

DOCUMENTS IN MINOAN LUWIAN,  
SEMITIC, AND PELASGIAN



FRED C. WOULDHUIZEN



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FRED C. WOUDHUIZEN

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## PREFACE

In her book of 2010, Nanno Marinatos writes: “[t]he culture of Crete may be properly deciphered if it is regarded as part of an international milieu.” (Marinatos 2010: 193). This is exactly the approach I have applied this time not in the field of iconography but that of epigraphy, and with the notable inclusion of western Anatolia, which is left out by Marinatos.

When I first started working on the earliest Minoan scripts, Cretan hieroglyphic and Linear A, more than 25 years ago, this consisted of a truly pioneering experience, like stepping into a roller coaster without knowing where the trip would end.

This pioneering work ultimately resulted in the publication of a triptych, the first two parts of which, *Ancient Scripts from Crete and Cyprus* (1988) and *Lost Languages from the Mediterranean* (1989), were written together with my former tutor Jan Best, whereas the third and final part, *The Language of the Sea Peoples* (1992), was written by me alone but with the backing of an entire working group under the leadership of the co-author just mentioned. In the foreword of the second work in this triptych, however, there was already an explicit awareness among both authors that the results from this pioneering endeavor should eventually be systematized into a more definite work like *Documents in Minoan Luwian and Semitic*.

At present, then, I believe that, working from my series entitled *The Earliest Cretan Scripts* [1] (2006) and 2 (2009), it is possible to present such a more definite work on the earliest Minoan scripts to the readers interested in the topic. Two developments encourage me to utter such a bold statement. In the first place, our knowledge of Middle and Late Bronze Age Luwian hieroglyphic has increased during the last few years to such an extent that it can now be positively identified as having formed the main stimulus in the process of the development of Cretan hieroglyphic as attested from c. 2000 BC onwards. Secondly, recent results in work on the Byblos script has provided us with the closest comparative data for the language encoded in the majority of the longer Linear A texts, both scripts being almost simultaneously developed during an advanced stage of the Middle Bronze Age, say from c. 1720 BC onwards.

My positive stand in the matter may perhaps surprise some of the readers, but it should be realized in this connection that there is a general misconception about Cretan hieroglyphic and Linear A.

According to this misconception work on the improvement of our understanding of the contents of the texts conducted in the aforesaid scripts is a “mission impossible” because, in comparison to Linear B, the *quantity* of working material is insufficient. However, what one overlooks when adhering to this generally held view is that there is a substantial number of longer texts in Cretan hieroglyphic and Linear A of which the linguistic content from a *qualitative* point of view by far outmatches that of the average Linear B record with its dry economic registration in the main lacking true phrases. In actual fact, therefore, the opportunities for clarifying the contents of texts in the Minoan scripts are far better than in the case of their Linear B counterparts!

Pioneering work is always deficient in some respects, and one of the mistakes from the past worth mentioning here was that, when confronted with reflexes of Akkadisms and even Sumerograms in the Minoan Luwian language, an appeal on the pidgin nature of this language was made as an easy way out. Owing to our knowledge of cuneiform Hittite and Luwian texts from Anatolia, however, in which Akkadisms and Sumerograms form an integral part of the language, it can now be established that these reflexes of Akkadisms and Sumerograms are only to be expected in the Minoan Luwian matrix-language.

One of the latest developments in the field is the distinction of an Old Indo-European substrate in the western Anatolian Luwian context, which, as I argued elsewhere, can positively be identified as Pelasgian. Now, the notion “Pelasgian” has been misused in the past to bolster preconceived modern linguistic theories according to which it had to comply with phonetic laws superimposed on it. In contrast with this ahistorical practice, Pelasgian is used here in accordance with the information from the Greek literary sources—which after all are more than about two and a half millennia closer to the recorded events than our consummation of them—so that my starting point is formed by the actual association of Pelasgians with toponyms, divine and personal names in the aforesaid ancient sources. In this manner, then, I arrive at the conclusion that, just like in the western Anatolian Luwian context, also in the Cretan Luwian context there is evidence for an Old Indo-European substrate to be identified as Pelasgian; this explains my addition of Minoan Pelasgian to the Minoan Luwian and Semitic in the title.

Evidence from Linear B, finally, which is the vehicle for the Mycenaean Greek language introduced from mainland Greece after the for the Minoan civilization disastrous Minoan eruption of the

Santorini volcano *c.* 1450 BC, is only used in so far it has a bearing on our understanding of the contents of the texts in Minoan Luwian, Semitic, and Pelasgian.

My sincere feelings of thanks are due to Maarten D. de Weerd and Jan P. Stronk for their proofreading of the entire manuscript and kindly offering many suggestions as to its improvement. Remaining errors are mine, of course.

Fred C. Woudhuizen

## LIST OF ABBREVIATIONS

## GRAMMAR

N: nominative	m: masculine
A: accusative	f: feminine
D: dative	n: neuter
G: genitive	c: communal gender
Abl.: ablative	s or sg.: singular
imp.: imperative	p or pl.: plural
inf.: infinitive	pers.: person

## GENERAL

AB: Linear A and B (also *)	LA: Linear A
AR: Arkalokhori	LB: Linear B
B: Bossert	LBA: Late Bronze Age
BS: Byblos script	LF: libation formula
CH: Cretan hieroglyphic	LH: Luwian hieroglyphic (*)
CHIC: corpus of CH inscr.	LM: Late Minoan
CM: Cypro-Minoan	MA: Malia altar-stone
CMS: corpus of Minoan seals	MBA: Middle Bronze Age
CR: Crete	MM: Middle Minoan
DA: double-axe	MN: man's name
E: Evans	Neol.: Neolithic
EBA: Early Bronze Age	P: Palace
EgH: Egyptian hieroglyphic	PD: Phaistos disk
EH: Early Helladic	PF: profane formula
EIA: Early Iron Age	PH: Phaistos
EM: Early Minoan	PIE: Proto-Indo-European
FN: female name	PK: Palaikastro
GN: god's name	PN: personal name
GORILA: corpus of LA inscr.	PY: Pylos
HD: Hieroglyphic Depot	QMu: Quartier Mu
HT: Hagia Triada	RCT: Room of the Chariot Tablets
IE: Indo-European	TI: Tiryns
IO: Iouktas	TL: Troullos
KH: Khania	TH: Thebes
KN: Knossos	TN: town name
KO: Kophinas	VDL: Volcanic Destruction Level
KY: Kythera	ZA: Zakro
L: Linear	

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### Acknowledgement

For the composition of Fig. 29 I have made use of drawings of seals as published in CMS, which concern # 276 (CMS IV, 135), # 287 (CMS XII, 112), # 293 (CMS II, 2, 256), # 295 (CMS II, 2, 316), # 301 (CMS XII, 106), and # 303 (CMS XII, 109). Others come from Evans 1909: 150-157, which entail # 193 (= P.38), # 246 (= P.7), # 253 (= P. 19), # 255 (= P. 24), # 257 (= P. 23), # 290 (= P. 28), # 296 (= P. 42), # 298 (= P. 27), # 310 (= P. 29), and # 312 (= P. 30). The remainder are from CHIC (# 264, # 272, # 283, # 297, # 300, and # 309) and Chapouthier 1930: 18 (# 271).

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CHAPTER I:  
CRETAN HIEROGLYPHIC



## I.1 THE LUWIAN HIEROGLYPHIC CONTRIBUTION TO THE CRETAN HIEROGLYPHIC SIGNARY\*

### 1. INTRODUCTION

The island of Crete is characterized by three different scripts during the Bronze Age period, namely: Cretan hieroglyphic (CH), Linear A (LA), and Linear B (LB). Of these scripts, Cretan hieroglyphic starts earliest, from *c.* 2000 BC, and continues to *c.* 1350 BC.<sup>1</sup> Next comes Linear A, which is developed in the final stage of the 18th century BC and likewise dies out *c.* 1350 BC. Finally, Linear B is introduced in Knossos and Khania from the Greek mainland *c.* 1450 BC and, like in the Greek mainland, lingers on to the end of the Bronze Age, *c.* 1200 BC (see Fig. 1).<sup>2</sup>

As far as decipherment is concerned, the latecoming Linear B has been tackled first. Thus the British architect Michael Ventris was able to demonstrate in 1952 that it records an old form of Greek, called Mycenaean Greek.<sup>3</sup> Subsequently, work focused on Linear A, which, in line with the approach initiated by the American specialist in Ugaritic, Cyrus Gordon, was shown by the Dutch archaeologist Jan Best in 1981 to render a Semitic dialect, classified by him as Old Phoenician.<sup>4</sup> Lagging behind in all of this, is the work on the oldest type of script, Cretan hieroglyphic, though a breach-in has been accomplished—with the attempt to elucidate the longer hieroglyphic inscriptions and the standard formulas on the basis of the relationship of the script with basically Luwian hieroglyphic from Anatolia—by Best and myself since 1988.<sup>5</sup> A final breakthrough was reached by me only some 20 years later in 2006 with the elucidation of not just a few but a substantial number of the seal legends.<sup>6</sup>

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\* This is a reworked and updated version of Woudhuizen 2006b: section III.1 (pp. 67-106) and Woudhuizen 2009: section I.1 (pp. 15-83).

<sup>1</sup> Note that the lowering of the date of the Late Minoan IIIA1/2 transitional period from *c.* 1370 BC to *c.* 1350 BC depends from a minor correction in the dating of the Egyptian king list, see Kitchen 1996 = Kitchen 2000 and cf. section IV.2.1 below.

<sup>2</sup> For a Linear B inscription from Olympia dated to the end of Middle Helladic III (*c.* 1600 BC), see Owens 1998-9, esp. 144 for the diagnostic sign AB36 *jo*.

<sup>3</sup> Ventris 1988; cf. Ventris & Chadwick 1953.

<sup>4</sup> Best 1981a. See further chapter II below.

<sup>5</sup> Best & Woudhuizen 1988; Best & Woudhuizen 1989; Woudhuizen 2001.

<sup>6</sup> Woudhuizen 2004-5 [2006]; Woudhuizen 2009: 44-45.

A clue as to the language of the Middle and Late Bronze Age Cretans, which did not work out in the context of the decipherment of the intrusive Linear B, but nonetheless may well be of relevance for our understanding of the original Minoan scripts, viz. Cretan hieroglyphic and Linear A, is formed by the Egyptian evidence on the language of the Keftiu. This consists of a magic spell against the Asiatic pox and an exercise in writing Keftiu names.

The magic spell, which probably dates from the reign of Amenhotep III (1390-1352 BC), runs as follows: *sntikꜣpꜣpywꜣ yꜣym ꜣntiꜣrkꜣkꜣr*, or, in the vocalized transliteration as adopted by Wolfgang Helck: *sa-n-ta-ka-pu-pi-wa-ya-'a-ya-ma-n-ta-ra-kú-ka-ra* (see Fig. 2a). As argued at length in my contribution on the topic from 1992a (with references), the formula can be subdivided into six individual entities, four of which render three god's names (GNs) in sum, viz. *Santas*, *Kupapa* and *Tarku Kara*, and the remaining two of which consist of vocabulary words, viz. *waya* (*wꜣy*) and *'ayaman* (*yꜣym ꜣn*).<sup>7</sup> The three divine names are all of Luwian background,<sup>8</sup> whereas the vocabulary words, in conformity with the situation in Cretan Linear A, are Semitic, *waya* corresponding to *wy* “and” as recorded for a Phoenician inscription from Cyprus and *'ayaman* to *'immanu* “with us” as in Biblical *'immanu'el* “with us god”, so that in its entirety the translation of the formula runs as follows: “Santas, Kupapa and with us Carian Tarkhu(nt)”.

The exercise in writing Keftiu names is found on a writing board dating back to the period of the early 18th dynasty (1550-1450 BC). Its introductory phrase reads: *irt rn.w n kftiꜣw* “to make names of the Keftiu”. In this exercise, we come across a name formula like *ikꜣšꜣꜣw bn n dꜣꜣbꜣr* “Ikausa, son of Daparasa”, in which, just like in case of the vocabulary words in the magic spell against the pox discussed above, the word for “son” is in Semitic (note however that it is directly followed by the Egyptian preposition *n* “of”). However, the second name at least, for its correspondence to the Lycian personal

<sup>7</sup> Woudhuizen 1992a: 1-10; according to the expert Egyptologist J.F. Borghouts, the sign Gardiner 1994: N 31 “road” does not render a phonetic value in the present context.

<sup>8</sup> For Luwian hieroglyphic, see Savaş 1998: 41-42 (*Santas*); 17-29 (*Kupapa*); 47-63 (*Tarhunt*); note that *Tarhu(nt)* is represented as *Trqqñt-* or *Trqqas* in Lycian inscriptions, see Melchert 1993b, s.v., and as Zeus *Targuènos* in Lydia; *Santas* and *Kupapa* are recorded in form of *Šantaš* and *Kufav* in Lydian no. 4, see Gusmani 1964 and cf. Gusmani 1969.

<sup>9</sup> Gardiner 1994: 66, § 86.

name *Daparas*, is of definite Luwian type.<sup>10</sup> Another interesting instance of a typically Luwian man's name (MN) is formed by *rwwwntii* (in Helck's vocalized transliteration *ru-w-an-ta*), which corresponds to *Ruwantias* or *Runtias*, written with the deer with prominent antlers' sign or, as a *pars pro toto*, the antler sign and hence originating from an earlier form *Kuruntas* or *Kuruntis* (< *karuwar*- < Proto-Indo-European [= PIE] *\*k<sub>erh</sub>-* "horn"). Note that the outcome of the phonetic development *Kuruntiyas* > *Kruntiyas* > *Runtiyas* is already attested for Luwian names in the Anatolian Kültepe-Kanesh texts (c. 1920-1750 BC) in view of the MNs like *Ruwa<sup>n</sup>tía* and *Ru<sup>n</sup>tía*,<sup>11</sup> whereas the same holds true for Hittite Late Bronze Age seals (c. 1650-1200 BC) as exemplified, amongst others, by the seal of *Halparuntias*, in which the second element is likewise written with the deer with prominent antlers' sign.<sup>12</sup> Even in the indigenous Cretan scripts the theophoric MN in question is attested in its developed form as *ru-ma-ta*, a reflex of the Luwian GN *Rum/nt*-<sup>13</sup> as recorded for Linear A tablets from Hagia Triada (HT 29.1; 99b.2), dated c. 1350 BC.

The Egyptian exercise in writing Keftiu names even informs us about yet another Minoan ethnic identity in the form of *m<sup>i</sup>d<sup>3</sup>d<sup>3</sup>m<sup>ç</sup>*, the first element of which cannot be dissociated from the Phrygian royal name *Midas* as already attested in form of *mi-da* for a Linear A inscription from Hagia Triada (HT 41.4), again, dated, as we have just noted, c. 1350 BC (see Fig. 2b). In chapter III.1 below, we will see that this MN may reasonably be argued to be of ultimately Pelasgian origin.

What this Egyptian evidence on the language of the Keftiu basically indicates is that vocabulary words are in Semitic, but the

<sup>10</sup> Woudhuizen 1992a: 1-2 (with references). Note that Egyptian *d* expresses a sibilant in *m<sup>i</sup>d<sup>3</sup>ni<sup>3</sup>* "Messenia" from the list of Aegean place-names of Amenhotep III's temple tomb at Kom el-Hetan (Cline 1987: 26-29, Table 2; cf. Cline 2001; Edel & Görg 2005: 161-191 with Falttafel 2), but it should be realized in this connection that the Egyptian rendering of Anatolian dentals is sometimes inexact as may be illustrated by the case of the Egyptian rendering of Carian *Darqpeon* (cf. Ταρκουπιος, a Cilician theophoric name from the Hellenistic period combining the GN *Tarku-* with the verbal root *piya-* "to give" analogous to Greek Ἀπολλόδορος or Ἀπολλόδοτος, see Houwink ten Cate 1961: 127) as *Š<sup>3</sup>rkby<sup>m</sup>* in a bilingual inscription from Saqqara (E.Sa 1, cf. Adiego 2007: 32-33; 194) dating to the 7th or 6th century BC.

<sup>11</sup> Yakubovich 2010: 211-212.

<sup>12</sup> For the PIE roots, see Puhvel HED, s.v. *karwar*; for the seals of *Halparuntias*, see Herbordt 1998: 317, Fig. 4, nos. 3-4.

<sup>13</sup> Houwink ten Cate 1961: 128-131.

names predominantly of Luwian type. Hence, we might infer from it that in Minoan Crete Semitic is used as a *lingua franca* by a basically Luwian population. As we will see in chapters II and III below, this is exactly the situation in Linear A. The question here is whether the same verdict also holds good for Cretan hieroglyphic.

Any attempt to decipher Cretan hieroglyphic should start with the internal evidence formed by a number of standard formulas. These are of two kinds, one, religious, called the libation formula (LF), which has an offshoot in Linear A texts on wash-hand stone-basins from peak-sanctuaries destroyed *c.* 1600 BC, and the other of secular nature, for convenience's sake labelled profane formulas (PF) here. With their traditional names, which are not always correct (thus "gate" is in reality a door and "throne" is in reality a gate), and their numbering according to the recent corpus of Cretan hieroglyphic texts by Jean-Pierre Olivier and Louis Godart of 1996 (= CHIC), or, if this is lacking, with that in Arthur Evans' original publication of 1909 (preceded by E), these formulas are the following:

LIBATION FORMULA	NUMBERS	FREQUENCY
axe-sepia-sepia-bird of prey-spouted vessel	042-019-019-E80-052	14x
PROFANE FORMULAS	NUMBERS	FREQUENCY
(1) trowel-arrow	044-049	72x
(2) trowel-eye	044-005	35x
(3) trowel-adze	044-046	7x
(4) eye-trowel-arrow	005-044-049	4x
(5) gate-leg-flower	038-010-031	25x
(6) throne-horn-flower	036-092-031	11x
(7) seal-land-official(s)	056-034-057	9x

Table I. Overview of the various recurrent formulas in Cretan hieroglyphic.

As a note to this survey, it deserves our attention that the third profane formula never occurs in combination with the second one: *a priori* this might be explained by assuming that the third constitutes nothing but a rare variant of the second. Furthermore, the low frequency of the fourth profane formula results from the fact that it is usually written in full as CHIC044-049(-)044-005 "trowel"- "arrow" (-)"trowel"- "eye", either on two adjacent sides of the seal (14x) or

even on one side only, as in case of # 283 and # 297.<sup>14</sup> Thirdly, the three profane formulas last mentioned also occur in abbreviated variant, nos. 5 and 6 without the final “flower” sign CHIC031, which happens to be the case 16x for the fifth formula and 6x for the sixth formula, and no. 7 without the final CHIC057, which happens to be the case at least once, on seal # 271. Hence, in reality their total amount adds up to 41x for the fifth formula, 17x for the sixth formula and 10x for the seventh formula. Note further with respect to the seventh formula that, more in general, the legend of the seals frequently starts with the seal sign CHIC056, as in case of seals # 126 and # 193, of which the latter is reproduced in the present contribution (see Fig. 29). In sum, the standard formulas are distributed over 130 different inscriptions, which covers more than 1/3rd of the total amount of 331 inscriptions included in the corpus of Olivier & Godart (1996).

No attempt at decipherment, however, can do without external evidence, often in the form of a comparison of the signs to parallels in other, already deciphered scripts. It should be realized in this context that even Ventris worked with external evidence, as the experimental values for the *t*- and *l*-series in his first grid were based on the relationship in form of the signs to the Cypriot syllabary.<sup>15</sup> In the case of Cretan hieroglyphic, then, we are confronted with four different categories of signs, namely: (1) signs corresponding to Luwian hieroglyphic counterparts, (2) signs resembling Egyptian hieroglyphic counterparts, (3) signs paralleled in Cretan Linear A, and (4) signs related to Cypro-Minoan (CM) counterparts—the latter script being an offshoot of Linear A.

Considering the fact that there are only two other hieroglyphic writing systems current in the region, the Cretan hieroglyphic script from a comparative point of view may be assumed to be related to either Egyptian hieroglyphic (EgH) to the southeast of Crete or Luwian hieroglyphic (LH) from Anatolia to the northeast of Crete. Both these two possible lines of approach have been put into practice in the past. Thus Arthur Evans, the discoverer of the script, started to compare Cretan hieroglyphic signs to Luwian counterparts,<sup>16</sup> whereas at a later stage he rather preferred to look for correspondences with

<sup>14</sup> Numbering of the seals marked by # in accordance with CHIC.

<sup>15</sup> Ventris 1988: 143; cf. 102 (note that the sign AB51 in the position of *li* in the grid is placed so on the basis of the assumed correspondence with Cypriot syllabic *li*, whereas it later turned out to render the value *ra*; see further Woudhuizen 2006b: 15-28).

<sup>16</sup> Evans 1895: 33 ff.

Egyptian.<sup>17</sup> Next, three of the pioneers in the deciphering process of Luwian hieroglyphic, Ignace Gelb,<sup>18</sup> Helmut Bossert<sup>19</sup> and Piero Meriggi,<sup>20</sup> pointed out numerous relationships of Cretan hieroglyphic with the script they were engaged with. Since then, Turkish scholars like Sedat Alp<sup>21</sup> and Nimet Özgüç,<sup>22</sup> who were involved in the earliest manifestations of the Luwian hieroglyphic script during the Middle Bronze Age (MBA),<sup>23</sup> showed an awareness of Cretan connections.

The whole matter received renewed attention at the time that Jan Best definitely succeeded to place the famous discus of Phaistos (PD) in an Anatolian context, first by demonstrating the relationship of signs PD11 and PD39 to the Luwian symbols of royalty, winged sun-disk (LH \*190), and of lightning (LH \*199),<sup>24</sup> and later by embedding the Luwian connection in a network of internal evidence in the form of a doublet and triplets (see Fig. 53) and a vowel analysis.<sup>25</sup> Working out this relationship, it turned out that of the total amount of 47 signs on the discus, 32 can convincingly be linked up with a Luwian hieroglyphic counterpart (see Fig. 25).<sup>26</sup> However, as we soon realized, the script of the discus is not an isolated phenomenon on Crete, but can further be attested for a double axe from Arkalokhori (DA) and an altar stone from Malia (MA).<sup>27</sup> As a matter of fact, as indicated by the 18 correspondences in sum listed in Fig. 25 below (co-occurrence of sign numbers preceded by E and PD), it is nothing but a manifestation—be it on the largest extant scale—of

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<sup>17</sup> Evans 1909.

<sup>18</sup> Gelb 1931: 79 ff.

<sup>19</sup> Bossert 1932: 5 ff.

<sup>20</sup> Meriggi 1987 [= 1934]: 204, Abb. 177.

<sup>21</sup> Alp 1968: 276.

<sup>22</sup> Özgüç 1980: 78.

