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NON-ONOMASTIC ELEMENTS IN LINEAR A

1. Introduction

In previous works I have tried to identify some possible toponyms in Minoan texts¹ and I have given evidence to the problem of the reading of the Linear A². With the present contribution I intend to collect the Minoan words, which, certainly or probably, do not have an onomastic nature: that is the vocabulary-words.

We must underline the small number of vocabulary-words, which we can obtain through an analysis of all the Linear A texts; in fact the tablets of the Minoan archives above all contain lists of toponyms or anthroponyms and only the short and often repetitive *autres documents*³ can offer a larger number of non-onomastic elements.

In this article I shall write the 'confirmed' and quasi-'confirmed' syllabograms⁴ in bold face⁵.

2. Archive texts

2.1. Isolated (or quasi-isolated) words.

We start our research by considering a certain number of words which, even if they occur mostly as isolated words, can be identified

¹ G. M. Facchetti, Comparable name-lists in Linear A, *Kadmos* 35, 1996, p. 100 ff.

² G. M. Facchetti, Statistical data and morphematic elements in Linear A, *Kadmos* 38, 1999, p. 1 ff.

³ Published (up to 1985) in GORILA 4 and 5. For the subsequent discoveries see the references in G. A. Owens, Record of inscriptions in Linear A (1985–1995), *Kritika Daidalika*, Studies Hooker, 1997, pp. 237–243.

⁴ They are: a, da, i, ja, ke, ki, pa, pi, ri, ro, se, si, su, ta, te, to ('confirmed') and ka, ko, o, ra, re, ti, u, wa (quasi-'confirmed'). See G. M. Facchetti, Statistical data, cit., p. 4 and p. 9, § 5.1

⁵ I must underline that I do not agree with GORILA 5 (p. XXII) about the sign A301. In effect I am persuaded that it would have to be classified as AB36 ('jo'); cf., e.g., Y. Duhoux, *Études minoennes. Le linéaire A*, Louvain 1978, p. 40. Furthermore I shall transcribe the signs A 56, 22f, 29, respectively, 'ba', 'bi', 'bu' instead of 'pa₂', ('pi₂'), 'pu₂'; cf. K. T. Witczak, A b-series in Linear B, *Kadmos* 32, 1993, p. 162 ff.

as non-onomastic elements, on the ground of their particular positions in the contexts of the archive documents.

Between brackets I suggest a possible interpretation for many of these words, with regard to their use in the respective contexts.

- a-du (non-onomastic term) (*passim*)
- a-ka-ru (non-onomastic term?) (HT 2; HT 86)
- a-ru-ra-[ta] (concerning wheels or chariots?⁶) (HT 11)
- a-sa-su-ma-i-[se] (concerning oxen) (GO Wc 1)
- ba+qe (kind of food) (HT 33)
- da-i (kind of food) (HT 23)
- da-ro-pa (concerning pots) (HT 38)
- di-na-u (commodity? in HT 16; but toponym or anthroponym in HT 25a)
- du-123-a (concerning wheat) (HT 15)
- e+ka (kind of food) (HT 33; HT 34)
- i-mi-sa-ra (qualification of some people) (HT 27)
- ja+ka ('wool'-equivalent) (HT 24)
- ja+ru (kind of food, figs-equivalent?⁷) (HT 6a)
- ka+a (commodity) (HT 38)
- ka-pa-qe (kind of food, figs-equivalent?⁸) (HT 6a)
- ka-ro-ba (concerning pots) (HT 31)
- ka-ro-na (concerning wheels or chariots?⁹) (HT 11)
- ki-da-[] (qualification of some people) (HT 27)
- ki-de-ma-323-na (concerning pots) (HT 31)
- ki-ki-na (concerning figs) (HT 88)
- ki-ki-ra-ja (qualification of some people?) (HT 85b)
- ki-ro ('supervisor'? and 'more'?¹⁰) (*passim*)

⁶ For HT 11 cf. GORILA 1, p. 23; E. Peruzzi, Note minoiche, *Minos* 6, 1958, p. 13 ff. and also C. Milani, Contributo all'interpretazione del lessico minoico, *Kadmos* 3, 1964, pp. 12-15, with due reserve about her attempts of etymological interpretations. I have excluded the middle section of the difficult tablet (that is the two words a-su-ja and 100-i, because the latter occurs too on HT 93a, in a context of terms of onomastical nature). All the other syllabic groups of HT 11 are *hapax legomena*.

⁷ The scheme of the tablet is not easily rationalizable; cf. E. Peruzzi, Appunti sull'iscrizione HT 6a, *Minos* 8, 1963, p. 7 ff.; D. A. Was, Some reflections on the suggestive tablet H 6, *Minos* 13, 1973, p. 7 ff. and the normalized edition of GORILA 1, p. 13.

⁸ Cf. ja+ru.

⁹ Cf. a-ru-ra-[ta].

