:   Sign *L11* looks like Linear B sign *242* = CAPSUS = the wagon-body of a chariot or
          of a wagon. Cf. sign *35* = (another form of) a chariot-body, often combined with *87*.
Ad b.3:   Brice: *a-ra-96*; *GORILA*, Raison-Pope and Meijer: *a-ra-68*. < , > may be postulated
          between *a-ra-68* and *u-de-za* on the analogy of]*ra-ri* , *u-de-za* in line a.1.

HT 122. Analysed structure of the text.

a. l.	]*ra-ri* , *u-de-za*	<u>2</u>
2.		] 2
2.	*da-si-85* or: *da-si* TAL	2
2-3.	*pa-* [.]-[.] [	
3.	]-*di*	1
3.	*te-ki*	2
4.	*qa-63-i*	3
4.	*ja-mi-da-re*	1
5.	*si-da-re*	1
5.	*so-di-ra*	1
5.	*pa-de*	1
6.	*ku-pa₃-nu*	1
6.	*pa-ta-ne*	1
6.	*83a-tu*	1
7.	[.]-*du*	1
7.	*ku-pa₃-nu*	1
7.	*da-we-da*	1
8.	*ku-ro*	31
8.	*ku-da*	1
b.1.	*je-di* , CAPSUS , <u>VIR</u>[	
2.	*83a-ki-ta₂*	7 ' [
3.	*a-ra-68* < , > *u-de-za*	2
3-4.	*qa-qa-ru*	2
4.	*di*	2
4.	*da-re*	2
4bis.	vacat	
5.	*ku-ro*	65
6.	*po-to-ku-ro*	96 [ ]
7.	vacat	

Cf. also *po-to-ku-ro* on HT 131b.4. Interpretation of *L11* as CAPSUS (wagon-body of a chariot) has significant implications for the character of Minoan society, since the royal palaces probably offered residence to charioteers' aristocracies as the Hittite, Mitannian, Babylonian, Syrian, Egyptian (since the Hyksos period) and Mycenaean societies. Cf. also the commentary on the tablets from Hagia Triada and roundels from Khania with sign *L35* that is likely to represent the wagon-body of the chariot as well.

HT 131. HM 1372 (1912). Probably Late Minoan I b.
Probably from the Villagio (Village) of Hagia Triada.
Possibly from a house south of the 'Casa del Lebete'.
Same provenance as HT 115.

Sup. mut.

a. l.   FIC 6<u>2</u> <u>ku</u>[-*ro*

2.   353 *i-qa*

3.   TAL GRA 58

4.   ] OLE 12 J *67* 12 JE

Sup. mut.

b.1.   ] ' ' [

2.   ] FIC 40 [   ]

3.   [   ] OLIVA 2 VIN<u>+sa</u> [   ]

4.   *po-to-ku-ro* 400[

5.   52 J [

W.C. Brice, *ILA*, 1961, P1. XII/XIIa.   *GORILA 1* (1976), XXVII and 226-227: HT 131.
J.Raison - M. Pope (1980), 111-112: HT 131. **L.C. Meijer** (1982), 24, 125.
GORILA 5 (1985), *Scribes*, 86.   **J. Raison - M. Pope** (1994), 120-121: HT 131: Face *a*
détériorée à gauche postérieurement à *MA XL*, pl. XVIII**.**

Only the lower right corner of the tablet is preserved. Most of the surface is palimpsest.
Brice and Meijer only read the *a*-side of this tablet. The scribe was probably not accustomed to
drinking too much wine as he was truly not able to write in straight lines on both sides.

Ad a.1: Brice: FIC 51 *ku*-[; *GORILA*: FIC 6<u>2</u> *ku*-[; Raison-Pope: FIC 62 *ku*[-*ro*; Meijer:]‖[ ].
        Raison-Pope's addition of -*ro* to <u>ku</u>[is an excellent conjecture in view of <u>ku</u>[-*ro* 353.
Ad a.2: Raison-Pope: *i-qa-* sur [[ ]].
Ad a.2-3: All editors treat *i-qa-85* as if it is one sequence, but there is no reason why sign *85*,
        the TALENTUM ideogram, cannot be combined with the GRANUM ideogram.
Ad a.4: *GORILA*: JE: partie droite de E sur *lat. dex*.
Ad b.2: Raison-Pope: 40 sur [[ ]].
Ad b.4-5: *GORILA* and Raison-Pope: *po-to-ku-ro* 452 J.   Raison-Pope: -*ku-ro* sur [[ ]].

HT 131.   Analysed structure of the text.

Sup. mut.

a. l.			FIC	6<u>2</u>	
1-2.	*ku*[-*ro*			353	
2-3.	*i-qa*	TAL	GRA	58	
4.			] OLE	12	J
4.			*67*	12	JE

Sup. mut.

b.1.		] ' ' [			
2.			] FIC	40 [ ]	
3.	[ ]		OLIVA	2	
3.			VIN+*sa* [ ]		
4-5.	*po-to-ku-ro*			452	J [[

If the total of 452 is the sum of the numbers on both sides, the number is too low. So we must postulate either another illegible hundred in the damaged lower right corner of the *b*-side or *po-to-ku-ro* only counts the numbers of the incomplete *b*-side.
I consider the first option preferable.
Cf. also *po-to-ku-ro* on HT 122b.6.