<sup>23</sup> For a discussion of Middle Bronze Age Luwian hieroglyphic seals, see Woudhuizen 2004a: 112-120; Woudhuizen 2005; Woudhuizen 2011a: 73-83; 84; 88; 464-467; Woudhuizen 2015b: 20-28 (= section III).

<sup>24</sup> Best 1981b: 49-56; numbering of the Luwian hieroglyphic signs according to Laroche 1960. Note that the LH signs are marked throughout this work by \* in contradistinction of Cretan Linear A signs also traditionally marked by an L.

<sup>25</sup> Best & Woudhuizen 1988: 30-53.

<sup>26</sup> Achterberg e.a 2004: 33-83 (total of 29 correspondences); Woudhuizen 2009: 17 (3 additional correspondences).

<sup>27</sup> Best & Woudhuizen 1988: 87, Fig. 1b; Best & Woudhuizen 1989: 74, Fig. 1b; 77, Fig. 2c; Woudhuizen 2006b: 107-118; 122-125, Figs. 26-34; see sections I.8-9.

Cretan hieroglyphic itself.<sup>28</sup> *Mutatis mutandis*, the possible relationship of the latter script with Luwian hieroglyphic comes to the fore again.

This relationship is a viable one, as I hope to show in my list in section I.1.2 below, which is illustrated in Fig. 25. In this list I present an exhaustive overview of the correspondences between Cretan hieroglyphic and Luwian hieroglyphic for signs which occur in a reasonably clear context. This list, which is an elaboration of earlier efforts,<sup>29</sup> includes signs from the discus of Phaistos and the aforesaid double axe from Arkalokhori. Apparently for reasons of doubt about their authenticity, these texts are omitted from the recent corpus of Cretan hieroglyphic inscriptions.<sup>30</sup> In order to overcome this omission, I suggest to assign to these two texts a number adding up to the last one recorded for CHIC, thus the double axe of Arkalokhori becomes # 332 and the discus of Phaistos # 333. Note further that I have preferred in my Fig. 25 the drawings of the signs as presented in Evans' original publication (1909), because these are executed in a bigger format and because in a significant number of instances Evans distinguishes a sign which is not recognized as such by CHIC.

Notwithstanding the fact that Cretan hieroglyphic is basically related to Luwian hieroglyphic, there is a number of cases in which Egyptian hieroglyphic provides the closest comparative evidence. This concerns first of all the bee-sign, which—apart from a singular occurrence—goes unrepresented among the Luwian hieroglyphic repertoire. Like in Egyptian (EgH L2),<sup>31</sup> the latter sign turns up in combination with a floral motif (the corresponding form of EgH M23), to indicate the king of Lower and Upper Egypt. This royal title is also attested for Middle Bronze Age inscriptions from Byblos, which was subject to strong Egyptian influences at the time.<sup>32</sup> In

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<sup>28</sup> Best & Woudhuizen 1988: 86-89; Best & Woudhuizen 1989: 73-77; 97-128; Woudhuizen 2006b: 87-91, Table IV (total of 15 correspondences); Woudhuizen 2009: 17; 62-69, Figs. 5-12 (3 additional correspondences). To these examples may be added the correspondence of the man's head on seal # 297, 3 to PD02 (see section I.2 below) and that of the "thorn" in the legend of the largest seal # 294 to PD46 (see section I.6 below).

<sup>29</sup> Best & Woudhuizen 1988: 87, Fig. 3; Woudhuizen 1992b: Pl. XXVI; with a bearing on the seals only 2006c: 6; most recently Woudhuizen 2006b: 87-91, Table IV; Woudhuizen 2009: 24-26; 62-69, Figs. 5-12.

<sup>30</sup> According to Godart 1994a: 126 the text on the double axe of Arkalokhori is merely a pseudo-inscription and according to Eisenberg 2008 the text of the discus of Phaistos is an at the time of writing 100 years old hoax.

<sup>31</sup> Numbering of the Egyptian hieroglyphic signs according to Gardiner 1994.

<sup>32</sup> Best & Woudhuizen 1988: 8, Fig. 7.

Crete, the bee-sign undergoes a typical local treatment in the sense that, apart from its regular depiction from the side (E86 = CHIC020), it also tends to be represented from the top (CHIC021) or to be altogether mistaken for a spider (E85).<sup>33</sup> Besides the bee-sign in combination with a floral design, the symbol of royalty in form of a winged sun-disk, mentioned among the Luwian correspondences, ultimately originates from Egyptian hieroglyphic as well (though it lacks a proper number in Gardiner's sign list), but its *ductus* in Crete betrays Anatolian influences in the fact that the sun-disk is represented as a rosette (see Fig. 3). The same holds good for the *ankh*-sign (EgH S34), which, like it is the case in Anatolia, in Crete (= so-called "knot", which is not specified by a number in the various corpora) is characterized by two side stems; note, however, that in Anatolia (LH \*369) the central stem is lost, whereas in Crete this is preserved (see Fig. 4).<sup>34</sup> Apparently, these two signs, which belong to the oldest layer of Luwian hieroglyphic during the Middle Bronze Age,<sup>35</sup> reached Crete through an Anatolian intermediary.

The indirect route for signs originating from Egyptian hieroglyphic may further be illustrated by the "trowel"-sign (CHIC 040), which not only in *ductus* is closest to a Byblian parallel—a provincial variant of X8 "conical loaf?"—, but also receives a value based on the translation of its Egyptian meaning, *dī* "to give", into Luwian, hence *pī* as acrophonically derived from *piya*- "to give".<sup>36</sup> A similar adaptation of the value can be observed for the wine ideogram (CHIC \*156), representing Semitic *wainu* instead of Egyptian *irp* (see Fig. 41),<sup>37</sup> the tablet-sign (E31), rendering in Linear A the syllabic value *du* as acrophonically derived from Semitic *tuppu* "tablet",<sup>38</sup> and the palace-sign (CHIC041), of which the acrophonic value *wa<sub>9</sub>* can only be explained in terms of a mixing-up with its Luwian hieroglyphic look-alike *wana* "stele, altar" (LH \*267). In like manner as the case with the "trowel"-sign, provincial variants of Egyptian hieroglyphic signs are also of vital importance for our understanding of the process of radiation to Crete in connection with T25 *db* 'reed-float', which in the Byblos script becomes a "vessel" for the expression of the syllabic value *de* (= CH

<sup>33</sup> Woudhuizen 1997, for an updated version of which see Woudhuizen 2011c.

<sup>34</sup> Woudhuizen 2006c: 1; 3, Fig. 1.

<sup>35</sup> Woudhuizen 2004a: 112-120; Woudhuizen 2005b.

<sup>36</sup> Woudhuizen 2002b.

<sup>37</sup> Best & Woudhuizen 1988: 8, Fig. 8; 13, Fig. 17; 15-16.

<sup>38</sup> Friedrich 1946: Wörterverzeichnisse III, s.v.

*té*, LA *de*), and that of U6 *mrì* “hoe”, which in the Byblos script is represented by the lower part of the body of an official (= CH and LA HOMO) (see Fig. 26).<sup>39</sup> Although direct contact between Egypt and Crete can, of course, not be excluded, the given evidence seems to allow for the conclusion that Egyptian signs reached Crete through the intermediary of the Levant and/or Anatolia. Or, at the very least, the handling of this category of signs in Crete may be qualified as “more loosely” than the one received by the category of signs originating from Luwian hieroglyphic.

A full list of correspondences between Cretan hieroglyphic and Egyptian hieroglyphic signs which occur in a reasonably clear context is presented in Fig. 26.<sup>40</sup>

A third source for signs from Cretan hieroglyphic is formed by the indigenous Cretan Linear A. It is a simplification of the actual state of affairs that, as often assumed, Cretan hieroglyphic constitutes a forerunner of Linear A: such a view only applies in case of the libation formula, which develops in the course of time into its Linear A descendant as attested for wash-hand stone-basins from peak-sanctuaries the destruction of which is usually assigned to the Middle Minoan III/Late Minoan I transitional period (c. 1600 BC).<sup>41</sup> In most other instances, however, the representation of Linear A signs among Cretan hieroglyphic results from a merger between the two scripts, which started from the time of the earliest attestation of Linear A in the final stage of Middle Minoan II (c. 1720-1700 BC) onwards, thus—if we leave aside for a moment the complexities of the origin of Linear A addressed in section II.2 below—providing us with a *terminus post quem* for seals showing Linear A influences other than the libation formula.<sup>42</sup>

A full list of correspondences between Cretan hieroglyphic and Cretan Linear A for signs which occur in a reasonably clear context is presented in Fig. 27.<sup>43</sup>

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<sup>39</sup> Cf. Woudhuizen 2007: 754, Fig. 12.

<sup>40</sup> For an earlier attempts, see Woudhuizen 2006c: 7; most recently Woudhuizen 2006b: 92-93, Table V; Woudhuizen 2009: 70-71, Figs. 13-14. Note that in the case of the addition of Cretan hieroglyphic E29 as originating from the Egyptian hieroglyphic “harp” sign EgH Y7 *bint* I am indebted to Best in Best & Woudhuizen 1988: 13, Fig. 17.

<sup>41</sup> Woudhuizen 2001: 608.

<sup>42</sup> Vandenabeele 1985: 18.

<sup>43</sup> Cf. Woudhuizen 1992b: Pl. XXIV; Woudhuizen 2006c: 7; most recently Woudhuizen 2006b: 94-95, Table VI; Woudhuizen 2009: 72-73, Figs. 15-16; numbering of the Linear A signs according to Meijer 1982: 38-47.

The relationship of Cretan hieroglyphic with Cypro-Minoan has no bearing on the origins of Cretan hieroglyphic, but only on the date of its continuation, proving that it still flourished, especially in the sense that the profane formulas 044-049 “trowel”-“arrow” and 044-005 “trowel”-“eye” still must have been current, at the time of the earliest attestations of Cypro-Minoan in the late 16th or early 15th century BC.<sup>44</sup>

The Cretan hieroglyphic contribution to Cypro-Minoan is visualized in Fig. 28.

In his attempt to present a model for the origins of the Cretan hieroglyphic script, Wim van Binsbergen took the analysis of Jan Best as his starting point. Best maintains that Egyptian hieroglyphic contributed as much as 35 signs to Cretan hieroglyphic, Luwian hieroglyphic only 30 signs, and the Byblos script 10 signs.<sup>45</sup> He did not back up this analysis, however, by a further specification. As shown above, our analysis of the situation is different, with Luwian hieroglyphic providing the bulk of the material (85 signs), and Egyptian hieroglyphic (22 signs, of which 11 go without attestation in Luwian hieroglyphic) and Cretan Linear A (23 signs, of which 7 do not originate from either Luwian hieroglyphic or Egyptian hieroglyphic) rendering supplementary services only. This does not diminish the usability of van Binsbergen’s models as an aid to develop our own—slightly adapted—version, according to which a large arrow from western Anatolia represents the most prolific Luwian hieroglyphic contribution, and small arrows from Egypt directly to Crete and from Egypt via Byblos to Crete represent the subsidiary Egyptian contribution (see Fig. 5).

The most easy access to the heart of the corpus of Cretan hieroglyphic texts is formed by the libation formula (LF, see Fig. 6). As we have already noted, this has a descendant in Linear A attested for wash-hand stone-basins from peak-sanctuaries the destruction of which is usually assigned to the Middle Minoan III/Late Minoan I transitional period (*c.* 1600 BC). In numbers, the Linear A formula reads L52-31-31-53-84 with the proviso that in variant writings the first sign can be represented by L32 and the last one by L95. Furthermore, it deserves our attention that, just like in the case of one of the hieroglyphic counterparts, the last sign is often separated from the preceding sequence by a punctuation mark, in the Linear A variant in the form of a dot placed high on the line (see Fig. 6b, no.

<sup>44</sup> Woudhuizen 1992a: 87-90; Woudhuizen 2001: 610; Woudhuizen 2006c: 8.

<sup>45</sup> Van Binsbergen 1996-7: 134-142.

1), in the hieroglyphic one in the form of a small hook (see Fig. 6a, no. I). On the basis of their correspondence to Linear B equivalents, the Linear A legends can be read as *a-sa-sa-ra.me*, *ya-sa-sa-ra.me* or *ya-sa-sa-ra-ma* (cf. section II.9, note 6).

From a linguistic point of view, Nikolas Platon has suggested that the root *a-sa-sa-ra* may well be compared to the Phoenician divine name *Asherat*.<sup>46</sup> In line with this suggestion, Jan Best—who for the divine name also pointed to *Asherah* from the Old Testament—explained the enclitic element *-me* or *-ma* as a particle comparable to Ugaritic *-m* as in *b'lm* “oh Baal!” and *ilm* “oh Il!”. Moreover, he further convincingly related the prefix *y-* which turns up in some of the variant forms with the vocative particle *y-* in Ugaritic as attested for the combination *yymm* “oh Ym!”.<sup>47</sup> As it seems, then, both the divine name and the grammatical features of the Linear A formula *(y)a-sa-sa-ra.me* or *ya-sa-sa-ra-ma* “oh Asherah!” are Old Phoenician. A similar conclusion no doubt holds good for its hieroglyphic predecessor from the Early Minoan III/Middle Minoan I transitional period (c. 2000 BC), now readable as *a-sa<sub>1</sub>-sa<sub>1</sub>-ra-me* or *a-sa<sub>1</sub>-sa<sub>1</sub>-ra.me* “Oh Asherah!” (the case with the punctuation mark in form of a hook concerns # 252 as depicted in Fig. 6a, no. I). About this latter, it is finally interesting to observe that the variant form characterized by the lozenge-shaped sign in final position (# 251 from Arkhanes) probably reads *a-sa<sub>1</sub>-sa<sub>1</sub>-ra-mà* for the correspondence of the sign in question to Luwian hieroglyphic \*419 *mà* (see Fig. 6a, no. VII).<sup>48</sup>

The discovery of examples of the Cretan hieroglyphic libation formula at Samothrace (# 135-137) may well indicate that cult places

<sup>46</sup> Platon 1958: 313, note 22. Note that Palmer's (1958b: 139) alternative solution to connect the root *a-sa-sa-ra* with Hittite *ishar-* “lord” is ruled out because Anatolian [h] is rendered by [k] or [q] in the Cretan Linear scripts as in Linear B *a-ka-wi-ja-de* “to Akhaia”, the root of which corresponds to Hittite *Ahhiyawa-*, and *e-ri-ta-qi-jo*, the second element of which bear testimony of the Luwian onomastic element *Tarhu(nt)-* as per Billigmeier 1970: 182.

<sup>47</sup> Best 1981b: 20; Best & Woudhuizen 1988: 20; 25-6; cf. Best & Woudhuizen 1989: 18-24.

<sup>48</sup> Note that the small crosses on either side of the “double axe” sign in # 205 (= Fig. 6a, no. V) single it out as the cult symbol of the goddess. Note further that the given analysis of LH \*419 *mà* as a constituent element of the hieroglyphic variant of the libation formula in # 251 (= Fig. 6a, no. VII) is underlined by the observation that as a rule this formula is divided over two sides of three-sided prism seals, the third side being reserved for the personal name of the devotee, as in case of # 252, where this side (not depicted in our Fig. 6a, no. I) starts with the determinative of personal names E14.

of Asherah served as an asylum for international trade. More in general, the zealous veneration of the goddess may be compared to the predilection of the miners in Sinai for *Ba'alat* of which their inscriptions in the Proto-Sinaitic alphabet, variously dated *c.* 1850 BC, *c.* 1600 BC or *c.* 1500 BC, bear testimony.

A natural starting point for the elucidation of the profane formulas (see Fig. 7) is, just like in case of the libation formula, formed by comparison of the signs to Linear A counterparts. In their table of comparisons, Olivier & Godart plausibly propose the correspondence of CHIC038 “gate” to L32 *ya*, CHIC092 “horn” to L55 *ru*, and CHIC005 “eye” to L101 *zu*.<sup>49</sup> To this might be added the correspondence, noted already by Michael Ventris & John Chadwick in their comparative table, of “adze” CHIC046 to L88 *ī*.<sup>50</sup> Yet another corner of incidence is provided by the aforementioned relationship of CHIC044 “trowel” and CHIC049 “arrow” to linear descendants in the Cypro-Minoan script, *in casu* CM 51 *pi* and CM 28 *ni*, respectively (see Fig. 8).<sup>51</sup> By now we are able to read the first formula as *pí-ni*, which combination, as suggested by Best, on the analogy of its Cypro-Minoan successor is likely to be interpreted as a reflex of Semitic *bn* “son (of)”.<sup>52</sup> It is interesting to note in this connection that on the eight-sided seal # 314 this formula is preceded and followed by a personal name—both being distinguished as such by the determinative of personal names, E14. In contrast with the latter use, however, CHIC044-049 “trowel”-“arrow” also occurs as a titular expression recalling Ugaritic *bn lky* “representative of the Lycians” —just like it is the case with its Cypro-Minoan successor on tablet RS 20.25.<sup>53</sup> Furthermore, the suggested identifications result in the reading of the third formula as *pí-ī*, which Best has seen reason to interpret as a honorific title corresponding to Egyptian *bīty* “king”.<sup>54</sup>

<sup>49</sup> CHIC: 19; for the Linear A values, see Meijer 1982: 38-44.

<sup>50</sup> Ventris & Chadwick 1973: 33; for the Linear A value, see Best & Woudhuizen 1988: 22; Woudhuizen 2004b: 99-100 or Woudhuizen 2006b: 40; see now section II.1 below.

<sup>51</sup> Masson 1971: 39; Masson 1974: 39-42; cf. Hiller 1985c: 82; 85; so also Saporetti 1976; Best & Woudhuizen 1988: 12, Fig. 14.

<sup>52</sup> Best & Woudhuizen 1988: 14.

<sup>53</sup> Gordon 1955: glossary, s.v.; Astour 1964: 194; Woudhuizen 1994: 512.

<sup>54</sup> Best 1996-7 [= Best 2011]: 118-119; cf. Woudhuizen 1997: 107 = Woudhuizen 2011c: 293; cf. 296. In Egyptian hieroglyphic the title *bīty* “bee-keeper” is expressed by the bee-sign (Gardiner 1994: L2), which also turns up in Cretan hieroglyphic (= sign CHIC020), where it appears in combination with CHIC044-

If we are right in our opinion that the third formula  $pi\bar{t}i$  is likely to be a rare writing variant of the much more common second formula CHIC044-005 “trowel”-“eye”, the latter probably represents  $pi\bar{t}i_6$ , also to be interpreted as Egyptian *bity* “king”.<sup>55</sup> This inference is further emphasized by the fact that the Cretan hieroglyphic “eye” sign is more remotely related to Luwian hieroglyphic \*191, which depicts three pairs of eyes in a row and stands for the all-seeing sun-god, *TIWATA*,  $ti_6$ —thus leading us to the syllabic value  $ti_6$  according to the acrophonic principle.<sup>56</sup> Along this same line of thought, then, the fourth formula CHIC005-044-049 “eye”-“trowel”-“arrow”, which, as we have noted above, is nothing but a shorthand writing variant of CHIC 044-049(-)044-005 “trowel”-“arrow”(-)“trowel”-“eye”, constitutes, on the analogy of Luwian hieroglyphic *infans*-*HANTAWAT*, a composite honorific title  $pi\bar{ni}[-pi\bar{t}i]_6 = bn\ bity$ , literally “son (of) the king”, denoting a high official ranking just below the king, translatable as “prince”.<sup>57</sup>

In my opinion, the closest possible match for the remaining three signs of the profane formulas (PF) nos. 1-6 which are in need of elucidation if we want to understand the meaning of the fifth and sixth formula is provided by Luwian hieroglyphic. Here we find exact equivalents of CHIC010 “leg”, CHIC031 “flower”, and CHIC036 “throne” in LH \*82  $ta_6$  (clearly a leg), LH \*153  $nú$  (as shown by Onofrio Carruba this syllabic value is acrophonically derived from Hittite and/or Khurritic *nurati*- “pomegranate”, a branch of which is what the floral design in question actually depicts),<sup>58</sup> and LH \*488  $ta_5$  (possibly a gate, which, as we have noted, is in fact the true nature of

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046 “trowel”-“adze” on the one hand (# 310) and CHIC044-005 “trowel”-“eye” on the other hand (# 018).

<sup>55</sup> Woudhuizen 1992b: 197-198.

<sup>56</sup> Laroche 1960, s.v. Cf. Best & Woudhuizen 1989: 125; Woudhuizen 1992a: 90-91. For the acrophonic value of LH \*191, see Woudhuizen 2011a: 26, note 43. Note that against the backdrop of the relationship of CHIC005 “eye” to LH \*191 *TIWATA*,  $ti_6$  (three pairs of eyes on top of each other) the corresponding sign in Linear A, L101 *zu*, must be assumed to have received a new value in the course of time, though it may be relevant to observe in this connection that its 17th century BC forerunner in the form of a radiant sun as attested for the legend on a bowl from the peak-sanctuary at Iouktas (IO Za 6) still expresses the original value  $ti_6$ , see section II.3 below.

<sup>57</sup> Best & Woudhuizen 1989: 124-126; Woudhuizen 1992b: 197-198; Woudhuizen 1997: 107 = Woudhuizen 2011c: 293.

<sup>58</sup> Carruba in Mouton 2002: 107; cf. Woudhuizen 2006b: 84-90.

the sign indicated by “throne”), respectively (see Fig. 25).<sup>59</sup> This results in the reading of the fifth formula as *ya-ta<sub>6</sub>-nú* and the sixth formula as *ta<sub>5</sub>-ru-nú*. Of these readings, *ya-ta<sub>6</sub>-nú* may well receive meaningful explanation in line with Ugaritic *ytn*, which Cyrus Gordon in his manual of the Ugaritic language takes as an infinitivus absolutus and which according to Stanislav Segert is used as the 3rd person sg. of the imperfect “he has given”.<sup>60</sup> Though at first sight somewhat enigmatic in the context, a close parallel for this expression seems to be presented by the element *PIA* “to give”, rendered by the hand sign LH \*66, on Middle Bronze Age Luwian hieroglyphic seals from North Syria.<sup>61</sup> The proper background of this expression is no doubt formed by a likewise Middle Bronze Age Cappadocian sealing which shows the hand sign with an *ankh*-sign immediately below it, thus making it clear that we are dealing here with a Luwian hieroglyphic variant of the Egyptian standard formula *dī ‘nh* “given life” (see Figs. 9-11).<sup>62</sup> It is true, however, that the *ankh*-sign, which in Crete is only attested as a decoration motif usually addressed as the Cretan “knot”, never occurs in combination with *ya-ta<sub>6</sub>-nú* on the Cretan hieroglyphic seals, so this remains only a hypothetical explanation. On the other hand, a more “down to earth” use of the fifth profane formula *ya-ta<sub>6</sub>-nú* as “he has delivered” certainly can not be ruled out in the Cretan context in view of the association of this formula with the combination *te-ru* on side 4 of seal # 309 (see Fig. 29), which corresponds to the Linear A equivalent of the Linear B transaction term *a-pu-do-si, telū* “delivery” and ultimately originates from Semitic *tēlū* (see section II.1 below).