¹⁰ Cf. Lat. *magis* / *magis-ter*? See, e.g., the contexts of HT 88 and HT 123; see too D. A. Was, The land-tenure texts from Hagia Triada, *Kadmos* 20, 1981, p. 22.

ki-310 . ku-305 (qualification of some people) (HT 27)
 ko-ru (kind of food or spice) (HT 23)
 ku-ma-65 (commodity?) (HT 20)
 ku-mi-na-qe (concerning goats?) (HT Wc 3014)
 ku-ro ('total'¹¹) (*passim*)
 ma-i-mi (qualification of some people) (HT 89)
 ma-ka-ri-te (qualification of some people?) (HT 87; HT 117)
 ma+ru ('wool'?¹²) (HT 12; HT 24)
 ma-321 (kind of food, figs-equivalent?¹³) (HT 6a)
 mu+ki (qualification of some people) (HT 127b)
 o-ra₂-di-ne (kind of food, figs-equivalent?¹⁴) (HT 6a)
 pa-se (followed by a registration of wine rations) (HT 27)
 pa-si-a (kind of food) (HT 45)
 pa-ta-qe (concerning pots) (HT 31)
 pi-ta-ja (kind of food, figs-equivalent?¹⁵) (HT 6a)
 po-to-ku-ro ('grand total'¹⁶) (HT 122; HT 131)
 pu-ko (concerning pots) (HT 31)
 qa-ba (concerning pots) (HT 31)
 qa+[.]+'pu-re'¹⁷ (kind of food) (HT 23)
 qe-pi-ta (kind of food, figs-equivalent?¹⁸) (HT 6a)
 qi-ri-tu-qa (kind of food or spice) (HT 23)
 ru-ra₂ (concerning wheels or chariots?¹⁹) (HT 11)
 ru-79-na (concerning wheels²⁰) (HT 11)

¹¹ For this important word we may remember the attempts at etymological comparison with Semitic *kull*- 'all' (cf. C. H. Gordon, Evidence for the Minoan language, Ventnor 1966, p. 27) and Gr. γυρός 'round' (i.e. in the sense of 'round figure' *vel similia*; cf. V. Georgiev, Les deux langues des inscriptions crétoises en linéaire A, Sofia, 1963, p. 49). The Greek (or rather *substratum*?, but cf. J. Pokorny, Indogermanisches etymologisches Wörterbuch, p. 397 f.) word could reveal suggestive connections with Sumerian *gúr* 'sphere, circle' and (for its use as 'total') with Etruscan *χuru*- (also occurring as *χuru*), probably 'complete' (cf., e.g., M. Durante, Fenicio *šnt šlš*, etrusco *ci avil* nei testi di Pyrgi, La parola del passato 23, 1968, p. 277 f.; M. Cristofani *et alii*, Gli Etruschi. Una nuova immagine, Firenze 1984, p. 126).

¹² Cf. the sign B145 'LANA' and (pre-)Gr. μᾶλλός; on which word see, recently, M. Negri, Κρητικά γράμματα, Minos 29–30, 1994–1995, p. 89.

¹³ Cf. ja+ru.

¹⁴ Cf. ja+ru.

¹⁵ Cf. ja+ru.

¹⁶ Cf. ku-ro.

¹⁷ Cf. A508 (qa+[?]+re); A509 (qa+[?]+re+pu), A510 (qa+[?]+pu); all these composite signs indicate a kind of food.

¹⁸ Cf. ja+ru.

¹⁹ Cf. a-ru-ra-[ta].

²⁰ Cf. a-ru-ra-[ta].

sa-ja-ma (concerning pots) (HT 31)
 sa+mu+ku (kind of food) (HT 34)
 sa-qe-ri (concerning wheels²¹) (HT 11)
 sa-ra₂ (non-onomastic term? concerning rations?) (*passim*)
 sa-ra-di (qualification of some people) (HT 27)
 sa-ra-ra (kind of food) (HT 30)
 sa-re-65 (commodity?) (HT 20)
 sa-sa-me ('sesame'²²) (HT 23)
 si+me (kind of food or spice) (HT 23)
 si+me+ki ('wool'-equivalent) (HT 24)
 si-ni (kind of seamen?) (HT 140)
 si-re (concerning pigs²³) (HT (?) 31)
 si-118-ka (kind of seamen?) (HT 140)
 si-[-]-ne-ti (non-onomastic term?) (PK 1)
 su-ba-ra (concerning pots) (HT 31)
 su-re (kind of food) (HT 32)
 ta-ra (qualification of some people) (HT 89)
 ti+a (qualification of some people) (HT 94a; HT 100)
 wi-te-ro . i-ti (qualification of some people) (HT 25)
 65+317+qe (qualification of some people) (HT 89)
 318-306 (qualification of some people?) (HT 94)
 322-ri (concerning wheels or chariots?²⁴) (HT 11)
 [-]-de-ba (concerning wheels or chariots?²⁵) (HT 11)
 [-]-mi-da (followed by a registration of wine rations) (HT 27)

2.2. Headings and other short sentences.

Now we shall examine the main headings of the tablets and other remarkable short 'sentences' which can be found on archive documents. For a better 'understanding' we have sometimes transcribed the entire text of some of these documents.

HT 6a (heading): ka-pa . da-ta-ra²⁶ . te . (then a list of lots of figs [and of other sorts of fruits?])

²¹ Cf. a-ru-ra-[ta].