Next, I myself have proposed to interpret the sixth formula *ta<sub>5</sub>-ru-nú* as a geographical name—as it seems not an unreasonable assumption for a recurrent element in the context of titles and a possible wish-formula. Being puzzled in the beginning, a solution

<sup>59</sup> Laroche 1960, s.v. I do not agree with Best 1996-7 [= Best 2011]: 116-117 that sign CHIC031 “flower” corresponds to L54 *re*, which lacks the “balls” typical of the pomegranate, and that sign CHIC010 “leg” corresponds to L21 *pū* (= Linear B *po*), which simply does not represent a leg, even when accounting for some stylization. These in my opinion mistaken readings are perpetuated in Best 2002 and Best 2003.

<sup>60</sup> Gordon 1955: 70; Segert 1984: 44; 74; cf. Best & Woudhuizen 1989: 127; Woudhuizen 2001: 612.

<sup>61</sup> Best & Woudhuizen 1989: 135-136.

<sup>62</sup> Canby 1975; Woudhuizen 2004a: 119-120.

seemed to present itself when I realized that according to Cretan writing devices the *r*-series is used to express the consonants [r] and [l] at the same time, whereas according to Luwian hieroglyphic scribal traditions syllables of CV type are equally applied to render VC sounds.<sup>63</sup> In this manner, then, we may well arrive at the reading *Atlunu*, which resembles the mythical Atlantis from our literary sources too much to be dismissed as accidental! Considering the distribution of the findspots of the total amount of 116 seals with profane formulas—in so far as this is reported—, which particularly affects the northern zone of Crete between Knossos in the west and Kato Zakro in the east, but, since the discovery of the seal from Vrysinas near Rethymnon<sup>64</sup>—so that the find from Kythera, # 267, can no longer be dismissed as an importation—may now reasonably be argued to have included the coastal zone of northern Crete in its entirety (see Fig. 12), our geographic name *Atlunu* is most likely to have a bearing on this particular region. If so, the disastrous Santorini eruption at the end of Late Minoan IB, *c.* 1450 BC—of which the dating, which is so heavily discussed and confused by a much too high calibrated C<sup>14</sup> date of 1628 BC, is assured by tephra from the Minoan eruption of the Santorini vulcano in a layer dating from an advanced stage of the reign of Tuthmosis III (1479-1425 BC) at Tell el-Dab‘a-Avaris<sup>65</sup> and can, amongst other arguments,<sup>66</sup> be further confirmed by the discovery of impressions of *one and the same signet ring* from on the one hand the destruction level at Akrotiri, usually assigned to Late Minoan IA, and on the other hand Late Minoan IB layers at Hagia Triada and Sklavokambos (see Fig. 13)<sup>67</sup>—, which was particularly devastating for the northeastern zone of Crete, may well serve as a *terminus ante quem* for the currency of seals with our sixth profane formula.

Finally, the seventh profane formula (PF) shows two signs, CHIC056 (= E24-25) and CHIC034 (= E114), with Luwian hiero-

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<sup>63</sup> Best & Woudhuizen 1989: 127; Woudhuizen 1992a: 79; Woudhuizen 2001: 612. For an example of CV writing for a VC sound in Luwian hieroglyphic, compare *Titarma*<sup>UTNA</sup> “the land of Attarima”. Note that Castleden 1998: 168 mistakenly holds that our geographic name *ta<sub>s</sub>-ru-nú* comes from Linear B.

<sup>64</sup> Find reported on the internet, see: <http://archaeologynewsnetwork.blogspot.com/2011/hieroglyphic—sealstone—discovered—in.html?m=1>.

<sup>65</sup> Bietak 2000: 194. Cf. Höflmayer 2012 on the relationship between “scientific” and “traditional” dating, the gist of the argument being that the better the quality of the C<sup>14</sup> sample is the closer the resulting date matches the traditional one.

<sup>66</sup> Woudhuizen 1992a: 47-79, esp. 64; see now section I.3 below.

<sup>67</sup> Krzyszkowska 2005: 190, no. 370; Woudhuizen 2009: 56.

glyphic equivalents, viz. LH \*327 *SASA* and LH \*228 *UTNA*, whereas the third one, CHIC057 (= E27), is suggestive of a stylized variant of Egyptian A21, a man with a stick and a handkerchief, rendering the value *sr* “official, noble”.<sup>68</sup> Reasoning from these identifications, this formula may reasonably be assumed to refer to the class of object in question, seals, and to mark the beginning of the legend. Furthermore, it serves as a marker of the fact that the seal in question is valid only for officials in a geographical entity often specified later on in the text. Note that the officials are likely to be of lower rank than a *šarru* “king” as recorded for the Linear A texts from Hagia Triada and the Cretan hieroglyphic ones of the Phaistos disk (# 333) and the seal with the largest legend (# 294), see sections I.10 and I.6 below.

In retrospect, it appears that the profane formulas (PF) bear testimony of: (1) a kinship term connected with personal names (*bn* “son (of)”), (2) titles (*bity* “king”, *bn bity* “prince” and *bn* “representative”), (3) a geographic name (*Atlunu*), (4) a wish-formula or transaction term (*ytn* “granted <life>” or “he has delivered”) , and (5) an introductory formula “seal-land-official(s)”. As far as linguistics is concerned, apart from an Egyptian loan, we are, just like in case of the libation formula, confronted with Semitic, again.

The question one may ask at this point is: are these readings plausible? To answer this question, we may have a look at comparable objects from the neighboring cultures. If we take for example Luwian hieroglyphic seals like that of Tarkondemos, king of Mira, and Kuzitesup, king of Karkamis, both dating to the late 13th century BC or early 12th century BC, it is immediately clear that personal names, titles, and place or country names are precisely the categories to be expected (see Figs. 14-16). In addition, the Egyptian evidence in the form of, for example, the titulary featuring the names of Tuthmosis III (1479-1425 BC) is characterized by a wish-formula, *di ḥnh* “granted life”, which apparently has been exported already during the Middle Bronze Age to Byblos, as it can be traced on stamp seal 6593, and even further north to Anatolia, where it appears, as we have already noted, in MBA Luwian hieroglyphic variant as *PIA vita* “granted life” on cylinder seal impression Walters Art Gallery 48.1464 (see Figs. 9-11). More in general, another wish-formula in the form of the combination of \*369 *vita* “life” and \*370 *ASU* “good” is extremely common on Luwian hieroglyphic seals.

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<sup>68</sup> For the identification of this sign, I am indebted to Jan Best who first suggested it during our meetings of the Alverna Research Group.

In the preceding, we have already noted that the evidence of the hieroglyphic version of the libation formula (LF) dates from the Early Minoan III/Middle Minoan I transitional period, *c.* 2000 BC. Now, the earliest attestation of one of the profane formulas (PF), which concerns CHIC044-049 *pí-ni* corresponding to Semitic *bn* “son (of)”, can be found on seal # 213 which is generally assigned to the beginning of the 2nd millennium BC, say also *c.* 2000 BC (see Fig. 17). The name of the owner of this seal, whose function happens to be expressed by *pí-ni* in its titular use recalling that of Semitic *bn* as “representative”, is expressed by the bucranium or ox-head sign, corresponding to LH \*105 *UWA*, with four vertical strokes added to its top side in like manner as these are placed on the cheek of its Luwian counterpart in order to render the value *MUWA* (LH \*107). In actual fact, we are dealing here with a ligature of LH \*105 *UWA* with L \*391 *mi*, *má*, *m* (= *m+UWA*), and the personal name hence reads *Muwas*—a typical Luwian name.<sup>69</sup> As far as their values are concerned, both of these Luwian signs can be traced back to a PIE root, \**g<sup>w</sup>ow-* “ox” in the former case, with for Luwian regular loss of the voiced velar \*[*g<sup>w</sup>*],<sup>70</sup> and \**mei-* “less” in the latter case, reflexes of which are used for the expression of the numeral “4” as within the Indo-European system of counting this number is considered one less than the full hand for “5”. In similar vain, the “bird of prey” (E80) for the expression of the value *ra* in the libation formula (LF), variously written as *a-sa<sub>1</sub>-sa<sub>1</sub>-ra-me* or *a-sa<sub>1</sub>-sa<sub>1</sub>-ra-me* or *a-sa<sub>1</sub>-sa<sub>1</sub>-ra-mà* “oh Asherah!” corresponds to LH \*130-133 *ARA*, *ar*, *ra*, which in turn can be traced back to the PIE root \**h<sub>2</sub>er-/h<sub>3</sub>or-* “eagle”, with incidental loss of laryngeal \*[*h<sub>2</sub>*] as also traceable in Luwian (see Fig. 6a).<sup>71</sup> Even though the language recorded, then, turns out to be Semitic (enclitic particle *-me* or *-mà*, honorific title *pí-ni* “representative”), the earliest Minoan scribes as we have just noted made use of at least three signs corresponding to Luwian hieroglyphic equivalents of which the value shows a reflex of a PIE root.

However, it should be realized that the situation with the script in this early period is already more complex than it seems so far as there can also be detected among the earliest attestations of the libation formula and profane formula just mentioned signs originating from Egyptian hieroglyphic and the Levant. It so happens, namely,

<sup>69</sup> Laroche 1966: 122, no. 832 (*Mu-u-wa-aš*).

<sup>70</sup> Woudhuizen 2011a: 410-412.

<sup>71</sup> Woudhuizen 2011a: 412-413; presumably to be ascribed to influences from an Old Indo-European or Pelasgian substrate, see further section III.1 below.

that the first category is represented by the “sepia” sign CHIC019 or E60, which originates from EgH O30 *shnt* “supporting pole”<sup>72</sup> and is used for the expression of the related syllabic value *sa*. Furthermore, the origin of CHIC044 or E18 “trowel” can be positively traced back to EgH X8 *di* through the medium of its provincial variant as attested for Byblos stamp seal 6593, sign 9 (see Fig. 10), and under the condition that its value is replaced by *pi* as acrophonically derived from the Luwian equivalent of Egyptian *di* “granted”, *piya-* “to give”. Finally, the sign in form of the double axe, CHIC042 or E36, which in the libation formula expresses the primary vowel *a*, can be positively linked up with a counterpart in the Byblos script (BS B12/E1), the latter, as we have noted before, being devised in the final decades of the 18th century BC but presumably having a longer history in the region of the Levant.<sup>73</sup> Whatever the extent of this latter inference, it primarily concerns us here that in the earliest attestations of Cretan hieroglyphic the script can be shown to be of composite nature, signs originating from Luwian hieroglyphic being combined with those originating from Egyptian hieroglyphic and the Levant. In this sense, then, Cretan hieroglyphic, though, as we will see in the next section, most intimately related to Luwian hieroglyphic, should be considered a script *sui generis* and most adequately defined as *Luwianizing*.

Egyptian hieroglyphic has been devised in Egypt already in the late 4th millennium BC and, as I will argue in a section below (see appendix II), was mastered by Minoan scribes from *c.* 2000 BC onwards. But what about Luwian hieroglyphic from Anatolia? It is a *conditio sine qua non* for our scenario as developed in the preceding pages that this must have been already in use from the transitional period of the Early Bronze Age to Middle Bronze Age *c.* 2000 BC onwards.

A first observation relevant in this connection is that the Luwian divine triad *Santas*, *Kupapa*, and *Tarḫu(nt)* as attested for the magic spell against the Asiatic pox in the language of the Keftiu preserved in an Egyptian hieroglyphic text from the reign of Amenhotep III (1390-1352 BC), is already attested for the Kültepe-Kanesh texts, dated *c.* 1920-1750 BC, be it in part indirectly in form of the divine name *Kubabat* and the onomastic elements *Kubabat*, *Santa-*, and *Tarḫu-* as in, for example, the theophoric personal names *Ṣilikubabat*

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<sup>72</sup> For this identification I am indebted to Jan Best who first suggested it during our meetings of the Alverna Research Group.

<sup>73</sup> Woudhuizen 2006b: 128-129.

“Mein Schatten ist Kubabat”, *Santahsu*, and *Tarhuala*.<sup>74</sup> The radiation of the cult of this Luwian divine triad—which, in view of the evidence provided by the stamp-cylinder seal Louvre AO 20.138, is probably already attested for western Anatolia during the late 18th or early 17th century BC,<sup>75</sup> but of which two members are recorded for the damnation formula on the stele or orthostat from Torbalı near İzmir dating from the final phase of the Late Bronze Age (LBA)<sup>76</sup>—, to Crete as suggested by the Keftiu spell actually happens to be in like manner reflected in onomastics as exemplified by, for instance, Linear B *e-ri-sa-ta* and *e-ri-ta-qi-jo* from the Knossos archives, bearing testimony of the related onomastic elements *Sa(n)ta-* and *Ta(r)qio-*, which occur here in combination with Khurritic *ari-* as first element after the type of *Aritesup*. Similarly, in the frame of our discussion of the MN *rwwwntii* (in Helck’s vocalized transliteration *Ru-w-an-ta*) from the Egyptian exercise in writing Keftiu names as found on a writing board dating back to the period of the early 18th dynasty (1550-1450 BC), which corresponds to Luwian *Ruwantias* or *Runtias*, we have pointed out in the above that the outcome of the phonetic development *Kuruntiyas* > *Kruntiyas* > *Runtiyas* (< PIE \**kerh<sub>1</sub>-* “horn”) is already attested for Luwian names in the Anatolian Kültepe-Kanesh texts (c. 1920-1750 BC) in view of the MNs like *Ruwa<sup>n</sup>tía* and *Ru<sup>n</sup>tía*.<sup>77</sup> It is interesting to note in this connection that this name or the value *rú* acrophonically derived from it is written in both Luwian hieroglyphic (LH \*102-103) and Cretan hieroglyphic (CMS VI, 1, no. 97, side a;<sup>78</sup> CHIC028 or E99) with the deer with prominent antlers’ sign or, as a *pars pro toto*, the antler sign, which in the Cretan case are already attested for the earliest group of seals.<sup>79</sup> To this it might be added that the for Luwian regular loss of the voiced velars which we came across in the writing of the onomastic element *m+UWA* “Muwas” is, as evidenced by the onomastic elements *nana-* < PIE \**ǵnh<sub>1</sub>-* “brother” and *wawa-* < PIE \**g<sup>w</sup>ow-* “ox”, also already attested for the Kültepe/Kanesh period.<sup>80</sup>

<sup>74</sup> Hirsch 1961: 28 (*Kubabat*); Laroche 1966: 175, nos. 1255-1256; 176, no. 1266; 177, no. 1273 (*Tarh-*); 156, nos. 1097-1098 (*Sa[n]ta-*); cf. Woudhuizen 2006-7: 127, note 20.

<sup>75</sup> Woudhuizen 2006-7: 127.

<sup>76</sup> Oreshko 2013: 373-386, esp. 375 and 384; see section II.9 below.

<sup>77</sup> Yakubovich 2010: 211-212.

<sup>78</sup> See section I.6, Fig. 44 below.

<sup>79</sup> Woudhuizen 2006b: 130, Fig. 36 (1) c; 131, Fig. 37 (2) c or see section I.2.

<sup>80</sup> Yakubovich 2010: 211-212; cf. Woudhuizen 2011a: 410-412.

Alongside the evidence for Luwian onomastics in the Kültepe-Kanesh texts (*c.* 1920-1750 BC), it is of prime relevance to our topic whether Luwian hieroglyphic as a script was already in existence at the time related signs first appear in the context of Minoan Crete, i.e. from *c.* 2000 BC onwards. Fortunately, this question can now be answered with a wholehearted “yes”. The earliest evidence of Luwian hieroglyphic is provided by a stamp seal from Beycesultan discovered in a layer dividing the Early Bronze Age (EBA) level VI from that of the Middle Bronze Age (MBA) level V, so dating *c.* 2000 BC (see Fig. 18).<sup>81</sup> It is incised with signs executed in a cursive manner, suggesting that the script has already been in use for some period of time, and on the basis of its contents can be attributed to a dignitary (“overseer of 1000 men”) of the town and river-land of *Mira*. Accordingly, it lies at hand to assume that *Mira* was the Bronze Age name of present-day Beycesultan.

However, next to this seal there are a number of other Luwian hieroglyphic seals or sealings dating from the Middle Bronze Age. In my latest contribution to the topic, I have (including the one from Beycesultan) catalogued as much as 18 Middle Bronze Age Luwian hieroglyphic seals or sealings,<sup>82</sup> showing a repertory of as much as 41 individual signs. From a chronological point of view, this group can be divided into three periods: (1) the EBA/MBA transitional period, *c.* 2000 BC, which, as we have just noted, is represented by 1 inscription, the stamp seal from Beycesultan-*Mira*; (2) the period of the *karum* of Kültepe-Kanesh, *c.* 1920-1750 BC, represented by 12 inscriptions; and (3) the period of Tell Atchana-Alalakh VII, *c.* 1720-1650 BC, to which 5 inscriptions can be assigned (*cf.* Table II).

date	title	greeting formula
Kültepe-Kanesh <i>c.</i> 1920-1750 BC	<i>TAPAR-sà</i> <i>Labarša</i>	<i>PIA(-á) vita</i>
Tell Atchana-Alalakh VII <i>c.</i> 1720-1650 BC	<i>ta?-PÁRANA</i> <i>Labarnaš</i>	<i>vita &amp; ASU</i>

Table II. Overview of the dating criteria for MBA LH seals or sealings.

<sup>81</sup> Woudhuizen 2016: 171-176.

<sup>82</sup> Woudhuizen 2015b: 22-24; note that 1 inscription entails a graffito on a pot from Kültepe-Kanesh phase Ib, see Hawkins 2011.

Now, if we take a look at the distribution pattern of the seals and sealings and make a distinction between seals on the one hand and sealings on the other on the basis of the assumption that the find spot of a seal informs us about the place of origin of its owner while that of a sealing merely is indicative of the owner's contacts within the frame of trade and diplomacy, it so happens that the first category of evidence shows a concentration in southwest Anatolia, especially the region from Konya via Beycesultan to Aydin, but also includes Tarsos in Cilicia (from which the seal of Indilima, a devotee of the goddess *Ishara*, presumably originates), Klavdia on Cyprus and Gaza along the coast of the southern Levant, whereas the second category of evidence has a bearing on sites in inner Anatolia (Kültepe, Acemhöyük, Eskiyapar) and the inland side of the Levant (Tell Atchana).<sup>83</sup> If we further have a look at the names mentioned in the sealings, it so happens that these are paralleled for later kings of the western Anatolian lands Arzawa or Assuwa by and large corresponding to later Lydia (*Tarkuwalwas* of sealing Alalakh no. 154 [see Fig. 21]) and the Sekha river-land along the lower Maiandros (*Muwawalwas* in the sealings Kültepe-Kanesh no. 73 and Acemhöyük III-17). On the basis of this evidence, then, it lies at hand to conclude that southwest Anatolia is the cradle of the Luwian hieroglyphic script, being devised in order to facilitate long distance trade and diplomatic contacts with inner Anatolia and the Levant—regions where literacy was already extant in the form of the Akkadian cuneiform script. Or, in the words of Hans Gustav Güterbock “für welche Sprache wurde die Bilderschrift entwickelt?": “von den Luwiern, für das Luwische, in luwischen Landen”.<sup>84</sup>

Within the frame of the foregoing discussion of Middle Bronze Age Luwian hieroglyphic inscriptions, a special position may well be attributed to two seals from Henri Frankfort's First Syrian Group, the Erlenmeyers' seal (see Fig. 19) and Hogarth no. 154 (see Fig. 20), not only because these seals inscribed with Luwian hieroglyphs are “Fremdkörper” in the Syrian milieu, but also because we appear to be confronted here with a direct connection with Middle Minoan Crete and its Luwianizing hieroglyphic script. On the basis of their legend, in which the same personal name, *Tarkuntimuwas*, recurs in two different variant writings one of which is affected by rhotacism of the original voiced dental \*[d] (cf. Ugaritic *Trǵds* [Houwink ten Cate 1961: 126], Cilician Ταρκόνδημος or Ταρκονδίμοτος [Houwink ten

<sup>83</sup> Woudhuizen 2015b: 26, Map III; see Fig. 23.

<sup>84</sup> Güterbock 1956: 518.

Cate 1961: 128], Lycian Τροκονδας, etc. [Houwink ten Cate 1961: 126], and the related Carian name of a syngeneia Ταρκονδαρεῖς [Adiego 2007: 332]),<sup>85</sup> the two seals may be grouped together in the following fashion if indeed the personal name in question has a bearing on *one and the same person*:

MN	ranking	seal
1. <i>Unaras</i>	superior of <i>Tarkunaramuwas</i>	Erlenmeyers' seal
2a. <i>Tarkunaramuwas</i>	inferior of <i>Unaras</i>	Erlenmeyers' seal
2b. <i>Tarkuntimuwas</i>	superior of <i>Atinas</i>	Hogarth no. 154
3. <i>Atinas</i>	inferior of <i>Tarkuntimuwas</i>	Hogarth no. 154

Table III. Analysis of the legends of the Erlenmeyers' seal and seal Hogarth no. 154 from Henri Frankfort's First Syrian Group.

Now, on the basis of his name, with *Tarkuntimuwas* we appear to be dealing with a dignitary from the western Anatolian country of Arzawa or Assuwa as in shorthand form *Tarkuwas* it is recorded for a Hittite vassal king of Mira in the sense as the successor-state of Arzawa in the rock monument at Karabel near İzmir.<sup>86</sup> On the other hand, his henchman *Atinas* may, for the close resemblance of his name to Greek Ἀθίνα(ϊος), reasonably come into consideration as originating from Attica in the Greek mainland. If so, the highest ranking dignitary, *Unaras*, no doubt refers to a dignitary at home in North Syria—the contacts of the two “westerners” with this latter explaining for the fact that their seal presumably ended up in the last mentioned region. However this may be, what primarily concerns us here is that the name of Tarkuntimuwas is also attested for a Cretan hieroglyphic seal from Malia, where it is written by three signs, each covering one side of the three-sided seal, namely the goat head sign E65 *TARKU*, the non-predatory bird E82 *ti*<sub>5</sub>, and the ligature of the bucranium with four strokes on top of it as attested for seal # 213, c (see Fig. 22).<sup>87</sup> Against this backdrop, then, it stands to reason to

<sup>85</sup> For rhotacism in this early period compare *Mira* < \**Mida* < PIE \**med*<sup>h</sup>*iyos* “middle”, indicative of the “middleground” of a federal sanctuary of the Luwians in like manner as Lesbian *Messon* and Celtic *Mide* in Ireland, see Woudhuizen 2016: 88-90.

<sup>86</sup> Hawkins 1998, who, however, wrongly takes the goat head sign LH \*101 *TARKU* as a variant of the donkey head sign LH \*100 *TARKASNA*, *ta*<sub>4</sub>.

<sup>87</sup> Detournay, Poursat & Vandenabeele 1980: 160, Fig. 231; cf. Woudhuizen 2009: 202.

assume that the west-Anatolian dignitary Tarkuntimwas had a trading station at Malia to facilitate his overseas contacts with North Syria in the Levant. Similarly, his henchman Atinas could well have been involved in the transport of metal ores from the mines of Laurion in Attica, which according to Philip Betancourt were already exploited for the Cretan market from the Early Minoan III/Middle Minoan I transitional period onwards (see Fig. 23).<sup>88</sup> In any case, an interpretation along these lines of the set of three seals strikingly coincides with information from the Mari tablets dated to the reign of Zimrilim during the first half of the 18th century BC according to which, in tablet A 1270, line 28 (*a-na Kap-ta-ra-i-im* “to the Cretan”) a Cretan is staged as a participant in the tin-trade (AN.NA = *annaku-* “tin”) in direct association with a Carian mentioned in line 30 (*[a-na] Ka-ra-i-[i]m* “to the Carian”)!<sup>89</sup> As the first transaction entails the mediation of an interpreter, and the second is explicitly stated to have taken place at Ugarit along the Levantine coast opposite to Cyprus, it may reasonably be suggested that the language of the Cretan in question was something other than Semitic and that both transactions actually took place in Ugarit.<sup>90</sup>

It has been suggested by Jan Best that the international trade in tin, important from *c.* 2300 BC onwards because of the progressive replacement of arsenic bronze by the harder alloy of copper with tin, was the prime mover in the development of Middle Minoan Crete into a literate society with a palatial culture—tin being the most scarce raw material, available in the west at the time in significant quantities only in Bohemia and Cornwall (see Fig. 24).<sup>91</sup> This view can be further underlined by the fact that the earliest Cretan seals bear the testimony of the interest of their one time owners for ingots, ships, and pots—the latter no doubt to be identified as *crucibles*.<sup>92</sup>

Whatever one may be apt to think of this explanatory model, fact is that of the 41 individual signs attested for Middle Bronze Age Luwian hieroglyphic inscriptions as much as 32 (i.e. more than 75%) are paralleled for Cretan hieroglyphic as deducible from our list in the following section (abbreviation B = Bossert 1932).

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<sup>88</sup> Betancourt 2008: 212; 214.

<sup>89</sup> Dossin 1970: 99.

<sup>90</sup> Woudhuizen 2009: 203 with note 2.

<sup>91</sup> Best in Best & Woudhuizen 1988: 2-4.

<sup>92</sup> Woudhuizen 2006b: 126-132; the identification of the pots as crucibles has been first suggested by Jan Best in an unpublished paper. See section I.2 below.

## 2. SIGNARY

	CH	LH	value	EIA	LBA	MBA
1.	E2	*1	AMU	X	X	
2.	PD3	*10	ḤARMAḤI, [ḥár]	X	X	
3.	E73	*13	PÁRA	X	X	
4.	# 271, 3	*14	PÁRANA	X		X
5.	PD6	*15	<b>domina</b> , mi <sub>4</sub>	X	X	X
6.	PD2	*19	ÁMU, á	X	X	X
7.	E16	*29	tá	X	X	
8.	PD4, E7	*31	ḤIṢḤIA, [ḥì]	X		
9.	E57, PD25	*35	<b>navis</b> , na	X	X	X
10.	E10	*41	TÀ, tà	X	X	
11.	PD8	*56-57	KATA, kà; ANAN	X	X	X
12.	E9	*66	PIA, pi; ár	X	X	X
13.	PD1, E27	*80-81	SARU(+r)+má	X	X	
14.	E11	*82	TA <sub>6</sub> , ta <sub>6</sub>	X	X	
15.	DA8	*85	l(a)	X	X	
16.	PD5	*90	TIWA, ti; PATA	X	X	X
17.	PD29	*97	WALWA, wal, ú	X	X	X
18.	# 300, 2	*100	TARKASNA, ta <sub>4</sub>	X	X	X
19.	E65	*101	TARKU	X	X	X
20.	E99	*102-103	KURUNT; rú	X	X	X
21.	E63	*104	SÁSA, sà	X	X	X
22.	# 213, 1	*105	WAWA, UWA, u	X	X	
23.	E62	*107	MUWA (m+UWA), mu	X	X	X
24.	PD26	*108	SURNA, sú	X		
25.	E64	*109	MALIA, ma <sub>6</sub>	X	X	
26.	E67, PD30	*110	ma	X	X	
27.	MA12	*111	ḤAWA, ḥa <sub>4</sub>	X	X	X
28.	E68	*115, 41 <sub>3</sub>	TAPAR, tà	X	X	X
29.	E77, PD28	*125	lí	X	X	X
30.	E82, PD32	*128	TINTAPU, ti <sub>5</sub> ; zì; i <sub>5</sub>	X	X	X
31.	E79, PD31	*130-133	ARA, ar, ra	X	X	X
32.	E59, PD33	*138	wa <sub>8</sub>	X		X
33.	E84	*139-140	NATARA, [na <sub>6</sub> ]		X	
34.	E97	*151	TELIPINU, [te]		X	
35.	E92	*153	NURATI, nú	X	X	
36.	PD36	*160	WIANA, wi; TUWARSA	X	X	
37.	PD24	*167	[PARNA, pa <sub>5</sub> ]	X		

	CH	LH	value	EIA	LBA	MBA
38.	E100	*172	(+)tì	X	X	X
39.	E88	*174	sá	X	X	X
40.	E96	*175	LALA, la	X	X	
41.	# 303, 4	*179-180	<b>hordeum</b> ; HWA	X		
42.	PD12	*181	TURPI, [tu <sub>6</sub> ]; pa <sub>4</sub>	X		
43.	E112	*186/445	*luk-, lu		X	
44.	PD38	*189	WASU, [wa <sub>10</sub> ]	X	X	
45.	PD11	*190	<b>sol suus</b>	X	X	X
46.	E5	*191	TIWATA, ti <sub>6</sub>	X	X	
47.	PD39	*199	TARHUNT; TÉSUP; hâ	X	X	X
48.	E115, PD45	*212, 214	HAPA; NAHAR, ná	X	X	X
49.	PD18, E42	*223	sa <sub>6</sub>	X		
50.	E114, PD14	*228	UTNA, tu <sub>5</sub>	X	X	
51.	E46	*247	PARNA, pâr, [pa <sub>5</sub> ]	X	X	
52.	E41	*267	WANA, wa <sub>9</sub>	X	X	
53.	MA13	*268	HWI, hù	X	X	
54.	# 236, 1	*271	<b>arcus cum sagitta</b>		X	
55.	E17, PD16	*278	li	X	X	
56.	E12, PD15	*283-284	TUZI		X	
57.	# 277, 1	*300	HASU, ha <sub>8</sub>	X		
58.	# 293, 3	*306	hí		X	
59.	DA12	*308	[ha <sub>5</sub> ]	X		
60.	E15	*312-313	ZITI, zí	X	X	X
61.	E Fig. 70b	*314-315	KARKARIS, ká	X	X	
62.	PD44	*318-319	TESUP, tes, té, tí	X	X	
63.	E24-5	*327	SASA, sa <sub>5</sub>	X	X	
64.	DA11	*332	NAWA, na <sub>4</sub> , nā <sub>4</sub> ; [hù]	X	X	
65.	PD20	*337	yá	X	X	
66.	E47	*346	kí	X	X	
67.	B Abb. 3	*360, 362	MASANA, ma <sub>4</sub> ; sí	X	X	
68.	B p. 13	*369	<b>vita</b> ; WASU, wa <sub>12</sub>		X	X
69.	PD43	*370	ASU, [as], su	X	X	X
70.	E14, PD47	*383, 1	(determ. of PN)	X	X	
71.	PD46	*383, 2	[+ti], +r, +ra, +ri	X	X	X
72.	# 213, 1	*391	mì, má, m	X	X	
73.	# 294, 3	*397-398	TINATA/I, ta?	X	X	X
74.	# 294, 3	*400	“1000”	X	X	X
75.	E122	*415	sa	X	X	
76.	LF VIIb	*419	mà, mì	X	X	X
77.	E138	*438	<b>magistratus</b> (torque)		X	

	CH	LH	value	EIA	LBA	MBA
78.	# 293, 3	*439	<i>wa</i>	x	x	
79.	# 303, 4	*446	<i>ki</i>	x	x	
80.	# 297, 3	*450	<i>à</i>	x	x	x
81.	# 271, 2	*451	<i>hur</i>		x	
82.	E19	*488	<i>ta<sub>5</sub>, ti<sub>4</sub></i>	x	x	
83.	MA6	*499	<i>ti<sub>8</sub></i>		x	
84.	E69	*529	<b><i>aper<sub>2</sub></i></b>		x	
85.	PD17	*533	<b><i>anulus</i></b>		x	
			Total:	73	75	32

This overview of the relationship between the signary of Cretan hieroglyphic with that of Luwian hieroglyphic takes as its starting point Woudhuizen 2009: 24-26; for the numbering of LH signs not included in Laroche 1960, see Woudhuizen 2011a: 20-38; for the differentiation according to the period of the use of the LH signs, see Woudhuizen 2011a: 45-57; for the latest overview of the MBA syllabary, see Woudhuizen 2015b: 21-22 presenting 13 extra signs as compared to the aforementioned section of Woudhuizen 2011a. Note, finally, that the values between square brackets are attested for CH only.

The following comments to the given overview of the signary are of relevance. In the first place, it should be noted that the hare sign E68 or CHIC014, corresponding to \*115 *TAPAR* and \*41<sub>3</sub> *tà*, is easily mixed-up with that of the donkey \*100 *TARKASNA*, *ta<sub>4</sub>* and, in contrast to the latter, thus far lacks a certain attestation in Cretan hieroglyphic. Next, it is worth noting that PD24 depicts a Lycian house in frontal view (Mellink 1964), whereas E46 or CHIC039 the rectangular ground-plan of the otherwise current house. Furthermore, DA11, apparently rendering the value *hù* in Cretan hieroglyphic, may, if I reconstructed the sign correctly, considering its correspondence to the negative sign in Luwian hieroglyphic, \*332 *na<sub>4</sub>* or *nā<sub>4</sub>*, have been used by mistake by the scribe instead of the relative sign \*329 *HWA*, *hù*. Finally, it deserves our attention that human and animal heads may be rendered now “en face” and then “en profile”, as in case of the correspondence of DA4 to PD3, E63 or CHIC011 to \*104, E67 to \*110, and # 213, 1 “bucranium” to E62 or CHIC012 and \*107; this latter instance is instructive, since the ox (more exactly:

bull) sign in Luwian hieroglyphic is initially rendered “en face” on seals from the Middle Bronze Age, whereas it subsequently tends to be depicted three quarters as it is the case on Late Bronze Age seals or sealings in order to end up “en profile” at the time of the Early Iron Age—the position already attested for its in this respect “modern” Cretan counterpart E62 or CHIC012 (see Fig. 25)!

### 3. CONTEXT

In this section, the contexts in which the signs of Luwian hieroglyphic background as assembled in our list of the previous section feature are, if these appear to be reasonably clear, presented. Note that in this section the sign concerned is rendered in bold type, whereas the Latin transcriptions of signs of which the value is unknown are for contrast underlined here instead of in bold type as in the preceding section and the ones following it. Abbreviation thus far unspecified: QMu 1980 = Detournay, Poursat & Vandenabeele 1980.

#### E2

*AMU* *TARKU* “I (am) Tarkus” # 310, 3

#### PD3

*sa*<sub>5</sub>-***hár***-*wa* “Skheria” # 328  
*á+ti sa*<sub>7</sub>-***hár***-*wa*? “in Skheria” # 332, 1  
*á-tà* -*wa*? *á-hár*-*hù* “Akharkus has made (3rd pers. sg. of the past tense)” # 332, 2  
*sa*<sub>3</sub>-***hár***-*wa*<sub>10</sub> “Skheria” # 333, A28; 31

#### E73

*tì*-***PÁRA*** “tabar(na)s” CMS VI, 1, no. 97, b  
*pí*-*ta*<sub>5</sub>-***PÁRA*** “Pittaparas” # 255, 2; # 300, 1  
***PÁRA***-*tá*-*rú* “Bartaras” # 296, 2  
<sup>*anulus*</sup>*lí*-***PÁRA*** “Lipari” # 301, 4  
*’tá*-***PÁRA*** *pí*-*ní* *’nú*-*wa* “Daparas, son (of) Nuwas” # 314, 1-3  
***PÁRA***-*custos* <*pí*>-*ti*<sub>6</sub>-*pí*-*ní* ***PÁRA***-*custos* “viceroy, prince, viceroy” # 314, 4-5  
*i+à l(a)*-***PÁRA*** “these double axes (N-A(n) pl.)” # 332, 1

# 271, 3, lower sign of the ligature  
*la*+*PÁRANA TARKU-MUWA* “labarnas  
 Tarkumuwas”

# 271, 3

## PD6

*mi*<sub>4</sub>-*sa*<sub>6</sub> “of my (G sg.)”

# 333, A8

*mi*<sub>4</sub>-*sa*<sub>6</sub> *anulus*-*sa*<sub>1</sub> “of my realm (G sg.)”

# 333, A24

*mi*<sub>4</sub> *ta*-*ti*<sub>5</sub> -*hà*-*wa*<sub>8</sub> “and for my father (D sg.)”

# 333, B16

*á*-*mi*<sub>4</sub> *ta*-*ti*<sub>1</sub> “for my father (D sg.)”

# 333, B28

## PD2

*á*+*tì* *wa*<sub>1</sub>-*ti*<sub>1</sub> “in the town (D sg.)” (?)

# 109a

*’á*-*à* “Aas”

# 297, 3

*á*+*ti* *sa*<sub>1</sub>+*hár*-*wa*? “in Skheria”

# 332, 1

*á*-*tà* -*wa*? *á*-*hár*-*hù* “Akharkus has made (3rd  
 pers. sg. of the past tense)”

# 332, 2

*á*-*tu*<sub>6</sub> *mi*<sub>1</sub>-*SARU* “in the Mesara”

# 333, A1; 26

*á*-*tu*<sub>6</sub> *hì*-*ya*<sub>1</sub>-*wa*<sub>8</sub> “in Akhaia”

# 333, A5

*á*-*tu*<sub>6</sub> -*ti*<sub>5</sub> *ti*<sub>1</sub>-*wa*<sub>10</sub>+*ti* *TARHU(NT)* “to you brings  
 (3rd pers. sg. of the present tense)  
 Tarkhunt”

# 333, A12-13

*á* *ku*-*na*-*sa*<sub>3</sub> *ti*<sub>1</sub>-*sa*<sub>6</sub> <sup>L</sup>*SARU*+*ti* “Knossos (is)  
 part of your sworn kingship (G sg.)”

# 333, A14-15; 20-21

*á*-*tu*<sub>6</sub> *ra*-*sú*+*ti* “in the Lasithi (D sg.)”

# 333, A16; 19; 22

*á*-*tu*<sub>6</sub> *i*-*ya*<sub>1</sub>-*sa*<sub>2</sub> “in (the territory) of these (G  
 sg. used for pl.)”

# 333, B1

*á*-*du* -*ti*<sub>1</sub> *TIWA*+*ti* “your (lord) Haddu brings  
 (3rd pers. sg. of the present tense)”

# 333, B3

*pa*<sub>5</sub>-*ya*<sub>1</sub>-*ta* *á*-*sú*-*wi*-*ya*<sub>1</sub> “Assuwian Phaistos  
 (endingless A(m/f) sg.)”

# 333, B10-11

*á*-*har*<sub>1</sub>-*ku* *SARU* “Akharkus (was) king”

# 333, B17

*á*-*mi*<sub>4</sub> *ta*-*ti*<sub>1</sub> “for my father (D sg.)”

# 333, B28

## E16

*PÁRA*-*tá*-*rú* “Bartaras”

# 296, 2

*’tá*-*PÁRA* *pí*-*ni* *’nú*-*wa* “Daparas, son (of)  
 Nuwas”

# 314, 1-3

## E7, PD4

*hì*-*à*-*wa*<sub>9</sub> “Akhaia”

# 246, 2

*hì*-*nú*<sup>UTNA</sup> “Canaan”

# 276, 3

<b>HÌ</b> (abbr. of country name)	# 302, 3
<i>á-tu<sub>6</sub> hì-ya<sub>1</sub>-wa<sub>8</sub></i> “in Akhaia”	# 333, A5
E57-8, PD25	
<i>te-te te-na-te</i> “they have given to Tanit”	# 294, 1
<i>SASA lu navis lu-ná-sa<sub>1</sub> ze-lu</i> “seal (of) the nauarkh, Lunasa(s?), zilath”	# 298, 1-2
<i>a-na-kí-wa<sub>9</sub></i> “Ankiwas”	# 309, 1
<i>á ku-na-sa<sub>3</sub> ti<sub>1</sub>-sa<sub>6</sub> <sup>U</sup>SARU+ti</i> “Knossos (is) part of your sworn vassal kingship (G sg.)”	# 333, A14-15; 20-21
<i>i-na-ku</i> “hail (= Egyptian <i>ankh</i> )”	# 333, B4
<i>i-du-ma<sub>2</sub>-na</i> “Idomeneus”	# 333, B9
<i>ku-na-wa<sub>10</sub> SARU</i> “Gouneus (is) king”	# 333, B12
<i>ku ri-ti<sub>1</sub>-na sa<sub>2</sub> sa<sub>6</sub>-ta</i> “to which Rhytion belonged (lit.: what (N-A(n) sg.) Rhytion was (3rd pers. sg. of the past tense) of it)”	# 333, B22-23
<i>ú ri-ti<sub>1</sub>-na ná-sa<sub>2</sub>+ti</i> “(so) Rhytion (is) for Nestor (D sg.)”	# 333, B29-30
E10	
<i>á-tà -wa? á-hár-hù</i> “Akharkus has made (3rd pers. sg. of the past tense)”	# 332, 2
PD8	
<i>KATA+ti</i> “under you”	# 333, A7; B18, 21, 26
<i>KATA-mi<sub>1</sub></i> “under me”	# 333, B19
E9	
<i>bity ma<sub>6</sub>-sa(i) PIA</i> “the king (has) give(n) to the god(s) (D sg. (or pl.))”	# 003γ; # 139
<i>TARKU ya PIA</i> “Tarkhu(nt) (has) give(n) this”	# 105a
<i>SASA 'ta<sub>5</sub>-le PIA</i> “seal (of) Thales, (he has) give(n)”	# 126
<i>pi-ya 'á-à</i> “Aas (has) give(n)”	# 297, 2-3
E27, PD1	
<i>SASA UTNA sr</i> “seal-land-official(s)”	PF 7 (9x)
<i>á-tu<sub>6</sub> mi<sub>1</sub>-SARU</i> “in the Mesara”	# 333, A1; 26
<i>ta SARU ti<sub>2</sub>-ya<sub>1</sub>-sa<sub>2</sub></i> “and of your (G sg. used for pl.) kings”	# 333, A10-11

<i>á ku-na-sa<sub>3</sub> tí<sub>1</sub>-sa<sub>6</sub> <sup>U</sup>SARU+ti</i> “Knossos (is) part of your sworn kingship (G sg.)”	# 333, A14-15; 20-21
<i>mi<sub>1</sub>-SARU</i> “the Mesara”	# 333, A30
<i>mi<sub>1</sub>-SARU-ḥà-wa<sub>8</sub></i> “and the Mesara”	# 333, B7
<i>custos sa<sub>2</sub> mi<sub>1</sub>-SARU sa<sub>6</sub>[+ti] i-du-ma<sub>2</sub>-na</i> “great intendant of the Mesara is (3rd pers. sg. of the present tense) Idomeneus”	# 333, B8-9
<i>ku-na-wa<sub>10</sub> SARU</i> “Gouneus (is) king”	# 333, B12
<i>ú-wa<sub>8</sub> SARU</i> “Uwas (is) king”	# 333, B15
<i>á-ḥar<sub>1</sub>-ku SARU</i> “Akharkus (was) king”	# 333, B17
E11	
<i>ya-ta<sub>6</sub>-nú</i> “he has given”	PF 5 (41x)
<i>’ya-ta<sub>6</sub>-le</i> “Yatar”	# 258, 1
<i>bity sà-ta<sub>6</sub>-E95</i> “king Santa-??”	# 272, 1
<i>sol suus ta<sub>5</sub>-ta<sub>6</sub></i> “his majesty Tatas”	# 297, 1-2
DA8	
<i>i+à I(a)+PÁRA</i> “these double axes (N-A(n) pl.)”	# 332, 1
PD5	
<i>’MUWA-ti</i> “Muwattis”	# 302, 1
<i>á-du -ti<sub>1</sub> TIWA+ti</i> “your (lord) Haddu brings (3rd pers. sg. of the present tense)”	# 333, B3
PD29	
<i>ú ná-sa<sub>2</sub>+ti ú ú-ri á-tu<sub>6</sub> ḥì-ya<sub>1</sub>-wa<sub>8</sub></i> “to Nestor, great (man) (D sg.) in Akhaia”	# 333, A3-5
<i>ú-pa<sub>5</sub> pa<sub>5</sub>-yá-ta</i> “behind Phaistos”	# 333, B13
<i>ú-wa<sub>8</sub> SARU</i> “Uwas (is) king”	# 333, B15
<i>ú-wi-sa<sub>2</sub> KATA+ti</i> “yours (G of the pronoun of 2nd pers. pl.) under you”	# 333, B18
<i>ú KATA-mi<sub>1</sub></i> “: under me”	# 333, B19
<i>ú ná-sa<sub>2</sub>+ti</i> “: for Nestor (D sg.)”	# 333, B20
<i>i ú-wi-sa<sub>2</sub> KATA+ti</i> “this (N-A(n) sg.) of you (G of the pronoun of the 2nd pers. pl.) under you”	# 333, B21; 26
<i>ú ri-ti<sub>1</sub>-na ná-sa<sub>2</sub>+ti</i> “(so) Rhytion (is) for Nestor (D sg.)”	# 333, B29-30