²² Cf. Myc. *sa-sa-ma*; see A. Furumark, *Linear A und die altkretische Sprache*, Berlin 1956, p. 27.

²³ Cf. W. C. Brice, *Notes on Linear A, III*, *Kadmos* 27, 1988, p. 158. In my opinion a connection with (pre-)Gr. σιάλος (cf. Myc. *si-ha-ro* σιθάρον) is very improbable.

²⁴ Cf. a-ru-ra-[ta].

²⁵ Followed by ru-ra₂; cf. a-ru-ra-[ta].

²⁶ da-ta-ra could be the generic name of a kind of food ('fruits?'); cf. also the heading of HT 13: ka-u-de-ta . VIN . te.

- HT 28b: a-si-ja-ka . u-mi-na-si²⁷ . sa-ra₂ GRA 20 OLE+di 5 FIC 2
VIN 4 pu-ra FIC 6 ja-qi VIN 6 wi-di-na OLE+di 3 VIN 3
- HT 30: si . 4 . sa-ra₂ (then a list of groceries) ki-ro (then a list of groceries)
- HT 31 (heading): i-ti-sa . pu-ko (then a list of pots)
- HT 32 (heading): A307 . sa-ra₂ (then a list of groceries)
- HT 34 (heading): da-65-te . si-i²⁸ . sa-ra₂ (then a list of groceries)
- HT 35 (heading): ti-ti-ku . A326 . i-ku-ta (then a list of groceries)
- HT 41 (final section): A305 . HORD 10 re HORD 10 mi-da-ni . pa-ja 2 DD
- HT 43: ma-si-du . pa-342-i . i . GRA+pa 5 [
- HT 87 (heading): qi-tu-ne²⁹ . ma-ka-ri-te³⁰ (then a list of anthroponyms)
- HT 88: a-du VIR+ka 20 re-za³¹ 6 FIC ki-ki-na 9 / ki-ro . ku-ba-nu 1 ka-65 1 ku-ba-nu 1 pa-ja-re 1 sa-ma-ro 1 da-ta-re 1 ku-ro 6³²
- HT 89 (heading): a-sa-ra₂ . A307 (then a list of men [workers?] with their rations)
- HT 90: i-ku-ri-na sa-ra₂ (then a list of groceries) si-ru-ma-ri-ta₂ (then a list of groceries)
- HT 96a: i-ti-ti-ku-ni . a-pa-ra-ne . a-123-te . si-mi-ta GRA 5 ru-sa 4 A323 . A317 1 pi-ta-ra 1 A323 A344 1 / [..] ku-ma-ro . te FIC 2 [] FIC 2
- HT 96b: a-pa-ra-ne . qa-118-ra-re . i . (then a list of groceries)
- HT 99a (heading): a-du . sa-ra₂ (then a list of groceries)
- HT 102: ka-pa sa-ra₂ . GRA 976 ba-ni GRA+pa 33 [.] VIR+GRA+pa 33 di-ri-na 10 ma-79 3 wi 10 i-ka 5 ku-ro 1060
- HT 104: ta-pa . te+ro . da-ku-se-ne-ti³³ 45 J i-du-ti 20 [J] pa-da-su-ti 29 ku-ro 95

²⁷ The same term occurs also in the heading of HT 117a, before a list of anthroponyms.

²⁸ Maybe a reading 'si . i' is preferable.

²⁹ The same term occurs also on HT 117b, similarly before a list of anthroponyms. It seems to be a toponym on HT 7 (where it is listed together with the probable place-names da-re and te-tu: cf. G. M. Facchetti, *Comparable name-lists*, cit., p. 102). On HT 94 the anthroponym 'qe-tu-[' (a ki-ro man) is readable.

³⁰ The same term occurs also in the heading of HT 117a, similarly before a list of anthroponyms.

³¹ Quite certain toponym in HT 13; cf. G. M. Facchetti, *Comparable name-lists*, cit., p. 101 f.

³² The second section of this tablet is clearly a list of six ki-ro men.

³³ da-ku-se-ne is readable on HT 103; the ending -ti (cf. too i-du-ti and pa-da-su-ti in the same text HT 104) has already been identified as a secure morphematic element of the Minoan language (see G. M. Facchetti, *Statistical data*, cit., p. 10 f.); see also KN 1.