# 300, 2, sign 3	
<i>le sa<sub>1</sub>-wa<sub>9</sub>-ta<sub>4</sub></i> “to Sa(r)wa(n)tas”	# 294, 4
ʼARA- <i>ta<sub>4</sub></i> “Arantas”	# 300, 2
E65	
<i>ni TARKU</i> “to Tarkhu(nt)”	# 054a
<i>i TARKU ya-ta<sub>6</sub>&lt;-nú&gt; ZITI</i> “Tarkhu(nt) has given this (N-A(n) sg.) to the official”	# 090a
<i>TARKU ya PIA</i> “Tarkhu(nt) (has) give(n) this (N-A(n) sg.)”	# 105a
SASA <i>magistratus TARKU-sa<sub>1</sub></i> “seal of the magistrate Tarkus (G sg.)”	# 193
<i>la+PÁRANA TARKU-MUWA</i> “labarnas Tarkumuwas”	# 271, 3
<i>sol TARKU-sa</i> “of sun-blessed Tarkus”	# 290, 1
<i>sa<sub>5</sub> TARKU</i> “of Tarkhu(nt)”	# 294, 2
AMU ʼ <i>TARKU</i> “I (am) Tarkus”	# 310, 3
<i>TARKU-ti<sub>5</sub>-m+UWA</i> “Tarkuntimuwas”	QMu 1980, Fig. 231
E99	
<i>rú-ti<sub>5</sub></i> “Rhytion”	CMS VI, 1, no. 97, a-c
<i>a-nú SASA ta<sub>5</sub>-rú-ni</i> “under the seal with respect to Atlunu (D sg.)”	# 255, 1
<i>a-rú-ti<sub>6</sub></i> “Aruntis”	# 280, 1
<i>sa<sub>5</sub>-rú-sa<sub>1</sub></i> “of the king”	# 294, 4
<i>PÁRA-tá-rú</i> “Bartaras”	# 296, 2
ʼ <i>bity-rú</i> “Bitylos”	# 303, 2
E63	
<i>sà-ta-te</i> “Sandatis”	# 182
<i>sà-ti<sub>6</sub></i> “Sandēs”	# 247, 1
<i>sà-hur-wa<sub>9</sub></i> “Skheria”	# 271, 2
<i>bity sà-ta<sub>6</sub>-E95</i> “king Santa-?”	# 272, 1
<i>ra-sà+tì</i> “the Lasithi”	# 283, 3
SASA <i>sà sol suus ta<sub>5</sub>-ta<sub>6</sub></i> “seal of his majesty Tatas”	# 297, 1-2
# 213, 1, lower sign of the ligature	
<i>m+UWA</i> “Muwas”	# 213, 1
<i>TARKU-ti<sub>5</sub>-m+UWA</i> “Tarkuntimuwas”	QMu 1980, Fig. 231

## E62

<i>a-mu sr/i-sá-li</i> “I (am) Ser/Isali(s?)”	# 039b
<i>TARHU(NT)-mu-kí</i> “Tarkhumuki(s?)”	# 128
<i>mu-lu-arcus cum sagitta</i> “Mulu-??” (?)	# 236, 1
<i>MUWA</i> “Muwas”	# 253, 1
<i>’MUWA</i> “Muwas”	# 264, 1
<i>la+PARANA TARKU-MUWA</i> “labarnas Tarkumuwas”	# 271, 3
<i>’MUWA-ti</i> “Muwattis”	# 302, 3

## PD26

<i>ra-sú-ta</i> “the Lasithi”	# 333, A9
<i>á-tu<sub>6</sub> ra-sú+ti</i> “in the Lasithi (D sg.)”	# 333, A16; 19; 22
<i>ra-sú-tu<sub>6</sub></i> “the Lasithi”	# 333, A25
<i>pa<sub>5</sub>-ya<sub>1</sub>-ta á-sú-wi-ya<sub>1</sub></i> “Assuwian Phaistos (endingless A(m/f) sg.)”	# 333, B10-11

## E64

<i>bity ma<sub>6</sub>-sa(i) PIA</i> “the king (has) give(n) to the god(s) (D sg. (or pl.))”	# 003γ; # 139
<i>ma<sub>6</sub>-pu<sub>2</sub></i> “Mabu’u”	# 283, 1
<i>ma<sub>6</sub>-ni-le</i> “Men<-kheper>-r’”	# 312, 1

## E67, PD30

<i>har<sub>1</sub>-ma-hà-sa<sub>6</sub></i> “of the man (G sg.)”	# 333, B27
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## MA12

<i>ta<sub>1</sub>-ya<sup>tw</sup> HAWA-sa<sub>5</sub>-wa<sub>1</sub></i> “this (N-A(n) sg.) inscribed altar stone”	# 328
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## E77, PD28

<i>anulus í-PÁRA</i> “Lipari”	# 301, 4
<i>á ku-na-sa<sub>3</sub> ti<sub>1</sub>-sa<sub>6</sub> <sup>L</sup>SARU+ti</i> “Knossos (is) part of your sworn kingship (G sg.)”	# 333, A14-15; 20-21

## E82, PD32

<i>TARKU-ti<sub>5</sub>-m+UWA</i> “Tarkuntimuwas”	QMu 1980, Fig. 231
<i>pì-ti<sub>5</sub></i> “king”	CMS II, 2, no. 102, 3
<i>rú-ti<sub>5</sub></i> “Rhytion”	CMS VI, 1, no. 97, a-c
<i>ru-ti<sub>5</sub></i> “Rhytion”	# 294, 2-3
<i>pí-ti<sub>5</sub>-tī</i> “on behalf of the king (D sg.)”	# 314, 8

- á-tu<sub>6</sub> -tí<sub>5</sub> ti<sub>1</sub>-wa<sub>10</sub>+ti TARĤU(NT)* “to you brings  
 (3rd pers. sg. of the present tense)  
 Tarkhunt” # 333, A12-13
- á-tu<sub>6</sub> ku UTNA tí<sub>5</sub>-sa<sub>6</sub>* “in (the territory) what  
 (N-A(n) sg.) your (G sg.) district (is)” # 333, A23  
*mi<sub>4</sub> ta-tí<sub>5</sub> -hà-wa<sub>8</sub>* “and for my father (D sg.)” # 333, B16
- E79, PD31
- a-sa<sub>1</sub>-sa<sub>1</sub>-ra.me, a-sa<sub>1</sub>-sa<sub>1</sub>-ra-me,*  
*a-sa<sub>1</sub>-sa<sub>1</sub>-ra-mà* “oh Asherah” LF (14x)  
*ra-sà+ti* “the Lasithi” # 283, 3  
*’ARA-ta<sub>4</sub>* “Arantas” # 300, 2  
*ra-sú-ta* “the Lasithi” # 333, A9  
*á-tu<sub>6</sub> ra-sú+ti* “in the Lasithi (D sg.)” # 333, A16; 19; 22  
*ra-sú-tu<sub>6</sub>* “the Lasithi” # 333, A25
- E59, PD33
- WA<sub>8</sub>* (abbr. of town or country name) # 290, 4  
*pa<sub>5</sub>-ki-wa<sub>8</sub>* “Pyrgiotissa” # 303, 4  
*á-tu<sub>6</sub> hì-ya<sub>1</sub>-wa<sub>8</sub>* “in Akhaia” # 333, A5  
*á-tu<sub>6</sub> ku-ku-ta<sup>DU</sup> jugum+aratrum wa<sub>8</sub>-ti<sub>1</sub> á-tu<sub>6</sub>*  
*ra-sú+ti* “in (the territory) wherever a  
 team of oxen ploughs for the town (D  
 sg.) in the Lasithi (D sg.)” # 333, A17-19  
*wa<sub>8</sub> pa<sub>5</sub>-yá-tu<sub>6</sub> <sup>LI</sup>ti<sub>1</sub>-sa<sub>6</sub> as+ti mi<sub>1</sub>-SARU*  
*-hà-wa<sub>8</sub>* “Phaistos (endingless N(m/f)  
 sg.) is (3rd pers. sg. of the present  
 tense) (part of) your sworn (district)  
 (G sg.) and the Mesara” # 333, B5-7  
*ú-wa<sub>8</sub> SARU* “Uwas (is) vassal king” # 333, B15  
*mi<sub>4</sub> ta-tí<sub>5</sub> -hà-wa<sub>8</sub>* “and for my father (D sg.)” # 333, B16
- E84
- ma<sub>1</sub>-na<sub>6</sub>* “Minos” # 257, 1
- E97
- sà-ta-te* “Sandatis” # 182  
*te-ni-te* “to Tanit” # 294, 1  
*te-te te-na-te* “they have given to Tanit” # 294, 1  
*te-te hordeum TINATA/I+ti* “they have given  
 (1000 measures of) grain because of  
 the tithe” # 294, 3

<i>te-ru</i> “delivery (c. <i>ya-ta<sub>6</sub>-nú</i> )”	# 309, 4
<i>te-lu sa<sub>5</sub>-hár-wa<sub>1</sub></i> “delivery: Skheria”	# 328
E92	
<i>ya-ta<sub>6</sub>-nú</i> “he has given”	PF 5 (25x)
<i>ta<sub>5</sub>-ru-nú</i> “Atlunu”	PF 6 (11x)
<i>nú-sa</i> “child, son” (local, i.e. Knossian, dialectal translation of <i>pí-ni</i> )	# 056a
<i>hì-nú<sup>UTNA</sup></i> “Canaan”	# 276, 3
<i>a-nú</i> SASA <i>ta<sub>5</sub>-rú-ni</i> “under the seal with respect to Atlunu (D sg.)”	# 255, 1
<i>a-sa-nú</i> “Asanus”	# 301, 1
<i>nú pa<sub>5</sub>-ki-wa<sub>8</sub></i> “of Pyrgiotissa”	# 303, 4
<i>’tá-PÁRA pí-ni ’nú-wa<sub>1</sub></i> “Daparás, son (of) Nuwas”	# 314, 1-3
<i>á-hár-hù ha<sub>5</sub>-nú-sa<sub>1</sub></i> “Akharkus, son of Khanus (G sg.)”	# 332, 2-3
PD36	
<i>pa<sub>5</sub>-ya<sub>1</sub>-ta á-sú-wi-ya<sub>1</sub></i> “Assuwian Phaistos (endingless A(m/f) sg.)”	# 333, B10-11
<i>ú-wi-sa<sub>2</sub> KATA+ti</i> “yours (G of the pronoun of 2nd pers. pl.) under you”	# 333, B18
<i>i ú-wi-sa<sub>2</sub> KATA+ti</i> “this (N-A(n) sg.) of you (G of the pronoun of the 2nd pers. pl.) under you”	# 333, B21; 26
PD24	
<i>pa<sub>5</sub>-lu-zi-ti<sub>8</sub></i> “for Baluzitis (D sg.)”	# 328
<i>á-tu<sub>6</sub> mi<sub>1</sub>-SARU sa<sub>6</sub>+ti pa<sub>5</sub>-ya<sub>1</sub>-tu<sub>6</sub></i> “in the Mesara is (3rd pers. sg. of the past tense) Phaistos (endingless N(m/f) sg.)”	# 333, A1-2
<i>wa<sub>8</sub> pa<sub>5</sub>-ya<sub>1</sub>-tu<sub>6</sub> <sup>u</sup>ti<sub>1</sub>-sa<sub>6</sub> as+ti mi<sub>1</sub>-SARU -hà-wa<sub>8</sub></i> “Phaistos (endingless N(m/f) sg.) is (3rd pers. sg. of the present tense) (part of) your sworn (district) (G sg.) and the Mesara”	# 333, B5-7
<i>pa<sub>5</sub>-ya<sub>1</sub>-ta á-sú-wi-ya<sub>1</sub></i> “Assuwian Phaistos (endingless A(m/f) sg.)”	# 333, B10-11
<i>ú-pa<sub>5</sub> pa<sub>5</sub>-yá-ta</i> “behind Phaistos”	# 333, B13

## E100

<b>tì</b> -PÁRA “tabar(na)s”	CMS VI, 1, no. 97, b
<b>á</b> + <b>tì</b> <i>wa</i> <sub>1</sub> - <i>ti</i> <sub>1</sub> “in the town (D sg.)” (?)	# 109a
<i>ra</i> - <i>sà</i> + <b>tì</b> “the Lasithi”	# 283, 3
<i>pí</i> + <b>tì</b> - <i>tì</i> “on behalf of the king (D sg.)”	# 302, 2

## E88

SASA <b>sá</b> <i>custos lu nswt bity</i> “seal of the commander of the guard (on behalf of) the king”	# 039a
<i>a</i> - <i>mu sr/i</i> - <b>sá</b> - <i>li</i> “I (am) Ser/Isali(s?)”	# 039b
SASA <b>sá</b> <i>ma</i> <sub>6</sub> - <i>pu</i> <sub>2</sub> “seal of Mabu’u”	# 283, 1

## E96

<b>la</b> +PÁRANA TARKU-MUWA “labarnas Tarkumuwas”	# 271, 3
# 294, 3, sign on the upper left	
<i>te</i> - <i>te</i> <b>hordeum</b> <i>TINATA/I</i> + <i>ti</i> “they have given (1000 measures of) grain because of the tithe”	# 294, 3

## PD12

<b>á</b> - <b>tu</b> <sub>6</sub> <i>mi</i> <sub>1</sub> -SARU <i>sa</i> <sub>6</sub> + <i>ti pa</i> <sub>5</sub> - <i>ya</i> <sub>1</sub> - <b>tu</b> <sub>6</sub> “in the Mesara is (3rd pers. sg. of the past tense) Phaistos (endingless N(m/f) sg.)”	# 333, A1-2
<b>á</b> - <b>tu</b> <sub>6</sub> <i>mi</i> <sub>1</sub> -SARU “in the Mesara”	# 333, 26
<b>á</b> - <b>tu</b> <sub>6</sub> <i>hì</i> - <i>ya</i> <sub>1</sub> - <i>wa</i> <sub>8</sub> “in Akhaia”	# 333, A5
<i>ku ná</i> - <i>sa</i> <sub>2</sub> - <b>tu</b> <sub>6</sub> “what (N-A(n) sg.) Nestor (endingless N(m/f) sg.) (has)”	# 333, A6
<b>á</b> - <b>tu</b> <sub>6</sub> - <i>tì</i> <sub>5</sub> <i>tì</i> <sub>1</sub> - <i>wa</i> <sub>10</sub> + <i>ti</i> TARĤU(NT) “to you brings (3rd pers. sg. of the present tense) Tarkhunt”	# 333, A12-13
<b>á</b> - <b>tu</b> <sub>6</sub> <i>ra</i> - <i>sú</i> + <i>ti</i> “in the Lasithi (D sg.)”	# 333, A16; 19; 22
<i>ra</i> - <i>sú</i> - <b>tu</b> <sub>6</sub> “the Lasithi”	# 333, A25
<b>á</b> - <b>tu</b> <sub>6</sub> <i>i</i> - <i>ya</i> <sub>1</sub> - <i>sa</i> <sub>2</sub> “in (the territory) of these (G sg. used for pl.)”	# 333, B1
<i>wa</i> <sub>8</sub> <i>pa</i> <sub>5</sub> - <i>yá</i> - <b>tu</b> <sub>6</sub> <sup>u</sup> <i>ti</i> <sub>1</sub> - <i>sa</i> <sub>6</sub> <i>as</i> + <i>ti mi</i> <sub>1</sub> -SARU <i>-hà</i> - <i>wa</i> <sub>8</sub> “Phaistos (endingless N(m/f) sg.) is (3rd pers. sg. of the present tense) (part of) your sworn (district)”	

(G sg.) and the Mesara”	# 333, B5-7
E112, 91	
<i>i ná lu</i> “this (N-A(n) sg.) to the official”	# 038b
SASA <i>sá custos lu nswt bity</i> “seal of the commander of the guard (on behalf of) the king”	# 039a
<i>i lu ná pí-ti<sub>6</sub></i> “this (N-A(n) sg.) the official to the king”	# 112a
<i>mu-lu-arcus cum sagitta</i> “Mulu-??” (?)	# 236, 1
<i>ná-ná-lu</i> “Nanazitis”	# 287, 1
SASA <i>lu navis lu-ná-sa<sub>1</sub> ze-lu</i> “seal (of) the nauarkh, Lunasa(s?), admiral”	# 298, 1-2
<i>a-ya-lu</i> “Ayalu (= Malia)”	# 310, 2
<i>pa<sub>5</sub>-lu-zí-ti<sub>8</sub></i> “for Baluzitis (D sg.)”	# 328
<i>te-lu sa<sub>5</sub>-hár-wa<sub>1</sub></i> “delivery: Skheria”	# 328
PD38	
<i>á-tu<sub>6</sub> -ti<sub>5</sub> ti<sub>1</sub>-wa<sub>10</sub>+ti TARĤU(NT)</i> “to you brings (3rd pers. sg. of the present tense) Tarkhunt”	# 333, A12-13
<i>sa<sub>3</sub>-hár-wa<sub>10</sub></i> “Skheria”	# 333, A28; 31
<i>ku-na-wa<sub>10</sub> SARU</i> “Gouneus (is) king”	# 333, B12
PD11	
SASA <i>sà sol suus ta<sub>5</sub>-ta<sub>6</sub></i> “seal of his majesty (= great king) Tatas”	# 297, 1-2
<i>á-tu<sub>6</sub> -ti<sub>5</sub> ti<sub>1</sub>-wa<sub>10</sub>+ti TARĤU(NT) sol suus+WASU</i> “to you brings (3rd pers. sg. of the present tense) Tarkhunt, his majesty (= great king), “hail””	# 333, A12-13
E5	
<i>pí-ti<sub>6</sub></i> “king”	PF 2 (35x)
<i>pí-ni&lt;-pí&gt;-ti<sub>6</sub></i> “prince”	PF 3 (4x)
<i>a-rú-ti<sub>6</sub></i> “Aruntis”	# 280, 1
PD39	
<i>TARĤU(NT)-mu-kí</i> “Tarkhumuki(s?)”	# 128
<i>á-tu<sub>6</sub> -ti<sub>5</sub> ti<sub>1</sub>-wa<sub>10</sub>+ti TARĤU(NT)</i> “to you brings (3rd pers. sg. of the present tense)	

Tarkhunt”	# 333, A12-13
<i>wa<sub>8</sub> pa<sub>5</sub>-yá-tu<sub>6</sub> <sup>u</sup>ti<sub>1</sub>-sa<sub>6</sub> as+ti mi<sub>1</sub>-SARU</i>	
- <b>hà</b> - <i>wa<sub>8</sub></i> “Phaistos (endingless N(m/f) sg.) is (3rd pers. sg. of the present tense) (part of) your sworn (district) (G sg.) and the Mesara”	# 333, B5-7
<i>mi<sub>4</sub> ta-ti<sub>5</sub> -hà-wa<sub>8</sub></i> “and for my father (D sg.)”	# 333, B16
<i>har<sub>1</sub>-ma-hà-sa<sub>6</sub></i> “of the man (G sg.)”	# 333, B27
E115, PD45	
<i>a-té-ná</i> “Athena(ios)”	# 037; 050a; 293, 1; 303, 1
<i>i ná lu</i> “this (N-A(n) sg.) to the official”	# 038b
<i>i-ná</i> “with respect to this (person) (A(m/f) sg.)”	# 050b
<i>i ná a&lt;-sa<sub>1</sub>-sa<sub>1</sub>-ra&gt;</i> “this (N-A(n) sg.) to Asherah”	# 054a
<i>i lu ná pí-ti<sub>6</sub></i> “this (N-A(n) sg.) the official to the king”	# 112a
<i>sa<sub>1</sub>-ná-ma<sub>1</sub></i> “Sanemas”	# 196
<b>ná-ná-lu</b> “Nanazitis”	# 287, 1
<i>SASA lu navis lu-ná-sa<sub>1</sub> ze-lu</i> “seal (of) the nauarkh, Lunasa(s?), zilath”	# 298, 1-2
<i>ú ná-sa<sub>2</sub>+ti ú ú-ri á-tu<sub>6</sub> hì-ya<sub>1</sub>-wa<sub>8</sub></i> “to Nestor, great (man) (D sg.) in Akhaia”	# 333, A3-5
<i>ku ná-sa<sub>2</sub>-tu<sub>6</sub></i> “what (N-A(n) sg.) Nestor (endingless N(m/f) sg.) (has)”	# 333, A6
<i>ku ná-sa<sub>2</sub>-ta</i> “what (N-A(n) sg.) Nestor (endingless N(m/f) sg.) (has)”	# 333, B2
<i>ú ná-sa<sub>2</sub>+ti</i> “: for Nestor (D sg.)”	# 333, B20
<i>ú ri-ti<sub>1</sub>-na ná-sa<sub>2</sub>+ti</i> “(so) Rhytion (is) for Nestor (D sg.)”	# 333, B29-30
E42, PD18	
<i>á-tu<sub>6</sub> mi<sub>1</sub>-SARU sa<sub>6</sub>+ti pa<sub>5</sub>-ya<sub>1</sub>-tu<sub>6</sub></i> “in the Mesara is (3rd pers. sg. of the past tense) Phaistos”	# 333, A1-2
<i>mi<sub>4</sub>-sa<sub>6</sub></i> “of my (G sg.)”	# 333, A8
<i>á ku-na-sa<sub>3</sub> ti<sub>1</sub>-sa<sub>6</sub> <sup>u</sup>SARU+ti</i> “Knossos (is) part of your sworn kingship (G sg.)”	# 333, A14-15; 20-21
<i>ku ri-ti<sub>1</sub>-na sa<sub>2</sub> sa<sub>6</sub>-ta</i> “to which Rhytion belonged (lit.: what (N-A(n) sg.)	