- HT 105 (final section): sa-ra₂ . VIR 235
 HT 109 (final section): ku-ro 129 a-ra-65 123
 HT 114: ki-ri-ta₂ . sa-ra₂ (then a list of groceries)
 HT 117 ma-ka-ri-te³⁴ . ki-ro . u-mi-na-si³⁵ (then a list of ten anthroponyms) ku-ro 10 / sa-ta (then a list of five anthroponyms) qi-tu-ne³⁶ (then a list of two anthroponyms).
 HT 118: A326 . pa-ra . tu-ru-nu-se-me GRA+[.] 10 wa-ti-ma-re GRA+ku 10 (then the fragmentary remains of the following wheat entries)
 KH 5: a-da-ki-si-ka . a-ra-u-da . wi-sa-sa-ne MIL+E 2 VIN+wi 2 wi-na-du . 301-na . ku-pa-79 MIL+[.] 3 A FIC 2 JB
 KH 7a (final section)³⁷: e-na-si VIR 10 MIL+D J i-ja-pa-me . ta-ta . qa-ti-ki VIR 4 MIL+D B se-305 . ku-[.] -ko-e VIR 18 [] MIL+D 1 JEL² 'x' [.] BL⁶
 KH 10 (final section): i-pa-sa-ja . qa-118 . a-ki-pi-e-te GRA 90
 KN 1³⁸: ja-ku-ti e³⁹ 240 ja-du-ra-ti e 105
 MA 1: i-du-wi . A47 . qe-de-mi-nu / a-ma . A47 . qe-de-mi-nu / ti
 PK 1⁴⁰: si-[.] -ne-ti . ka-qa 2 a-du-za 1 ta₂-ta-re 1 ta₂-ti-te 1 o-ka-mi-za-si-i-na 1 o-te-ja 1 ra-na-tu-su 1 [bu]-mi 1 tu-su 1 ma-ti-za-i-te 1 ma-te-ti 1 ma-ka-i-ta 1
 PH 6⁴¹: i-na-wa . a-ri / i-79-ri-ni-ta / a-ri / i-da-ba-i-sa-ri
 ZA 10a⁴²: ta-na-te 2 [pa] 1 a-ku-mi-na 1 a-ta-na-te 1 a-mi-da-u 1 a-du-ku-mi-na 1 da-i-pi-ta 1 du-re-za-se 2
 ZA 11b (heading): e-to-ri . A516 . sa-301-ri GRA 1

³⁴ See HT 87.

³⁵ See HT 28b.

³⁶ See HT 87.

³⁷ Cf. G. M. Facchetti, *Linear A metrograms*, *Kadmos* 33, 1994, p. 147.

³⁸ For the ending -ti cf. HT 104; for ja-ku / ja-ku-ti see G. M. Facchetti, *Statistical data*, cit., p. 10, § 6.4.

³⁹ Without doubt 'e' represents a kind of food; cf., for instance, HT 23 and HT 91.

⁴⁰ The lines of writing of this page-shaped tablet are divided by horizontal strokes, as in Linear B; the ordered list (of place-names? or anthroponyms?) seems to reveal traces of a 'syllabic classification'; see Y. Duhoux, *Classement syllabique chez les scribes linéaires A et B*, *Kadmos* 35, 1996, p. 115; cf. also G. Owens, *The linear A tablet from Palaikastro*, *Kadmos* 32, 1993, p. 175 f.

⁴¹ Very probably this tablet, found in a little pot, has no archival content.

⁴² Here we can clearly recognize the well-known prefix a- (ta-na-te / a-ta-na-te; cf. G. M. Facchetti, *Statistical data*, cit., p. 11) and, perhaps, a suffix -se (du-re-za on KH 20; a-du-[re]-za on KH 11 and du-re-za-se here; see also di-di-ko [ZA 11] / di-di-ka-se [ZA Zb 3]). Instead I must reconsider the case of [ri]-ru-ma-ti / ru-ma-ta-se quoted in my *Comparable name-lists*, cit., p. 103: in fact, in the light of ri-ru-ma / [ri]-ru-ma-ti (G. M. Facchetti, *Statistical data*, cit., p. 10, § 6.4), the above-mentioned correlation appears to be wrong.

ZA 14: me-ki-di . qi-118 . pu-ni-ka-363 3 qa-ti-65 8 ku-pi 1 tu-mi-
 ti-za-se 45 pa-nu-qe 2 ja-wi []
 GO Wc 1: a-sa-su-ma-i-[se] / BOS^m 5
 HT Wa 1019: pa-ta-ne / si-tu⁴³
 HT Wa 1020: 304+pa ku-pa / E / [46]-ta-na
 HT Wc 3004-3005: ta-ni-ka / se
 HT Wc 3006: wa-o-mi / ra-bu⁴⁴-ra
 HT Wc 3008: wa-di-ni⁴⁵ / ru-ja-ta-di
 HT Wc 3009: 533-di-su-ka / A188
 HT Wc 3010: 533-di-na-su-ka
 HT Wc 3012: 79-di-ra / re-ro
 HT Wc 3014: ku-mi-na⁴⁶ / qe . CAP
 HT Wc 3017: qa-ku-re . di-306 / MIL+D 304+pa
 KH Wa 1001-1002: a+ki / da+ro
 KN Wb 33: qa-ki [/ nu-se []
 KN (?) Wc 26: ru-ja / [79]-pi
 PH Wc 37: ka-bu⁴⁷-si / A320
 PH Wc 39: ja-di / ro
 PH Wc 40: 320-320-ma / ro
 ZA Wc 2⁴⁸: a-ti-ka a-du(-)ko 2

3. Other sorts of documents

3.1. Inscriptions on various supports.

We start the review of the *autres documents* with the group of the main texts which, since they are not inscribed on libation tables, do not concern libation formulae.

HT Zb 158 (*pithos*):] [.] -tu-se-su-ki / su-ki-ri-te-i-ja⁴⁹

KN Zb 40 (*jarre pithoïde*): a-pa-ki / u-na-a

PH Zb 4 (*fragm. de pithos*): si-ma / i-ja-te

⁴³ Cf. Gr. οἶτος (Myc. *si-to- oïto-*)?

⁴⁴ For the reading 'bu' of A314 see below § 3.2.3.

⁴⁵ On HT Wc 3007 we find written only this word.

⁴⁶ Cf. Myc. *ku-mi-no* κῦμνον (Accad. *kamunu*)? The presence of A22 (which has to be considered a logogram [CAP] rather than a phonogram ['bi']) does not support this hypothesis; furthermore the complete Minoan form is ku-mi-na-qe; see E. Peruzzi, *Note minoiche*, cit., p. 13.

⁴⁷ For the reading 'bu' of A314 see below § 3.2.3.

⁴⁸ Cf. M. Perna, *The roundel in Linear A from Zakros Wc 2* (HM 84), *Kadmos* 33, 1994, p. 31 ff.; G. M. Facchetti, *Statistical data*, cit., p. 3, note 13.

⁴⁹ Cf. G. M. Facchetti, *Comparable name-lists*, cit., p. 100, note 2; id., *Statistical data*, cit., p. 11.

- ZA Zb 3 (*pithos*): VIN 32 di-di-ka-se⁵⁰ . a-sa-mu-ne . a-se / a-ta-i-jo51-de-ka . a-re-pi-re-na . ti-ti-ku
 KN Zc 6 (*tasse*): 34-ti-ri / a-di-da-ki-ti-pa-ku . ni-ja-nu . 65-ku-na-pa-ku-nu-[-i]-79 .
 KN Zc 7 (*tasse*): a-ka-nu-[za]-ti⁵² . du-ra-re . a-79-ra . ja-sa-ra-a-na-ne . wi-pi-[-.]
 HT Zd 155 (*stuc*): a-65 . na-ma-ma-ti-ti-319⁵³
 CR (?) Zf 1 (*épingle en or*): a-ma-wa-si . ka-ni-ja-mi . i-ja . [qa]-ki-se-nu-ti . a-ta-de
 KN Zf 13 (*bague en or*): a-re-ne-si-di-jo-pi-ke-pa-ja-ta-ri-se-te-ri-mu-a-ja-ku
 KN Zf 31 (*épingle en argent*):] si [...] si-za-ne-310 . da-du-mi-ne . qa-mi-47-na-ra . a-wa-pi . te-su-de-[se]-ke-i . a-da-ra . ti-di-te-qa-ti . ta-sa-za . ta-te-i-ke-za-re . [
 KO (?) Zf 2 (*bol en bronze*): a-ra-ko-ku-qa-wa-sa-to-ma-ro-au-ta-de-po-ni-za
 PL Zf 1 (*épingle en argent*):]-ta . wi-te-ja-mu . u-qe-ti . ja-sa-sa-ra-me⁵⁴ . ta-nu-ni-ki-na . ni-nu-ni . ma-i-[-.]
 PO Zg 1 (*statuette*): [ri]-qe-ti a-sa-sa-ra-[me]⁵⁵

⁵⁰ For di-di-ko(-ra-me-ta2) (ZA 11) / di-di-ka-se (ZA Zb 3) see above, note 42; cf. also di-di-[-] (ZA 26): is it the ancient Minoan name of Kato Zakros?

⁵¹ We find the stem a-ta-i-jo- also employed in the usual libation formula (first section): see below § 3.2.1.

⁵² Apart from the prefix a- (see above, note 42), could 'ka-nu-za-' on KN Zc 7 conceal the Minoan name of Knossos (Myc. *ko-no-so*)? Could the well-known suffix -ti (above, note 33) be the Minoan locative ending? (Cf. the Ie. suffix *-dhi [Gr. πόθι, etc.; cf., for example, V. Pisani, *Glottologia indoeuropea*, Torino 1962, p. 158, n. 2], but also Etruscan loc. -θi / -ti. [see M. Pallottino, *Etruscologia*, Milano 1992, p. 473 f.]; it would be possible to find parallels even in other linguistic families.)

⁵³ Cf. HT Zd 157 (*stuc*): wi-ja-su-ma-ti-ti-319. So '-ma-ti-ti-319' can be a separable element.

⁵⁴ This term is also employed in the usual libation formula (first section), where it would indicate a kind of sacred boon or homage: see below § 3.2.1.

⁵⁵ Published in N. Dimopoulou – J. P. Olivier – G. Réthémotakis, *Une statuette en argile avec inscription en linéaire A de Poros/Irakliou*, BCH 117, 1993, pp. 501–521. This important document is the latest example of Linear A found up to now (LM III A). For the last sign the publishers suggest a possible reading 'A325', which I have demonstrated to be isoconsonantal, a doublet ('de₂') or a graphic alteration of A45 'de' (G. M. Facchetti, *Comparable name-lists*, cit., p. 103). But, if we consider the late period and the evident lack of skill of the scribe (see, e.g., the very anomalous *ductus* of A53 [?] and A08), we may identify it as a strange variant (a simplification) of A13 ('me') and read the usual 'a-sa-sa-ra-me' (furthermore the last sign of PO Zg 1, unlike A325, has a point inside). The probable meaning of (j)a-sa-sa-ra-me ('sacred boon or homage') will be fully discussed be-

ZA Zg 35 (*baguette en os*)⁵⁶:] [me]-mi-ja-ru . se-wa-au-de

3.2. Libation formulae.

Another important group of texts, mostly inscribed on libation tables, offers us the opportunity of a reconstruction of the Minoan 'libation formulae'. A comparative analysis of these texts can be observed on the adjoining synopsis.