Rhytion was (3rd pers. sg. of the past tense) of it”	# 333, B22-23
<i>á-tu<sub>6</sub> ku UTNA ti<sub>5</sub>-sa<sub>6</sub></i> “in (the territory) what (N-A(n) sg.) your (G sg.) district (is)”	# 333, A23
<i>ku mi<sub>4</sub>-sa<sub>6</sub> anulus-sa<sub>1</sub> ra-sú-tu<sub>6</sub></i> “what (N-A(n) sg.) part (is) of my realm (G sg.) the Lasithi”	# 333, A23-25
<i>wa<sub>8</sub> pa<sub>5</sub>-yá-tu<sub>6</sub> <sup>U</sup>ti<sub>1</sub>-sa<sub>6</sub> as+ti mi<sub>1</sub>-SARU</i> -hà-wa <sub>8</sub> “Phaistos (endingless N(m/f) sg.) is (3rd pers. sg. of the present tense) (part of) your sworn (district) (G sg.) and the Mesara”	# 333, B5-7
<i>custos sa<sub>2</sub> mi<sub>1</sub>-SARU sa<sub>6</sub>[+ti] i-du-ma<sub>2</sub>-na</i> “great intendant of the Mesara is (3rd pers. sg. of the present tense) Idomeneus”	# 333, B8-9
<i>ú-pa<sub>5</sub> pa<sub>5</sub>-yá-ta <sup>U</sup>UTNA-sa<sub>6</sub></i> “behind Phaistos (is) part of (your) sworn district (G sg.)”	# 333, B13-14
<i>ku ri-ti<sub>1</sub>-na sa<sub>2</sub> sa<sub>6</sub>-ta</i> “to which Rhytion belonged (lit.: what (N-A(n) sg.) Rhytion was (3rd pers. sg. of the past tense) of it)”	# 333, B22-23
<i>ti<sub>1</sub>-sa<sub>6</sub></i> “of you (G sg.)”	# 333, B25
<i>har<sub>1</sub>-ma-hà-sa<sub>6</sub></i> “of the man (G sg.)”	# 333, B27
E114, PD14	
<i>SASA UTNA sr</i> “seal-land-official(s)”	PF 7 (10x)
<i>hì-nú<sup>UTNA</sup></i> “Canaan”	# 276, 3
<i>á-tu<sub>6</sub> ku UTNA ti<sub>5</sub>-sa<sub>6</sub></i> “in (the territory) what (N-A(n) sg.) your (G sg.) district (is)”	# 333, A23
<i>ú-pa<sub>5</sub> pa<sub>5</sub>-yá-ta <sup>U</sup>UTNA-sa<sub>6</sub></i> “behind Phaistos (is) part of (your) sworn district (G sg.)”	# 333, B13-14
E46	
<i>pa<sub>5</sub>-ya-kí</i> “the Phaiakians (N(m/f) pl.)”	# 296, 4
<i>pa<sub>5</sub>-ki-wa<sub>8</sub></i> “Pyrgiotissa”	# 303, 4

## E41

<i>hì-à-wa<sub>9</sub></i> “Akhaia”	# 246, 2
<i>sà-hur-wa<sub>9</sub></i> “Skheria”	# 271, 2
<i>le sa<sub>1</sub>-wa<sub>9</sub>-ta<sub>4</sub></i> “to Sa(r)wa(n)tas”	# 294, 4
<i>a-na-kí-wa<sub>9</sub></i> “Ankiwas”	# 309, 1

## MA13

<i>ta<sub>1</sub>-ya<sup>#wi</sup>HAWA-sa<sub>5</sub>-wa<sub>1</sub></i> “this (N-A(n) sg.) inscribed altar stone”	# 328
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# 236, 1, sign 3

<i>mu-lu-<u>arcus cum sagitta</u></i> “Mulu-??” (?)	# 236, 1
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## E17, PD16

<i>a-mu sr/i-sá-li</i> “I (am) Ser/Isali(s?)”	# 039b
<i>wa<sub>8</sub> pa<sub>5</sub>-yá-tu<sub>6</sub><sup>ti</sup> sa<sub>6</sub> as+ti mi<sub>1</sub>-SARU</i> -hà-wa <sub>8</sub> “Phaistos (endingless N(m/f) sg.) is (3rd pers. sg. of the present tense) (part of) your sworn (district) (G sg.) and the Mesara”	# 333, B5-7
<i>ú-pa<sub>5</sub> pa<sub>5</sub>-yá-ta<sup>UTNA</sup> sa<sub>6</sub></i> “behind Phaistos (is) part of (your) sworn district (G sg.)”	# 333, B13-14

## E12, PD15

<i>SASA sá TUZILU nswt bity</i> “seal of the commander of the guard (on behalf of) the king”	# 039a
<i>PÁRA-TUZI &lt;pi&gt;-ti<sub>6</sub>-pi-ni PÁRA-TUZI</i> “viceroi, prince, viceroi”	# 314, 4-5
<i>TUZI sa<sub>2</sub> mi<sub>1</sub>-SARU sa<sub>6</sub>[+ti] i-du-ma<sub>1</sub>-na</i> “great intendant of the Mesara is (3rd pers. sg. of the present tense) Idomeneus”	# 333, B8-9

# 277, 1, sign 1

<i>HASU-sa<sub>1</sub>-ru pi-ni-pi-ti<sub>6</sub></i> “prince (2x)”	# 277, 1-3
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# 293, 3, sign 1

<i>hi-ya-wa</i> “Akhaia”	# 293, 3
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## DA12

*á-har-hù ha<sub>5</sub>-nú-sa<sub>1</sub>* “Akharkus, son of  
Khanus (G sg.)” # 332, 2-3

## E15

*i TARKU ya-ta<sub>6</sub><-nú> ZITI* “Tarkhu(nt) has  
given this (N-A(n) sg.) to the official” # 090a  
*ZITInú-ti<sub>6</sub>* “the official Nutis” # 290, 2  
*pa<sub>5</sub>-lu-zí-ti<sub>8</sub>* “for Baluzitis (D sg.)” # 328

## E Fig. 70b

**KARKARIS** “Tragebalken” E, p. 132, Fig. 70b

## D44

*ku tí KATA[+ti]* “what (N-A(n) sg.) you (N  
(m/f) sg.) (have) under you” # 333, A7

## E24-5

**SASA UTNA sr** “seal-land-official(s)” PF 7 (10x)  
**SASA sá custos lu nswt bity** “seal of the  
commander of the guard (on behalf of)  
the king” # 039a  
**SASA pí-ni** “seal (of) Ben” # 180  
**SASA sà-ta-te** “seal (of) Sandatis” # 182  
**SASA magistratus TARKU-sa** “seal of the  
magistrate Tarkus (G sg.)” # 193  
**sa<sub>5</sub> TARKU** “of Tarkhu(nt)” # 294, 2  
**SASA 1000 WAINU** “(under) the seal 1000  
(measures of) wine” # 294, 3  
**sa<sub>5</sub>-rú-sa<sub>1</sub>** “of the king” # 294, 4  
**a-nú SASA ta<sub>5</sub>-rú-ni** “under the seal with  
respect to Atlunu (D sg.)” # 255, 1  
**SASA sá ma<sub>6</sub>-pu<sub>2</sub>** “seal of Mubu’u” # 283, 1  
**SASA sà sol suus ta<sub>5</sub>-ta<sub>6</sub>** “seal of his majesty  
Tatas” # 297, 1-2  
**SASA lu navis lu-ná-sa<sub>1</sub> ze-lu** “seal (of) the  
nauarkh, Lunasa(s?), admiral” # 298, 1-2  
*ta<sub>1</sub>-ya<sup>HAWA</sup> sa<sub>5</sub>-wa<sub>1</sub>* “this (N-A(n) sg.)  
inscribed altar stone” # 328  
*te-lu sa<sub>5</sub>-hár-wa<sub>1</sub>* “delivery: Skheria” # 328

## DA11

*á-hár-hù* *ha<sub>5</sub>-nú-sa<sub>1</sub>* “Akharkus, son of  
Khanus (G sg.)” # 332, 2-3

## PD20

*wa<sub>8</sub> pa<sub>5</sub>-yá-tu<sub>6</sub> <sup>u</sup>ti<sub>1</sub>-sa<sub>6</sub> as+ti mi<sub>1</sub>-SARU*  
*-hà-wa<sub>8</sub>* “Phaistos (endingless N(m/f)  
sg.) is (3rd pers. sg. of the present  
tense) (part of) your sworn (district  
(G sg.) and the Mesara” # 333, B5-7

*ú-pa<sub>5</sub> pa<sub>5</sub>-yá-ta <sup>u</sup>UTNA-sa<sub>6</sub>* “behind Phaistos  
(is) part of (your) sworn district (G  
sg.)” # 333, B13-14

## E47

*TARHU(NT)-mu-kí* “Tarkhumuki(s?)” # 128  
*pa<sub>5</sub>-ya-kí* “the Phaiakians (N(m/f) pl.)” # 296, 4  
*a-na-kí-wa<sub>9</sub>* “Ankiwas” # 303, 1

## B Abb. 3

*MASANA* “god” (symbol decorating temple  
façades) B, p. 11, Abb. 3

## B p. 13

*víta* “Cretan knot” (cult symbol) B, p. 13

## PD43

*wa<sub>8</sub> pa<sub>5</sub>-yá-tu<sub>6</sub> <sup>u</sup>ti<sub>1</sub>-sa<sub>6</sub> as+ti mi<sub>1</sub>-SARU*  
*-hà-wa<sub>8</sub>* “Phaistos (endingless N(m/f)  
sg.) is (3rd pers. sg. of the present  
tense) (part of) your sworn (district  
(G sg.) and the Mesara” # 333, B5-7

## E14, 26, PD47

*SASA ía<sub>5</sub>-le PIA* “seal (of) Thales, (he has)  
give(n)” # 126

*SASA pí-ni* “seal (of) Ben” # 180

*ya-ta<sub>6</sub>-le* “Yatar” # 258, 1

*MUWA* “Muwas” # 264, 1

*á-té-ná* “Athena(ios)” # 293, 1

*pí-sa<sub>1</sub>-ru* “Pisaros” # 294, 4

*á-à* “Aas” # 297, 3

<i>ÁRA-ta<sub>4</sub></i> “Arantas”	# 300, 2
<i>ÁMUWA-ti</i> “Muwattis”	# 302, 1
<i>bity-rú</i> “Bitylos”	# 303, 2
<i>AMU ÁTARKU</i> “I (am) Tarkus”	# 310, 3
<i>ÁÁ-PÁRA pí-ni nú-wa</i> “Daparas, son (of) Nuwas”	# 314, 1-3
<i>ú ná-sa<sub>2</sub>+ti ú ú-ri á-tu<sub>6</sub> hì-ya<sub>1</sub>-wa<sub>8</sub></i> “to Nestor, great (man) (D sg.) in Akhaia”	# 333, A3-5

## PD46

<i>te-te hordeum TINATA/I+ti</i> “they have given (1000 measures of) grain because of the tithe”	# 294, 3
<i>á+ti sa<sub>1</sub>-hár-wa?</i> “in Skheria”	# 332, 1
<i>á-tu<sub>6</sub> mi<sub>1</sub>-SARU sa<sub>6</sub>+ti pa<sub>5</sub>-ya<sub>1</sub>-tu<sub>6</sub></i> “in the Mesara is (3rd pers. sg. of the past tense) Phaistos (endingless N(m/f) sg.)”	# 333, A1-2
<i>ú ná-sa<sub>2</sub>+ti ú ú-ri á-tu<sub>6</sub> hì-ya<sub>1</sub>-wa<sub>8</sub></i> “to Nestor, great (man) (D sg.) in Akhaia”	# 333, A3-5
<i>ku tí KATA[+ti]</i> “what (N-A(n) sg.) you (N(m/f) sg.) (have) under you”	# 333, A7
<i>á-tu<sub>6</sub> -ti<sub>5</sub> ti<sub>1</sub>-wa<sub>10</sub>+ti TARHU(NT)</i> “to you brings (3rd pers. sg. of the present tense) Tarkhunt”	# 333, A12-13
<i>á ku-na-sa<sub>3</sub> ti<sub>1</sub>-sa<sub>6</sub> <sup>u</sup>SARU+ti</i> “Knossos (is) part of your sworn vassal kingship (G sg.)”	# 333, A14-15; 20-21
<i>á-tu<sub>6</sub> ra-sú+ti</i> “in the Lasithi (D sg.)”	# 333, A16; 19; 22
<i>á-du -ti<sub>1</sub> TIWA+ti</i> “your (lord) Haddu brings (3rd pers. sg. of the present tense)”	# 333, B3
<i>wa<sub>8</sub> pa<sub>5</sub>-yá-tu<sub>6</sub> <sup>u</sup>ti<sub>1</sub>-sa<sub>6</sub> as+ti mi<sub>1</sub>-SARU -hà-wa<sub>8</sub></i> “Phaistos (endingless N(m/f) sg.) is (3rd pers. sg. of the present tense) (part of) your sworn (district) (G sg.) and the Mesara”	# 333, B5-7
<i>TUZI sa<sub>2</sub> mi<sub>1</sub>-SARU sa<sub>6</sub>[+ti] i-du-ma<sub>2</sub>-na</i> “great intendant of the Mesara is (3rd pers. sg. of the present tense) Idomeneus”	# 333, B8-9
<i>ú-wi-sa<sub>2</sub> KATA+ti</i> “yours (G of the pronoun	

of 2nd pers. pl.) under you”	# 333, B18
<i>ú ná-sa<sub>2</sub>+ti</i> “: for Nestor (D sg.)”	# 333, B20
<i>i ú-wi-sa<sub>2</sub> KATA+ti</i> “this (N-A(n) sg.) of you (G of the pronoun of the 2nd pers. pl.) under you”	# 333, B21; 26
<i>ú ri-ti<sub>1</sub>-na ná-sa<sub>2</sub>+ti</i> “(so) Rhytion (is) for Nestor (D sg.)”	# 333, B29-30
# 213, 1, upper sign of the ligature <i>m+UWA</i> “Muwas”	# 213, 1
<i>TARKU-ti<sub>5</sub>-m+UWA</i> “Tarkuntimuwas”	QMu 1980, Fig. 232
# 294, 3, sign in ligature on the lower left <i>te-te hordeum TINATA/I+ti</i> “they have given (1000 measures of) grain because of the tithe”	# 294, 3
# 294, 3, 3rd sign from the right <i>SASA 1000 WAINU</i> “(under) the seal 1000 (measures of) wine”	# 294, 3
E122 <i>bity ma<sub>6</sub>-sa(i) PIA</i> “the king (has) give(n) to the god(s) (D sg. (or pl.))”	# 003γ; # 139
<i>TARKU-sa</i> “of Tarkus”	# 290, 1
<i>ni-sa-ta<sub>1</sub></i> “Nestor”	# 295, 2
LF VIIb, 2, sign 3 <i>a-sa<sub>1</sub>-sa<sub>1</sub>-ra-mà</i> “oh Asherah”	LF VIIb, 1-2
E138 <i>SASA magistratus TARKU-sa<sub>1</sub></i> “seal of the magistrate Tarkus (G sg.)”	# 193
# 293, 3, sign 3 <i>hí-ya-wa</i> “Akhaia”	# 293, 3
# 303, 4, sign 3 <i>pa<sub>5</sub>-ki-wa<sub>8</sub></i> “Pyrgiotissa”	# 303, 4
# 297, 3, sign 3 <i>hì-à-wa<sub>9</sub></i> “Akhaia”	# 246, 2

<i>á-â</i> “Aas”	# 297, 3
<i>i+â l(a)-PÁRA</i> “these double axes (N-A(n) pl.)”	# 332, 1
# 271, 2, sign 2	
<i>sà-hur-wa<sub>9</sub></i> “Skheria”	# 271, 2
E19	
<i>ta<sub>5</sub>-ru-nú</i> “Atlunu”	PF 6 (11x)
SASA <i>á-ta<sub>5</sub>-le PIA</i> “seal (of) Thales, (he has) give(n)”	# 126
<i>a-nú</i> SASA <i>ta<sub>5</sub>-rú-ni</i> “under the seal with respect to Atlunu (D sg.)”	# 255, 1
<i>pí-ta<sub>5</sub>-PÁRA</i> “Pittaparas”	# 255, 2; # 300, 1
SASA <i>sà sol suus ta<sub>5</sub>-ta<sub>6</sub></i> “seal of his majesty Tatas”	# 297, 1-2
MA6	
<i>pa<sub>5</sub>-lu-zí-ti<sub>8</sub></i> “for Baluzitis (D sg.)”	# 328
E69	
<i>aper<sub>2</sub>-ya</i> “Eburia”	# 256
PD17	
<i>anulus</i> <i>í-PÁRA</i> “Lipari”	# 301, 4; cf. # 187
<i>ku mi<sub>4</sub>-sa<sub>6</sub> anulus-sa<sub>1</sub> ra-sú-tu<sub>6</sub></i> “what (N-A(n) sg.) part (is) of my realm (G sg.) the Lasithi”	# 333, A23-25

Note that the use of signs from the *e*-series (# 126 *ta<sub>5</sub>-le* “Thales”, # 258, 1 *ya-ta<sub>6</sub>-le* “Yatar”, # 312, 1 *ma-ni-le* “Men<kheper>-r”, LF *a-sa<sub>1</sub>-sa<sub>1</sub>-ra-me* “oh Asherah”, # 182 *sà-ta-te* “Sandatis”, # 328 *te-lu* “delivery”, # 298, 2 *ze-lu* “admiral”), the distinction of [d] from [t] (# 333, B3 *á-du* “Haddu”, # 333, B9 *i-du-ma<sub>2</sub>-na* “Idomeneus”) and of [b] from [p] (# 018, # 262, 1, # 310, 4 *bity* “king”, and # 283, 1 *ma<sub>6</sub>-bu* “Mabu’u”), as well as gemination (LF *a-sa<sub>1</sub>-sa<sub>1</sub>-ra* “Asherah”), are exceptional phenomena for Cretan hieroglyphic. As a consequence, the apparent difficulty in expressing the vowel [e] may lead to oscillation between [a] and [i], as in case

of *ná-sa<sub>2</sub>-ta* (# 333, B2) alongside *ni-sa-ta<sub>1</sub>* (# 295, 2) “Nestor” and *mi<sub>1</sub>-SARU* (# 333, A1, etc.) alongside *MA<sub>1</sub>* (# 247, 3, # 283, 4, # 287, 4, # 295, 4, # 309, 2) or *MA<sub>6</sub>* (# 312, 2) “the Mesara”.

#### 4. STRUCTURAL ANALYSIS OF THE SEAL LEGENDS

On the basis of the overview of what appear to be reasonably clear contexts in the preceding section, a structural analysis can be applied to the legends of the seals or sealings, distinguishing the categories MN (9 times clearly marked as such by the determinative of personal names E14 of CHIC050, corresponding to Luwian hieroglyphic \*383, 1), title, and geographic name—i.e. precisely the categories to be expected in the light of the relevant comparative Late Bronze Age evidence from the Levant and Anatolia (see Figs. 14-16 below).<sup>93</sup> In the following list, only seals or sealings are included of which the entire legend can be meaningfully interpreted. For a selection of such seals with their full legend in transliteration and translation, see Fig. 29 below. Note that the formula PF 5 *ya-ta<sub>6</sub>-nú* (= Semitic *ym*) “he has given”, its Luwian equivalent *PIA* “(he has) give(n)”, and the introductory formula PF 7 *SASA UTNA SR* “seal-land-official(s)” (including its shorthand variants *SASA UTNA* “seal-land” and *SASA* “seal”) are left out of this survey for convenience’s sake.

	CHIC	MN	title	place/country
1.	(QMu)	<i>TARKU-ti<sub>5</sub>-m+UWA</i>		
2.	# 018		<i>nswt bity pí-ti<sub>6</sub></i>	
3.	# 039	<i>sr/i-sá-li</i>	<i>TUZI lu</i>	
4.	# 126	<i>ʿta<sub>5</sub>-le</i>		
5.	# 128	<i>TARHU(NT)-mu-kí</i>		
6.	# 180	<i>ʿpí-ni</i>		
7.	# 182	<i>sà-ta-te</i>		
8.	# 193	<i>TARKU-sa<sub>1</sub></i>	<b><i>magistratus</i></b>	
9.	# 213	<i>m+UWA</i>	<i>pí-ni</i>	

<sup>93</sup> The earliest Anatolian instance of what I have called a full legend seal, bearing the testimony of all three categories together, is the one of the Assuwan king Piyamkuruntas (Mora 1987: XIIb 1.1), dating to the late 15th century BC, see Woudhuizen 2011a: 88. As the Cretan examples set in from a much earlier date, this feature may well have radiated from Crete to Anatolia instead of vice versa.

	CHIC	MN	title	place/country
10.	# 214		<i>bity</i>	MA <sub>1</sub>
11.	# 236	<i>mu-lu-arcus c. sag.</i>		MA <sub>1</sub>
12.	# 246		<i>pí-ti-ti<sub>6</sub></i>	<i>hì-à-wa<sub>9</sub></i>
13.	# 247	<i>sà-tí<sub>6</sub></i>	<i>pí-ni-pí-ti<sub>6</sub></i>	MA <sub>1</sub>
14.	# 253	MUWA	<i>pí-ni-pí-ti<sub>6</sub></i>	
15.	# 255	<i>pí-ta<sub>5</sub>-PÁRA</i>	<i>pí-tī</i>	<i>ta<sub>5</sub>-rú-ni</i>
16.	# 257	<i>ma<sub>1</sub>-na<sub>6</sub></i>	<i>pí-tī</i>	<i>ta<sub>5</sub>-ru-nú</i>
17.	# 258	<i>´ya-ta<sub>6</sub>-le</i>	<i>pí-ni</i>	<i>ta<sub>5</sub>-ru-nú</i>
18.	# 262		<i>bity pí-ti<sub>6</sub></i>	<i>ta<sub>5</sub>-ru-nú</i>
19.	# 264	<i>´MUWA</i>	<i>pí-ni ni pí-ti<sub>6</sub></i>	
20.	# 271	TARKU-MUWA	<i>la+PÁRANA</i>	<i>sà-hur-wa<sub>9</sub></i>
21.	# 272	<i>sà-ta<sub>6</sub>-E95</i>	<i>bity</i>	<i>ta<sub>5</sub>-ru-nú</i>
22.	# 276	<i>a-ya</i>	<i>pí-ni&lt;-pí&gt;-ti<sub>6</sub></i>	<i>hì-nú<sup>UTNA</sup></i>
23.	# 277		<i>HASU-sa-ru</i> <i>pí-ni-pí-ti<sub>6</sub></i>	
24.	# 280	<i>a-rú-ti<sub>6</sub></i>		
25.	# 283	<i>ma<sub>6</sub>-pu<sub>2</sub></i>	<i>pí-ti<sub>6</sub>-pí-ni</i>	<i>ra-sà+tì, MA<sub>1</sub></i>
26.	# 287	<i>ná-ná-lu</i>	<i>pí-ni-pí-ti<sub>6</sub></i>	MA <sub>1</sub>
27.	# 293	<i>´a-té-ná</i>	<i>pí-ni</i>	<i>hì-ya-wa</i>
28.	# 295	<i>ni-sa-ta<sub>1</sub></i>	<i>pí-ni-pí-ti<sub>6</sub></i>	MA <sub>1</sub>
29.	# 296	<i>PÁRA-tá-rú</i>	<i>pí-ni</i>	<i>pa<sub>5</sub>-ya-kí</i>
30.	# 298	<i>lu-ná-sa<sub>1</sub></i>	<i>lu navis/ze-lu</i>	
31.	# 301	<i>a-sa<sub>1</sub>-nú</i>	<i>pí-ni-pí-ti<sub>6</sub></i>	<i>anulus</i> [í-PÁRA
32.	# 302	<i>´MUWA-ti</i>	<i>pí-ni pí+tì-tī</i>	<i>Hì</i>
33.	# 309	<i>a-na-kí-wa<sub>9</sub></i>	<i>pí-ti<sub>6</sub></i>	<i>ta<sub>5</sub>-ru-nú, MA<sub>1</sub></i>
34.	# 310	<i>´TARKU</i>	<i>bity/pì-tī</i>	<i>a-ya-lu</i>
35.	# 312	<i>ma<sub>6</sub>-ni-le</i>	TUPA<LA>	<i>ta<sub>5</sub>-ru-nú, MA<sub>6</sub></i>
36.	# 314	<i>´tá-PÁRA</i> <i>pí-ni ´nú-wa<sub>1</sub></i>	<i>PÁRA-TUZI</i> <i>pí-ni&lt;-pí&gt;-ti<sub>6</sub></i> <i>PÁRA-TUZI</i>	<i>ta<sub>5</sub>-ru-nú</i>

Next to the ordinary type of seal characterized by a man's name, title, and place or country name as discussed in the above, there can also be distinguished a category of seals featuring two man's names instead of one. This set of seals, which seems to be modelled after the pattern of North Syrian and Anatolian seals from the Middle Bronze Age (see Figs. 19-21), records the owner's name (in 3 of the 4 instances singled out by the determinative of personal

names) next to that of his superior, the latter of which in the Cretan instances is out of reverence placed in first position.