In fact from this comparison we obtain remarkable results.

3.2.1. Basic usual formula.

First section:

a-ta-i-jo-wa-ja name(s) of dedicating(s) (j)a-sa-sa-ra-me

variants:

a-ta-i-jo-wa-e

ja-ta-i-jo-u-ja

a-ta-i-jo

Second section:

u-na-ka-na-si . i-pi-na-ma . si-ru-te

variants:

u-na-ru-ka-na-si / i-pi-na-mi-na / si-ru-[du]

u-na-ru-ka-na-ja-si

u-na-ru-ka-na-ti⁵⁷

The group a-ta-i-jo- is also written on the pithos ZA Zb 3; the ending (-wa)-ja can certainly be connected with the widely used morpheme -ja⁵⁸: thus, considering too its pre-eminent position, a-ta-i-jo-

low (§ 3.2.1). We can also observe the strange resemblance of 'u-qe-ti . ja-sa-sa-ra-me' (an expression extracted from PL Zf 1) and '[ri]-qe-ti . a-sa-sa-ra-me' (the complete text of PO Zg 1): are we in presence of the same suffix -ti? Should we read [u]-qe-ti also on PO Zg 1? Yet it is possible that [ri]-qe-ti is a simple anthroponym.

⁵⁶ Published in K. Kopaka, Une nouvelle inscription en linéaire A de Zakros, *Kadmos* 28, 1989, pp. 7-13.

⁵⁷ Since this form occurs only in PK Za 11, we might consider it as a simple scribal lapsus, rather than a case of flexion -si / -ti (nevertheless we must observe that u-na-ru-ka-na-ti on PK Za 11 is coupled with the equally unusual form i-pi-na-mi-na [both *hapax legomena*]). Thus I should have to revise the opinion expressed in Statistical data, cit., p. 10 § 6.4. Anyway many other elements support the morphematic nature of -ti.

⁵⁸ Cf. G. M. Facchetti, Statistical data, cit., p. 10 § 6.2. Does it indicate a kind of 'genitive' or 'dative'?

(wa-) could indicate the addressee of the dedication⁵⁹; (j)a-sa-sa-ra-me⁶⁰ would be the name of a kind of offering, probably a generic name for 'sacred boon or homage'⁶¹.

It seems to me that the second section could have a parallel structure: u-na-ka-na- would be the name of a second deity⁶²; -si⁶³ would be an allomorph of -ja and i-pi-na-ma (with si-ru-te?) would express the name of another kind of gift.

In my opinion all these hypothesis get a very strong support from the simple scheme of a completely preserved document: SY Za 2.

This text confirms the suggested meaning of (j)a-sa-sa-ra-me and i-pi-na-ma: here in fact these expressions are replaced respectively by the logograms OLIVAE and OLEUM. Instead the 'divine names' are, as usual, transcribed.

SY Za 2 (*table à libations*)

a-ta-i-jo-wa-ja . ja-su-ma-tu⁶⁴ OLIV . u-na-ka-na-si OLE

"to A-ta-i-jo-wa- Ja-su-ma-tu (offers) some olives; to U-na-ka-na- (he offers) some oil"⁶⁵.

⁵⁹ If so, it obviously indicates a deity. I imagine a possible connection with Ie. *atos / *atta 'Lallwort, Vater, Mutter' (J. Pokorny, Idg. etym. Wb., cit., s.v.); but cf. also Etruscan *ati* / *atiu* 'mother' (M. Pallottino, Etruscologia, cit., p. 506), Old Finnic *eitei* 'idem', Tamil *attei* 'idem', etc.

⁶⁰ This word is also written on the silver pin PL Zf 1 and painted on PO Zg 1 (see above § 3.1).

⁶¹ See above the text of PO Zg 1 (§ 3.1) and note 55.

⁶² Or another appellative of the same deity. Is it somehow linked with the name of Cretan Zeus, *Welkhanos*? The variant form u-na-ru-ka-na- could suggest an alternative reading [unalkhana-] / [unalukhana-].

⁶³ Known only in connection with the doubtful alternance a-ma-wa-si / ja-ma-u-ti (cf. G. M. Facchetti, Statistical data, cit., p. 10 § 6.4); see also above, note 57.