	CHIC	MN1	MN2	title	PF 5/TN
1. # 300		<i>pí-ta<sub>5</sub>-PÁRA</i>	<i>´ARA-ta<sub>4</sub></i>	<i>pí-ni</i>	<i>ya-ta<sub>6</sub>-nú</i>
2. # 303		<i>a-té-na</i>	<i>´bity-rú</i>	<i>pí-ni</i>	<i>nú pa<sub>5</sub>-ki-wa<sub>8</sub></i>
3. # 297		<i>ta<sub>5</sub>-ta<sub>6</sub></i>	<i>´á-à</i>	<i>pí-ni</i>	<i>(pi-ya)</i>
				<i>ná pí-ti<sub>6</sub></i>	
4. # 290		<i>TARKU-sa</i>	<i>nú-ti<sub>6</sub></i>	<i>pí-ni</i>	<i>WA<sub>8</sub></i>

In combination with the evidence from the longer texts, this structural analysis leads us to the following differentiation according to ethnic background and/or language.

#### A. MNs

- (1) **Luwian:** *Aa* “Aas” (# 297, 3), *Aya* “Ayas” (# 276, 1), *Aḫarḫu* or *Aḫarku* “Akharkus” (# 332, 2; # 333, B17), *Muwa* “Muwas” (# 213, 1; # 253, 1), *Muwati* “Muwattis” (# 302, 3 [FN]), *Nanalu* “Nanazitis” (# 287, 1), *Parataru* “Parata<ra>s or Bartaras” (# 296, 2), *Satate* “Sandatis” (# 182), *Sata-E95* “Santa-??” (# 272, 1), *Sati* “Sandēs” (# 247, 1), *Sawata* “Sa(r)wa(n)tas” (# 294, 4), *Tapara* “Daparas” (# 314, 1), *Tarku* “Tarkus” (# 193; # 290, 1; # 310, 3), *Tarkumuwa* “Tarkumuwas” (# 271, 3), *Tarkutimuwa* “Tarkuntimuwas” (QMu 1980, Fig. 232), *Tata* “Tatas” (# 297, 2), *Uwa* “Uwas” (# 333, B15).
- (2) **Semitic:** *Mabu* “Mabu’u” (# 283, 1), *Pini* “Ben” (# 180), *Yatale* “Yatar” (# 258, 1).
- (3) **Pelasgian:** *aper<sub>2</sub>-ya* “Eburia” (# 256), *Arata* “Arantas” (# 300, 2), *Kunawa* “Gouneus” (# 333, B12), *Nuwa* “Nuwas” (# 314, 3).
- (4) **Kaskan:** *Pitapara* “Pittaparas” (# 255, 2; # 300, 1).
- (5) **Egyptian:** *Manile* “Men<-kheper>-r’” (# 312, 1).
- (6) **Greek:** *Atena* “Athena(ios)” (# 293, 1; # 303, 1), *Idumana* “Idomeneus” (# 333, B9), *Nisata* or *Nasatu/a* “Nestor” (# 295, 2; # 333, A1; 6; B2; 20; 24; 30).
- (7) **hybrid** (if not GN): *Paluziti* “Baluzitis (D sg.)” (# 328), combination of Semitic *Ba ‘al* “lord, ruler” with Luwian *ziti-* “man”.
- (8) **unclear:** *Anakiwa* “Ankiwas” (# 309, 1), *Aruti* “Aruntis” (# 280, 1), *Asanu* “Asanus” (# 301, 1), *bityru* “Bitylos” (# 303, 2),

*Lunasa* “Lunasa(s?)” (# 298, 2): first element as in Ugaritic *Lunadusu* (old reading)?, *Mana* “Minos” (# 257, 1): compare the Egyptian ethnic *Mnws* or Lydian *Manes*, *Mulu-arcus cum sagitta* “Mulu-??” (# 236, 1), *Nuti* “Nutis” (# 290, 2), *Pisarū* “Pisaros” (# 294, 4), *Sanama* “Sanemas” (# 196): paralleled for a Sicilian in Cypro-Minoan, *Sr/Isali* “Ser/Isali(s?)” (# 039, 2), *Tale* “Thales” (# 126): Phoenician or Greek?, *Tarḫu(nt)muki* “Tarkhumuki(s?)” (# 128): first element Luwian, but second unclear.

#### B. Titles

- (1) **Luwian:** *ḥarmaḥi-* “man (= Sumerian LÚ)” (# 333, B27), *labarnas* “king” (# 271, 3), *magistratus* (# 193): magistracy of unspecified nature, considering the fact that it is expressed by the torque sign perhaps rooted in the metal industry, *PÁRA-TUZI* “viceroy” (# 314, 4-5): in actual fact, as it seems, the deputy of the great intendent, see remark sub *TUZI*, *sol suus* “his majesty” (# 297, 1; # 309, 2 (2x); # 333, A13): titular expression reserved for great kings (= LUGAL.GAL), *tupala-* “scribe” (# 312, 2), *tipara* = shorthand variant of *labarnas* (CMS VI, 1, no. 97b), which in turn is a variant of *labarnas* “king” (see above) characterized by *t/l*-interchange, *TUZI* “guard” (# 039a): in combination with Sumerian LÚ for “commander of the guard”,<sup>94</sup> see sub (4) below and note that in Cretan hieroglyphic this title seems to have been upgraded to “great intendant”, as in case of the text of the Phaistos disk (# 333, B8), *zelu* “admiral” (# 298, 2): corresponding to Cypro-Minoan *zelu* or *zilu* for a nautical functionary.<sup>95</sup>
- (2) **Semitic:** *lu* = Sumerian LÚ “man” (# 039: in combination with *TUZI*; # 298: in combination with *navis*), *pini* = Ugaritic *bn* “representative (lit.: son = form of address of a junior official)” (PF 1), *saru* “king” = Akkadian *šarru* “king (= LUGAL)” (# 277, 1: in combination with *HASU*; # 294, 4; # 333, A11; B12; 15; 17).
- (3) **Egyptian:** *nswt bity* “king of upper and lower Egypt” (# 018), *bity* (# 262; # 272; # 310, 4) or *piti* “king” (PF 2 and 4; also occurring as *pì-ti*, see CMS II, 2, no. 102, 3), *sr* “noble, official” (PF 7).
- (4) **hybrid:** *HASU-saru* = Luwian *HASU* with Semitic *šarru* “prince (lit.: descendant of the king)” (# 277, 1), *lu navis* = Sumerian LÚ in combination with Luwian *navis* “nauarkh” (# 298, 1), *lu TUZI* = Sumerian LÚ in combination with Luwian *TUZI* “commander of the guard” (# 039a), *pini-piti* = Ugaritic *bn* with Egyptian *bity* “prince

<sup>94</sup> For Sumerian LÚ- in cuneiform Luwian, see KBo XXII 254 Rs. 10.

<sup>95</sup> Linear D tablet inv. nr. 1687, lines 8, 10, and 20, see Woudhuizen 2016: 189-220.

(lit.: son of the king)” (PF 1 and 2, also occurring in abbreviated variant as PF 3).

### C. Geographic names

- (1) **Cretan (unclear):** *Misaru*, abbreviation *MA* “the Mesara” (# 333, A1; 26; 30; B7; 8; abbr. # 236, 2; # 247, 3; # 283, 4; # 295, 4; # 312, 2), *Payaki* (ethnonym, N(m/f) pl.) “Phaiakians (= inhabitants of Skheria)” (# 296, 4), *Payatu/a* “Phaistos” (# 333, A2; B5; 10; 13), *Rasutu/a* or *Rasati* “the Lasithi” (# 333, A9; 16; 19; 22; 25; # 283, 3), *Ritina* or *Ruti* “Rhytion” (# 333, B22; 29; # 294, 2-3; CMS VI, 1, no. 97a-c), *Tarunu* (D sg. *Taruni*) “Atlantis” (PF 6; # 255, 1).
- (2) **Luwian:** *Asuwiya* “Assuwian” (# 333, B11) adjective of the west Anatolian country name *Assuwa*, *Kunasa* “Knossos” (# 333, A14; 20) toponym belonging to the Luwian group in *-ss-* and *-nth-*.
- (3) **Semitic:** *Ayalu* “Malia” (# 310, 2) < Semitic *ajalu* “stag”,<sup>96</sup> cf. Linear B *e-ra-po ri-me-ne /Elaphōn limenei/* “at Stags’ Harbor”.
- (4) **Pelasgian:** *Pakiwa*, cf. Linear B *pa<sub>3</sub>-ko-we* “Pyrgiotissa” (# 303, 4), *Sahurwa* or *Sahurwa* “Skheria (= Hagia Triada)” (# 332, 1; # 333, A28; 31; # 271, 2).
- (5) **Greek:** *Hiawa* or *Hiyawa*, abbreviation *Hi*, “Akhaia” (# 246, 2; # 293, 3; # 333, A5; abbr. # 302, 3) in Luwian writing variant.
- (6) **Levantine:** *Hinu* “Canaan”, cf. Linear B *ki-nu-qa* = *Kinahhi* or *Kinahna*.
- (7) **Central Mediterranean:** *Lipara* “Lipari”.

### D. GNs

- (1) **Luwian:** *Tarhu(nt)* “Tarkhunt” (# 333, A13).
- (2) **Semitic:** *Asasara* “Asherah” (LF), *Adu* “Haddu” (# 333, B3), *Tenat-* or *Tenit-* “Tanit” (# 294, 1 [2x]).
- (3) **hybrid** (if not MN): *Paluziti* “Baluzitis (D sg.)” (# 328), combination of Semitic *Ba‘al* “lord, ruler” with Luwian *ziti-* “man”.

#### 1.1.4.1 Historical inferences: Tarunu = Atlunu

From our overview of the seals or sealings bearing testimony of the categories MNs, titles, and place or country names, it appears that, with a total of 8 occurrences, the most frequent geographic name *Tarunu* (D sg. *Taruni*) “Atlunu”, occurs as much as 5 times in combination with the highest titular expression, *bity* or *piti* “king” (#

<sup>96</sup> Cf. Biblical *Ajjalon* “deerplace” (Joshua 10:13).

255, # 257, # 262, # 272, # 309). Accordingly, it must have been the most important realm in Crete, that is to say at least during the period to which the seals in question belong.<sup>97</sup> In contrast with this observation, it is conspicuous that the Mesara, in its abbreviation *MA*, or when represented by the ethnonym *Payaki* “Phaiakians” (formation of similar type as *Muški* “Phrygians”), turns up as much as 5 times in association with a lower title, *pinipiti* “prince”, *pini* “representative” or *tupala* “scribe” (# 247, # 283, # 295, # 296, # 312),<sup>98</sup> and even then sometimes as an adjunct to the geographic name *Tarunu* “Atlunu” (# 312) or *Rasati* “the Lasithi” (# 283), as it is the case with its only association with *piti* “king” (# 309). If we realize, then, that the only associations of geographic names other than *Tarunu* “Atlunu” with the highest recorded title, namely of *Saḥarwa* “Skheria” in the Mesara with *labarnas* “king” (# 271) and of *Ayalu* “Malia” and perhaps also the abbreviation *MA* for the Mesara with *bity/piti* “king” (# 214; # 310), may safely be assigned to the Middle Bronze Age period (see section I.1.6 below), it may reasonably be inferred that the seals in question date from the Late Bronze Age and that during this particular period the Mesara was subject to *Tarunu* “Atlunu” and, presumably subsequently, *Rasati* “the Lasithi” (cf. Schachermeyr 1964: 68-69 on the fact that the MM palace of Phaistos is larger than the LM one). At any rate, Atlunu,

<sup>97</sup> Even though solar symbols may occasionally turn up as decorative motifs, it seems not the result of mere chance that in three of the five instances the title of the king of Atlunu is associated with running spirals representing the rising and setting sun (# 255, 3), a radiant sun (# 257, 2), and even small winged sun-discs (# 309, 2). To all probability we are dealing with signs here, from which it necessarily follows that the rulers of Atlunu in question considered themselves equals of their colleagues in Egypt (*s3 R c* “son of Re”) and Anatolia (<sup>d</sup>UTU<sup>si</sup> “his sun”), in other words: great kings! See further section I.4 below. For additional evidence of a solar cult in Minoan Crete, see # 264, 1 depicting an adorant in front of a rising and setting solar disc.

<sup>98</sup> It is interesting to note that alongside the composite *pinipiti* “prince”, we also come across the sequence *pini nV piti6*, as in # 264 (with *ni*) and # 297 (with *na*), incorporated in our lists, as well as # 308 (with *nu*). From the context it is absolutely clear that we are dealing here with a representative (*pini*) of (*nV*) the king (*piti6*), so that the element *nV* obviously corresponds to the Egyptian preposition *n* “of” in like manner as it is the case with the sequence *bn n* “son of” from the Egyptian exercise in writing Keftiu names as referred to in the above. Alternatively, basically the same sense can also be rendered by a Luwian based expression in which *pini* “representative” or *pinipiti6* “prince” is followed by the Luwian (originally pronominal) dative singular in *-ti* of *piti* “king”, *piti6* or *piti6ti* or *piti6ti* as in # 246, 1, # 302, 2, and # 314, 8, so that the functionary in question is specified to act “on behalf of the king”.

cannot be dissociated from the mythical Atlantis. This is foremost political entity in the Aegean at least during the Late Bronze Age until it went to wreck and ruin as a result of the for northeastern Minoan Crete (i.e. precisely the main distribution zone of the seals with profane formulas, see Fig. 12) disastrous Santorini eruption, now datable to the later part of the reign of Tuthmosis III (1479-1425 BC), say *c.* 1450 BC. According to the evidence of seal # 257 (= the most beautiful one, used by Evans for the cover of his book of 1909) Atlunu was once ruled by a king *Mana* “Minos” who in myth embodies the supremacy of Knossos over Malia and Phaistos as ruled by his brothers Sarpedon and Rhadamanthys, respectively.<sup>99</sup> To this comes that the Mesara happens to be treated as an annex to the successor of *Tarunu* “Atlunu”, *Rasutu* “the Lasithi”, in the text of the Phaistos disk (*c.* 1350 BC, see section I.10 below). At any rate, it is specified here to be under the sway of the king of Knossos, Idomeneus, in his function as (LÚ) *TUZI* “great intendant” over the Mesara on behalf of his superior, Nestor, somewhat vaguely addressed as *uri atu Hiyawa* “great (man) (D sg.) in Akhaia” in this particular text (# 333, A4-5), but king of Greek Pylos according to Homeros. Note in this connection that according to his own Cretan hieroglyphic seal (# 295), Nestor is only *pinipiti MA* “prince (of) the Mesara”. This coincides with the fact that the region of Crete in its entirety falls under the authority of a great king (= *sol suus* “his majesty” in the text of the Phaistos disk [# 333, A13]). The great king in question is plausibly to be identified as Tarkhun(d)aradus of Arzawa (see section I.10 below), a contemporary of Amenhotep III (1390-1352 BC), and, what is more, considered an equal, i.e. great king, by the latter in the El Amarna letters (as deducible from the fact that this pharaoh wants to fortify his alliance with Tarkhun(d)aradus by marrying one of his daughters) and as such the only representative of this rank in the region at the time.

Note that the overall plausibility of the given readings is further enhanced by the fact that most of the place-names have a bearing on places and regions in Crete, as is to be expected. The only exceptions

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<sup>99</sup> It is interesting to note in this connection that in Egyptian hieroglyphic texts of the Middle and Late Bronze Age (i.e. from the period of Sinuhe, who lived during the reigns of Amenemhat I [1973-1944 BC] and Sesostris I [1953-1908 BC], to that of Ramesses III [1184-1153 BC]) there occurs a reference to the population of Crete alongside Keftiu (which is related to Akkadian *Kaptara* and Biblical *Kaphtor*), namely *Mnws* (Vercoutter 1956: 159-182), of which the root appears to be a reflection of the royal name *Minos* and which therefore likely confronts us with a contemporary equivalent of our modern “Minoans”.

from this pattern are: (1) *Hiyawa*, the typical Luwian indication, characterized by aphaeresis, of Akhaia,<sup>100</sup> which, in like manner as Hittite *Ahhiyawa*, refers to the nearby Greek mainland with which Crete maintained intimate contacts from *c.* 1600 BC onwards—the latter even being intensified after the for Minoan Crete, in particular its northeastern province, disastrous Santorini eruption of *c.* 1450 BC and the subsequent Mycenaean conquest of the island; (2) *Hinú<sup>UTNA</sup>*, obviously shorthand variant of the country name *Kinahhi* or *Kinahna* “Canaan” as it occurs in a Linear B inscription from the palace of Knossos, viz. *ki-nu-qa* (KN Ap 618);<sup>101</sup> and (3) *anulusLípára*, which, of course, cannot be dissociated from the name of the Aeolian island of *Lipari*. The latter two of these toponyms represent archaeologically assured trade connections of the Minoans with the east and the west during the Late Bronze Age.<sup>102</sup>

## 5. GRAMMAR

In the preceding section I.1.3 on what appear to be reasonably clear contexts and section I.1.4 on the structural analysis of the legends of the seals or sealings, we have come across the following evidence for grammar.

	NOMEN	
	sg.	pl.
N(m/f)	—	-i
A(m/f)	—	
N-A(n)	—	-a
D	-e, -i, -ti	-a(i)
G	-sa (Akk. -i)	
Abl.	-ti	

<sup>100</sup> After its discovery in the bilingual inscription from Çineköy, dating from the 8th century BC, this Luwian form of the ethnic has now also been attested in Ugaritic texts from the final stage of the Late Bronze Age, see Singer 2006: 250-251; 257-258, note 70.

<sup>101</sup> Woudhuizen 1992a: 46; cf. Linear D *ki-nu-ki*, see Woudhuizen 2016: 196-200 on tablet inv. nr. 1867, line 3.

<sup>102</sup> For Minoan ware in the Levant, see Warren & Hankey 1989; for Minoan ware (and a seal stone) in the central Mediterranean, see Vagnetti 2003.

PRONOMEN		
	sg.	pl.
N(m/f)	<i>amu, ti</i>	
A(m/f)	<i>i, ina</i>	<i>ii</i>
N-A(n)	<i>i/ya, ku, taya</i>	<i>ia</i>
D	<i>(a)mi, -mi, -ti</i>	
G	<i>misa, tisa</i>	<i>iyasa, tiyasa, uwisa</i>
VERBUM		
	sg.	pl.
3rd pers./present tense	<i>-ti</i>	
3rd pers./past tense	<i>-ta</i>	<i>-<sup>n</sup>te</i>

Table IV. Overview of the evidence for (pro)nominal inflection & verbal conjugation.

Note that the G sg. may, just like in cuneiform Luwian (Laroche 1959: 155 [KUB XXXV 54 Vs. II 40: *ša EN SISKUR.SISKUR* “of the lord of sacrifices”]), alternatively be expressed by the Akkadian genitive particle *ša* “of”, as in the sequence *SASA sa* “the seal of” as attested in various writing variants for sealing # 039a and seals # 283, 1 and # 297, 1 or in the sequence *sa<sub>5</sub> TARKU* “of Tarkhunt” from # 294, 2 as well as in several passages from the text on the B side of the discus of Phaistos, like e.g. *sa Payata Asuwiya Kunawa saru* “of the Assuwian Phaistos (is) Gouneus king” in # 333, B10-12. In glyptic sources only, the G sg. may even be expressed by the Egyptian preposition *n* “of” (Gardiner 1994: 66, § 86), as in *pini ni piti* or *pini na piti* “representative of the king” of seals # 264, 2-3 and # 297, 4, and *pini nu Pakiwa* “representative of Pyrgiotissa” of seal # 308, 3-4.

#### *Examples of nominal declension*

- (1) **N(m/f) sg.:** *Tarkutimuwa* “Tarkuntimuwas” (QMu), *Tale* “Thales” (# 126), *Satate* “Sandatis” (# 182), *Sanama* “Sanemas” (# 196), *Muwa* “Muwas” (# 253, 1), *Pitapara* “Pittaparas” (#

255, 2), *Mana* “Minos” (# 257, 1), *laparana Tarkumuwa* “labarnas Tarkumuwas” (# 271, 3), *Aruti* “Aruntis” (# 280, 1), *Pisaru* “Pisaros” (# 294, 4), *Parataru* “Bartaras” (# 296, 2), *Anakiwa* “Ankiwas” (# 309, 1), *Tarku* “Tarkus” (# 310, 3), *Tapara* “Daparas” (# 314, 1), *Nuwa* “Nuwas” (# 314, 3), *Nisata*, *Nasatu/a* “Nestor” (# 295, 2; # 333, A6; B2), *Aḥarḥu*, *Aḥarku* “Akharkus” (# 332, 2; # 333, B17), *Payatu* “Phaistos” (# 333, A2; B5), *Tarḥu(nt)* “Tarkhunt” (# 333, A13), *Adu* “Haddu” (# 333, B3), *Idumana* “Idomeneus” (# 333, B9), *Kunawa* “Gouneus” (# 333, B12), *Uwa* “Uwas” (# 333, B15).

- (2) **A(m/f) sg.:** *Payata Asuwiya* “Assuwian Phaistos” (# 333, B10-11).
- (3) **N-A(n) sg.:** *taya* <sup>uwi</sup>*ḥawasawa* “this inscribed altar stone” (# 328).
- (4) **D sg.:** *wati* “for the town” (# 109a), *Taruni* “with respect to Atlunu” (# 255, 1), *pititi* “on behalf of the king” (# 246, 1; # 302, 2; # 314, 8), *Tenite*, *Tenate* “to Tanit” (# 294, 1 [2x]), *Paluziti* “for Baluzitis” (# 328), *Nasati* “for Nestor” (# 333, A3; B20; 24; 30), *uri* “for the great (man)” (# 333, A4), *Rasuti* “for the Lasithi” (# 333, A16; 19; 22), *wati* “for the town” (# 333, A18), *(a)mi tati* “for my father” (# 333, B16; 28).
- (5) **G sg.:** *Tarkusa* “of Tarkus” (# 193; # 290, 1), *sarusa* “of the king” (# 294, 4), *Ḥanusa* “of Khanus” (# 332, 3), *misa anulus-sa* “of my realm” (# 333, A24), <sup>u</sup>*utnasa* “of the sworn district” (# 333, B14), *ḥarmahasa* “of the man” (# 333, B27); Akk. *tisa* <sup>u</sup>*saruti* “of your kingship” (# 333, A14-5).
- (6) **Abl. sg.:** *TINATA/I+ti* “because of the tithe” (# 294, 3).
- (7) **N(m/f) pl.:** *Payaki* “the Phaiakians” (# 296, 4).
- (8) **N-A(n) pl.:** *ia l(a)para* “these double axes” (# 332, 1).
- (9) **D pl.:** *masa(i)* “to the god(s)” (# 003γ; # 139).