⁶⁴ Could '-su-ma-' hide the Minoan name of Σύμη, the place where this table was found? Could ja-su-ma-tu be a derivative with prefix (j)a- (above, note 42)? In fact Σύμη seems to be an ancient name: cf. P. Faure, *Toponymes préhelléniques dans la Crète moderne*, Kadmos 6, 1967, p. 71, s.v. We could make a comparison with (j)a-di-ki-te-te- (if it really contains a Minoan form of the sacred place-name [dikt-]; cf. below, note 75), where we could similarly separate -di-ki-te- from a prefix (j)a- and a suffix -te- (cf. also ja-di-ki-tu, equally in the dedicating position, on IO Za 2). A similar 'suffix' -tu would be recognizable in ku-ba-nu / ku-ba-na-tu. The word 'ku-ba-nu' is an onomastic term employed (only in archival contexts) both as anthroponym and as toponym (G. M. Facchetti, *Comparable name-lists*, cit., p. 103); 'ku-ba-na-tu' is readable on HT 47 and HT 119 and also on the libation table AP Za 2: could it be a derivative of the toponym ku-ba-nu? However I do not accept the alternance ku-ba-nu / ku-ba-na-tu as cryptanalytical evidence of the isoconsonantal nature of the A signs nu/na, because those two terms do not occur in securely connected contexts.

⁶⁵ Or: "of A-ta-i-jo-wa- Ja-su-ma-tu (offers) the olives; of U-na-ka-na- (he offers) the oil".

3.2.2. Secondary formula.

Here I transcribe the entire texts of the four documents from which a secondary formula is perhaps perceivable, even if it is, in effect, difficult to rationalize or schematize.

IO Za 6 (*table à libations*)

ta-na-i-jo-u-ti-nu . i-na-ta-i-79-di-si-ka . ja-sa-sa-ra-me .

PS Za 2 (*table à libations*)

[] re-i-ke

ta-na-i-jo-ti . [ja]-[]-ja-ti . ja-sa-sa-ra-me .

PR Za 1 (*table à libations*)

ta-na-su-te-[]-ke . se-to-i-ja⁶⁶ . ja-sa-sa-ra-me .

IO Za 2 (*table à libations*) (final section, after the usual formula)

ta-na-ra-te-u-ti-nu . i-da-[]

The only point of contact with the usual formula is the group 'ja-sa-sa-ra-me', which designates a kind of sacred gift⁶⁷ and occurs in each text (save IO Za 2: but in effect this document is an addition to an already complete usual formula).

The names of the dedications are quite clearly recognizable in IO Za 6 and PS Za 2: they would be respectively i-na-ta-i-79-di-si-ka and [ja]-[]-ja-ti⁶⁸. From these two texts we can deduce a quite certain form for the supposed divine appellative⁶⁹ (ta-na-i-jo-⁷⁰) and for the suffix (-ti⁷¹). We must consider -u-ti-nu⁷² on IO Za 6 and IO Za 2 as a separable and unitary element.

The analysis of PR Za 1 and IO Za 2 is more problematical. Yet we can recognize the element ta-na- (perhaps in connection with ta-na-i-jo-) and the groups ja-sa-sa-ra-me (PR Za 1) and -u-ti-nu (PR Za 2), already discussed.

⁶⁶ Almost certainly a toponym; cf. G. Owens, Was se-to-i-ja at Arkhanes?, Kadmos 33, 1994, pp. 22-28; G. M. Facchetti, Comparable name-lists, cit., p. 100; id., Statistical data, cit., p. 3.

⁶⁷ Above § 3.2.1.

⁶⁸ They are not necessarily anthroponyms.

⁶⁹ Or place-name? Or again the Minoan term for 'libation table'? See my hypothesis of a Minoan locative ending '-ti' (above, note 52). In this case the examined text of PS Za 2 would be translated "in (or "on") the ta-na-i-jo- ja-[]-ja-ti (offers) the ja-sa-sa-ra-me".

⁷⁰ Cf. a-ta-i-jo-(wa-), above § 3.2.1. We read only 'ta-na-' on PK Za 1 and IO Za 2.

⁷¹ Only on PS Za 2. See above, notes 52 and 57.

⁷² In effect in IO Za 6 the element '-u-ti-nu' seems to replace the suffix -ti.

3.2.3. Other philological and epigraphical considerations.

It is evident that data obtained from the comparison of clearly connected contexts have great weight. This is the case with the extended correlation for the m-series ma/me/mi⁷³.

Through similar comparisons I was able to suggest the 'confirmation' of A44 = ke⁷⁴ and the identification (or the firm connection) of A325 with A45 ('de').

In fact there is another (functional?) word in the 'other sorts of documents': 'du-bu-re', which could lead us to identify A314 as a graphic alteration of A29 ('bu').

PK Za 11 (*table à libations*) (a section)

[] nu . ba-e . ja-na⁷⁵-ki-te-te-du-bu-re⁷⁶ . tu-me-i / ja-sa-[sa-ra-me]

KO Za 1 (*table à libations*) (first section)

a-ta-i-jo-wa-ja / tu-ru-sa . du-314-re . i-da-a

PK Za 15 (*table à libations*)

[] . ja-di-ki-te-te-du-bu-re []

HT Zb 160 (*pithos*)

pa-ta-da-du-bu-re⁷⁷

On PK Za 8 the expression 'du-bu-re . tu-me-i' precedes the offering-name ja-sa-sa-ra-me, while on KO Za 'du-314-re . i-da-a' replaces it: 'du-bu-re' probably also indicates some kind of sacred gift.

⁷³ The alternation ja-sa-sa-ra-me / ja-sa-sa-ra-ma-na (KN Za 10), attested in securely connected context, reveals another pair of quite certain isoconsonantal syllabograms: ma/me. About ma/mi cf. G. M. Facchetti, *Statistical data*, cit., p. 4, note 14.

⁷⁴ G. M. Facchetti, *Comparable name-lists*, cit., p. 103, note 7.

⁷⁵ The comparison with PK Za 11, PK Za 12 and IO Za 2 makes likely a scribal lapsus for a correct ja-di-ki-te-te-. For (j)a-di-ki-te-te- (readable on PK Za 11, PK Za 12, PK Za 15) see G. Pugliese Carratelli, *Sulle epigrafi in lineare A di carattere sacrale*, *Minos* 2, 1957, p. 170 and, recently, G. Owens, *Minoan DI-KA-TA*, *Kadmos* 32, 1993, pp. 156-161.

⁷⁶ An integration of PK Za 11 (first section) as 'a-ta-i-jo-wa-e . a-di-ki-te-te-[du-bu or 314]-re . pi-te-[ri] . a-ko-[wa]-ne . a-sa-sa-ra-me' would be epigraphically difficult, above all considering the remains of the sign hypothetically read 'bu or 314'.

⁷⁷ Obviously this text is not related to the libation formula.

SYNOPSIS OF THE LIBATION FORMULAE

PK Za 11	ATAIJOWAE . ADIKITETE[—]RE . PITERI . AKOWANE . ASASARAME . UNARUKANATI . IPINAMINA . SIRUDU . INAJAPAQA
PK Za 12	ATAIJOWAJA . ADIKITE[—]ASI[—] ASASA[RAME] . A[KO]WANE . UNARUKA[NA]JASI . APADUPA[—]JA . [INA]JAPAQA
PK Za 8	[J]NU . BAE . JANAKITETE DUBURE . TUMEI JASA[SARAME .] UNAKANASI [.] IPI[NA] []
PK Za 14	[] TUMEI . JASASA[RAME .] []
PK Za 15	[] . JADIKITETE . DUBURE []
KO Za 1	ATAIJOWAJA TURUSA . DUBURE . IDAA . UNAKANASI . IPINAMA . SIRUTE
TL Za 1	ATAIJOWAJA . OSUQARE . JASASARAME UNARUKA[NASI . IPI]NAMA . SIRU[TE]
IO Za 2	ATAIJOWAJA . JADIKITU . ASASARA[ME . UNAKANA]SI . IPINAMA . SIRUTE . TANARATEUTINU . IDA[]
SY Za 2	ATAIJOWAJA . JASUMATU OLIVAE . UNAKANASI OLEUM AJA
AP Za 2	[UNAKA]NASI . IPINAMA . [—] KUBANATUNATE [] / [] PIMINATE . INAJARETA [—] QA .
PK Za 10	[UNAKANA]SI . IPINAMINA . SI[RUTE]

VRY Za 1		[] IPINAMA	SIRUTE.
IO Za 15		[] IPINAMA	SIRU[TE]
AP Za 1	JATAJOUJA . []		
IO Za 3	ATAIJO .		
	AU[]		
IO Za 4	[ATA]JOWA[JA] []		
IO Za 7	ATAIJOWAJA . JATI-321[]		
IO Za 8	[] ANATIJOWAJA []		
SY Za 1	ATAIJOWAJA . IDAMI .	JA[SASARAME] []	
KN Za 10	[]TANUJOTI . JASASARAMANA .		DAWA[-]DUWATO . IJA []
SY Za 3	ATAIJOWA[JA] .	[—————]	SIRUTE
IO Za 6	TANAIJOUTINU . INATAL-79-DISIKA .	JASASARAME .	
IO Za 2 (final section)	TANARATEUTINU . IDA[]		

PR Za 1	TANASUTE[-]KE SETOIIJA	ASASARAME
PS Za 2	[]REIKE / TANAUJOTI . JAIJATI .	JASASARAME .
PK Za 4		ASASARA[ME]
IO Za 10		[] ASASARAME
IO Za 12		[] . JASASARAME . ITI[]
IO Za 9		UNAKA[NASI] [] JASASA[RAME] []
MA Zb 8		JASA[]
HT Zb 160	PATADADUBURE	
PK Za 16	[] TOSA . BUREJA []	
ZA Zb 34	[] BUREJA . KOMU . RUDI []	
PK Za 17	[] IDA . []	
PK Za 18	[] TE . IDA . JAJA[]	
NE Za 1	[] IDA []	

APPENDIX

Addenda et corrigenda to my previous articles

- Linear A metrograms, Kadmos 33, 1994, pp. 142–148
 - p. 142 line 22: for “...=θⁿ” read “...≠θⁿ”
 - p. 146 line 22: for “1a. 2/3 =” read “1a. 3/2 =”
- Comparable name-lists in Linear A, Kadmos 35, 1996, pp. 100–104
 - p. 101 line 17: for “the same context” read “the same context?”
- Statistical data and morphematic elements in Linear A, Kadmos 38, 1999, pp. 1–11
 - p. 3 line 18: for “*se* and *su* have” read “*se* has”
 - p. 3 line 19–20: delete “79-*di-su-ka* / 79-*di-si-ka*”
 - p. 9 line 26: for “and 25 %” read “and 73 %”.