*Examples of pronominal declension*

- (1) **N(m/f) sg.:** *amu Sr/Isali* “I (am) Ser/Isali(s?)” (# 039b), *amu Tarku* “I (am) Tarkus” (# 310, 3), *ti* “you” (# 333, A7).
- (2) **A(m/f) sg.:** *i* “this” (# 294, 4), *ina* “with respect to this (person)” (# 050b).
- (3) **N-A(n) sg.:** *taya* <sup>u<sup>w</sup></sup>*hawasawa* “this inscribed altar stone”, *i* or *ya* “this” (# 038b, # 090a, # 105a, # 112a, # 294, 4; # 333, B21; 26), *ku* “what” (# 333, A6; 7; 23 (2x), B2).
- (4) **D sg.:** (*a*)*mi tati* “for my father” (# 333, B16; 28), *-mi* “for me” (# 333, B19), *-ti* “for you, to you” (# 333, A7; 12; B3; 18; 21; 26).
- (5) **G sg.:** *misa* “of me” (# 333, A8; 24), *tisa* “of you” (# 333, A10; 14; 20; 23; 27; B6; 25).
- (6) **A(m/f) pl.:** *ii* “these” (# 294, 2 [3x]).
- (7) **N-A(n) pl.:** *ia l(a)para* “these double axes” (# 332, 1).
- (8) **G pl.:** *iyasa* “of these” (# 333, B1), *saru tiyasa* “of your vassal kings” (# 333, A11), *uwisa* “of you (pl.)” (# 333, B18; 22; 26).

*Examples of verbal conjugation*

- (1) **3rd pers. sg. of the present tense:** *sati* “he or it is” (# 333, A1; B8), *tiwati* “he brings” (# 333, A12; B3), *asti* “it is” (# 333, B6),
- (2) **3rd pers. sg. of the past tense:** *ata* “he made” (# 332, 2), *sata* “he was” (# 333, B23).
- (3) **3rd pers. pl. of the past tense:** *tete* “they have given” (# 294, 1; 3).

From this survey, it appears that the Cretan hieroglyphic documents are primarily conducted in the Luwian tongue, compare the grammatical overview presented in Woudhuizen 2015a: 41, Table I (note especially the omission of N(m/f) and A(m/f) sg. ending in the realm of the noun, and for the use of the G sg. for pl. as well see p. 37); 247-249, Table II (with the D sg. *-i* and the pronouns of the

2nd pers. sg. *ti* and pl. *uwī*). Note in this connection that the use of the pronominal D sg. in *-ti* in the realm of the noun is paralleled for the also peripheral Luwian dialect of Late Bronze Age Cyprus as attested for Cypro-Minoan texts, like in case of *telu Sanemeti* “delivery to Sanemas” as attested for the Enkomi cylinder seal inv. no. 19.10, lines 25-26 (Woudhuizen 1992a: 96; 115; Woudhuizen 2006a: 44-45 or van Binsbergen & Woudhuizen 2011: 224-225). This primarily Luwian nature of the language of the Cretan hieroglyphic texts coincides with the fact that, as we have just seen in the preceding section, the overwhelming majority of the analyzable MNs are of Luwian background. But the latter observation should not refrain us from realizing that forms like *Asasarame* “oh Asherah” (Semitic vocative particle *-m*), *yatanu* “he has given” (Semitic verbal form *ytn*), and *telu* (Semitic *tēlû* “delivery”) indicate that what appears to be a basically Luwian population not uncommonly resorted to Semitic (or, in case of the preposition *n* “of”, even to Egyptian), as a kind of church Latin for religious or as a *lingua franca* for administrative purposes.

## 6. TOWARDS A CHRONOLOGICAL FRAMEWORK

My reconstruction of the chronology for the Cretan hieroglyphic documents, taking the archaeologically based dates by Jean-Claude Poursat (as presented in CHIC: 27-31; preceded in our survey by a number) as a starting point and supplemented by less secure dates based on stylistic and historical considerations (preceded in our survey by a letter), is as follows (newly introduced abbreviations: P = Palace; HD = Hieroglyphic Depot; EM = Early Minoan; MM = Middle Minoan; LM = Late Minoan):

### MBA

1. Arkhanes	LF # 202, # 252, # 315	EM III/MM I	c. 2000 BC
a. Crete	PF 1 # 213	earliest group	c. 2000-
b. Malia	QMu 1980, Fig. 231	earliest group	c. 2000-
2. Malia P	PF 7 # 271	after MM IA/labarnas	c. 1900-1650 BC
c. Sitia	PF 4 and 7 # 310	Cappadoc. style hand	c. 1900-1750 BC
3. Malia QMu	PF 6 # 131	MM II (end)	c. 1700 BC
4. Knossos HD	PF 5 # 162	MM II (end) (?)	c. 1700 BC
5. Samothrace	LF # 135-7	MM II or MM III	c. 1700-1600 BC

### LBA

6. Crete	PF 1 and 2	into Cypro-Minoan	c. 1600-
d. Kritsa	PF 2 # 246	king of Akhaia	c. 1600-

f. Crete	PF 4, 5 and 6 # 257	Minos-thalassocracy	c. 1550-1450 BC
g. Pyrgi, Xida	PF 6 # 309, # 312	Atlunu + MA	c. 1550-1450 BC
7. Kato Zakro	PF 2 # 138	LM IB	c. 1500-1450 BC
h. Neapolis	PF 1, 3, 5 and 6 # 314	Daparas-Keftiu <i>Dpr</i>	c. 1470-1450 BC
Santorini eruption		LM IB (end)	c. 1450 BC
i. Arkalokhori	# 332	Akharkus	c. 1390-1370 BC
j. Crete	PF 1 and 2 # 295	Nestor	c. 1370-1350 BC
k. Crete	PF 1 and 2 # 283	Lasithi + MA	c. 1370-1350 BC
8. Phaistos	# 333	LM IIIA1/2	c. 1350 BC

Table V. Overview of chronological range of the Cretan hieroglyphic script.

#### Notes

(1) The currency of the LF runs from EM III/MM I, c. 2000 BC, to MM II or MM III, c. 1700-1600 BC.

(2) The realm of Atlunu (= PF 6) existed from the end of MM II, c. 1700 BC, as a *terminus ante quem* to the end of LM IB, c. 1450 BC, being destroyed by the for northeastern Crete disastrous Santorini eruption.

(3) The wish- or transaction-formula (= PF 5), which dates from the end of MM II c. 1700 BC (?) as a *terminus ante quem*, follows the example of its Luwian forerunner in the form of the hand that gives (\*66 *PIA*, *pi*) as attested for the Erlenmeyers' seal and Hogarth no. 154 from Henri Frankfort's First Syrian Group, c. 2000-1700 BC; as this latter is replaced by a wish-formula in form of the combination of \*369 *vita* with \*370 *ASU* already on the Cilician Indilima seal from the period of Tell Atchana-Alalakh VII, c. 1720-1650 BC, its radiation to Crete must have occurred before this latter period.

(4) The trapezoid extension below the muzzle of the "bucranium" on seal QMu 1980, Fig. 231, side 3, does not depict a tongue, but renders the remains of the human body of the Minotaur-like Syrian demon as exemplified by Hogarth no. 154 from Henri Frankfort's First Syrian Group, c. 2000-1700 BC (see Woudhuizen 2004-5: 171-176); accordingly, seal QMu 1980, Fig. 231 likely belongs to the same period as its Syrian counterpart. Note in this connection that more in general the ligature of the "bucranium" with four strokes on top of it for the value *m+UWA*, as further attested for seal # 213, side 1, predates the use of its more "modern" successor E62 *MUWA*, *mu* as recorded from seal # 271, side 3, onwards.

(5) The honorific title *labarnas* as attested for seal # 271 from the palace of Malia is particularly "en vogue" at the beginning of the Old

Hittite period, *c.* 1680-1650 BC, considering the fact that the first Hittite king, Labarnas I, is named after it; note that in the earlier Kültepe-Kanesh period, *c.* 1920-1750 BC, the variant form *taparsa-*, which is reflected in the dignitary's name *Labarša*, is preferred. In combination with its archaeologically find-context above a MM IA level, seal # 271 hence may safely be assigned to an advanced part of the period of *c.* 1900-1650 BC.

(6) The three-forked rendering of the hand of the sitting man on side 3 of seal # 310 from Sitia strikingly recalls the rendering of the hand on Cappadocian seals dating from the period of *c.* 2000-1700 BC, as in case of, for example, Mouton 2002: 102, Fig. 7a (= Woudhuizen 2009: 90, Fig. 29). Accordingly, seal # 310 likely stems from about the same chronological horizon as the aforesaid Cappadocian seals.

(7) Cypro-Minoan, though basically derived from Linear A, shaped its nos. 116, 51, and 28 after the model of Cretan hieroglyphic E5 or CHIC005 *ti*<sub>6</sub> (oldest tablet from Enkomi, *c.* 1525-1425 BC), E18 or CHIC044 *pi*, and E13 or CHIC049 *ni* (RS 20.25, *c.* 1200 BC).

(8) A king of Akhaia seems only feasible from the period of the shaft graves, i.e. from the beginning of LM I, *c.* 1600 BC, onwards.

(9) The Minoan thalassocracy, *c.* 1550-1450 BC, is embodied in the mythical king of Knossos, Minos; a king of this name figures in the Theseus saga which relates the delivery of Athens from its Minoan yoke—an event situated according to Plato's myth of Atlantis just before the latter's downfall.

(10) The name of the owner of the eight-sided seal from Neapolis (# 314), *Daparas*, a prince and viceroy of Atlunu, is attested in form of *d33b3r* for an Egyptian exercise in writing Keftiu names, presumably dating from the reign of Tuthmosis III (1479-1425 BC): if we are actually dealing here with the same person, the eight-sided seal can be dated to the part of Tuthmosis III's reign which precedes the Santorini eruption.

(11) Owing to the discovery of tephra from the Minoan eruption of the Santorini volcano at Tell el-Dab'a-Avaris by Manfred Bietak in a layer from the period of the reign of Tuthmosis III (1479-1425 BC) the Santorini eruption can now positively be assigned to the end of LM IB, *c.* 1450 BC (Bietak 2000: 194). In answer to my request, this particular find-context of the tephra was explicitly confirmed by professor Bietak in a letter dated January 11th, 2002. See now also Bietak 2003: 24, which assigns the tephra to an *advanced* stage of Tuthmosis III's reign. Note that the remark in the conclusions on p. 30 of the latter contribution that "this event [= the Minoan eruption of

Thera] happened some time in the early 18<sup>th</sup> dynasty, most probably *before* the reign of Tuthmosis III [my emphasis]” is not in conformity with the information presented in the Table of p. 24 and may well be induced by the influential view among Aegean archeologists that the Santorini eruption dates to the end of Late Minoan IA, say *c.* 1500 BC. As I have pointed out before (Woudhuizen 1992a: 62-64), such a view is not compatible with the evidence presented by the geologists Charles J. Vitaliano and Dorothy B. Vitaliano in 1974 according to which tephra of the Minoan eruption of the volcano is found at the various sites sampled by them in Late Minoan IA *as well as* Late Minoan IB layers, *which, considering the fact that the eruption entails a singular event, necessarily leads us to the inference that the Late Minoan IA and IB layers in question are contemporaneous.* The latter conclusion can even be further underlined by the fact that impressions of one and the same signet ring are found in Akrotiri, the destruction of which is dated to Late Minoan IA, as well as in Hagia Triada and Sklavokambos, where these are assigned to Late Minoan IB layers (Krzyszowska 2005: 190, no. 370 [see Fig. 13]), *and that hence the eruption in actual fact took place during Late Minoan IB, in which case it can only mark the end of this particular period, commonly situated c. 1450 BC* (see further section I.3 below).

(12) After the Santorini eruption and the downfall of the Minoan thalassocracy, the Greeks from the mainland conquer the palace of Knossos, as indicated, for example, by the Linear B texts from the Room of the Chariot Tablets, dated to LM II-III A1, *c.* 1450-1350 BC. This event is also reflected in the depiction of Minoan embassies as found in the wall-paintings of the tomb of the Egyptian vizier Rekhmire, dating from the early reign of Amenhotep II (1425-1400 BC), in which the kilts of the Minoan embassies, originally painted in true Minoan style with codpieces, were replaced by Mycenaean ones without codpieces (Schachermeyr 1964: 112-115). According to the text of the discus of Phaistos (*c.* 1350 BC, see below), the Mycenaean Greeks who conquered Crete were Pylions headed by king Nestor. Greek names attested for Cretan hieroglyphic documents, like that of Nestor and Idomeneus, therefore serve as a reliable criterion for their dating to LM II onwards.

(13) Akharkus, the dedicator of the double axe of Arkalokhori (# 332), is identified as the predecessor of king Uwas of the land behind Phaistos in the text of the Phaistos disk (# 333); accordingly, the text of the double axe of Arkalokhori predates that of the discus of Phaistos by a generation.

(14) The discus of Phaistos (# 333) has been found in association with a Linear A tablet and therefore probably likewise dates to the end of LM IIIA1, *c.* 1350 BC, as a *terminus ante quem* (Achterberg e.a. 2004: 27-32). Its sender may plausibly be identified as great king Tarkhun(d)aradus of Arzawa, a contemporary of Amenhotep III (1390-1352 BC), ruling at the time of the low point in Hittite history during Tudkhaliyas III (1355-1344 BC). (His specification of Phaistos as “Assuwian” refers to an earlier historical situation, namely that of the shortlived Assuwian league, headed by one of Tarkhun(d)aradus’ predecessors from the late 15th century BC, Piyamakuruntas, and of which Phaistos formed a part.)

(15) In summary, it appears that Cretan hieroglyphic was in use as a local writing device from *c.* 2000 BC to *c.* 1350 BC, a period of 650 years. It is interesting to note in this connection that of all the standard formulas only PF 1 covers the entire period of the currency of the script.

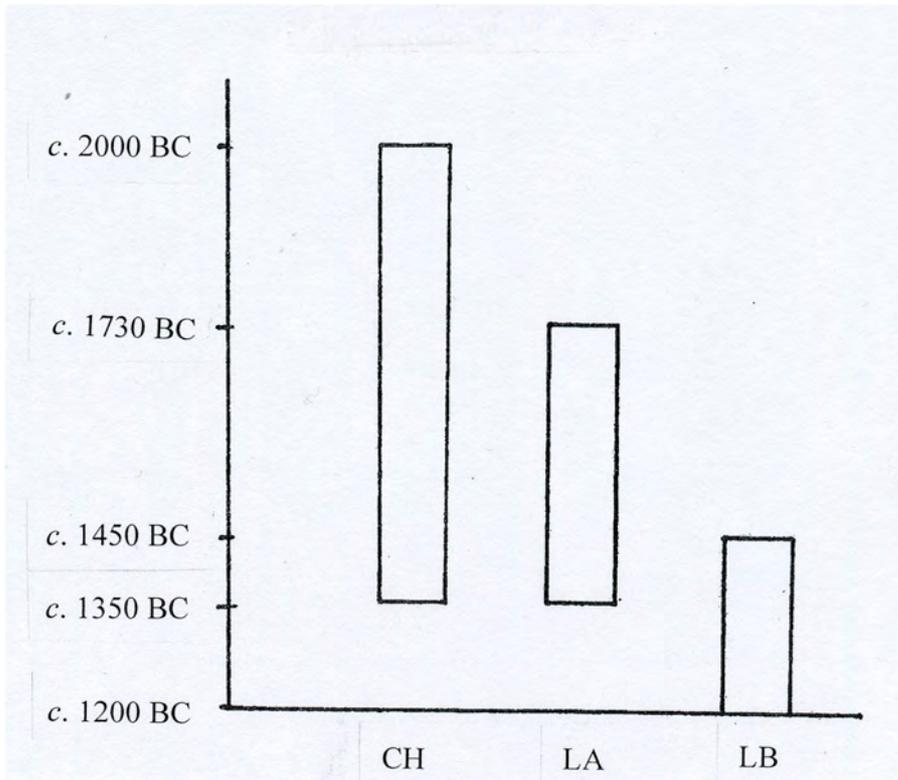
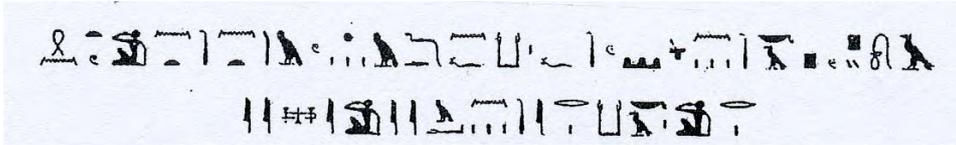
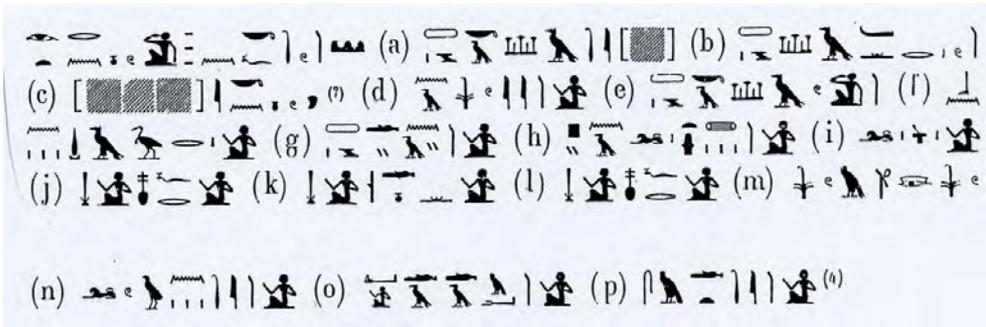


Fig. 1. Chronological range of the Cretan scripts.



“Conjuration of the Asiatic illness. This is what (the inhabitants of) the land Keftiu say: sa-n-ta-ka-pu-pi-wa-ja-’a-ja-ma-n-ta-ra-kú-ka-ra.”

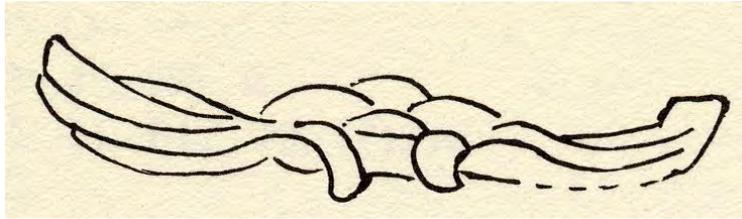
(a)



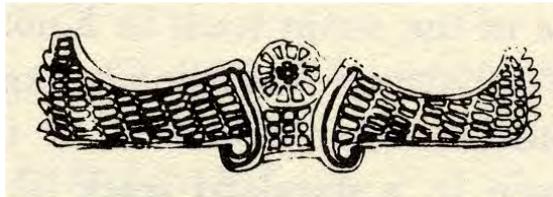
“Making names of the *Keftiu*”: (f) *bn n d33-b3-r* “the son of Daparas”, (n) *rw-w-w-n-ti-i* “Ruwantis”, (o) *mi-d3-d3-m* “Midadames”.

(b)

Fig. 2. Egyptian hieroglyphic texts: (a) with a magic spell against the Asiatic pox in the language of the Keftiu; (b) consisting of an exercise in writing Keftiu names (based on Vercoutter 1956: 82-83; 45).



a



b

Fig. 3. Winged sun disk: (a) discus of Phaistos (PD11), Crete; (b) Karakuyu, Anatolia (from Best & Woudhuizen 1988: 38, Fig. 2).

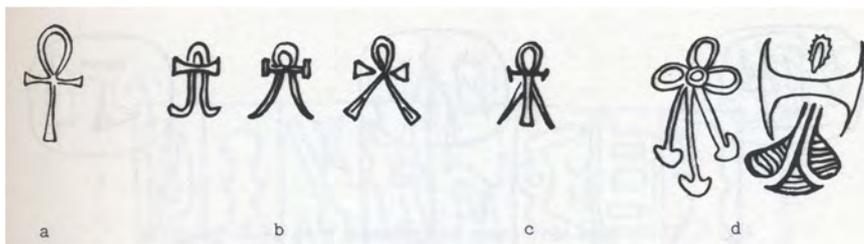


Fig. 4. Development of the Egyptian *ankh* “life” in the eastern Mediterranean: (a) Egyptian, (b) Anatolian, (c) North Syrian, and (d) Crete (from Woudhuizen 2006c: 3, Fig. 1).

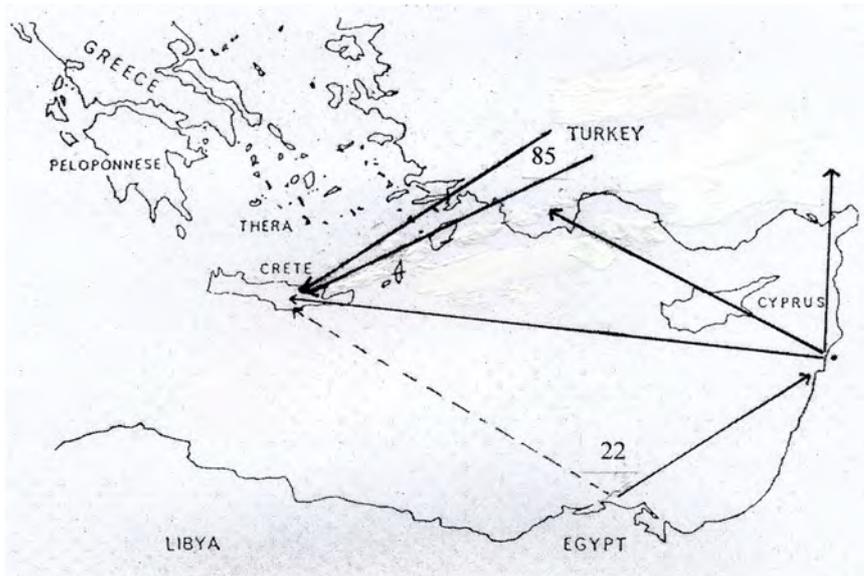
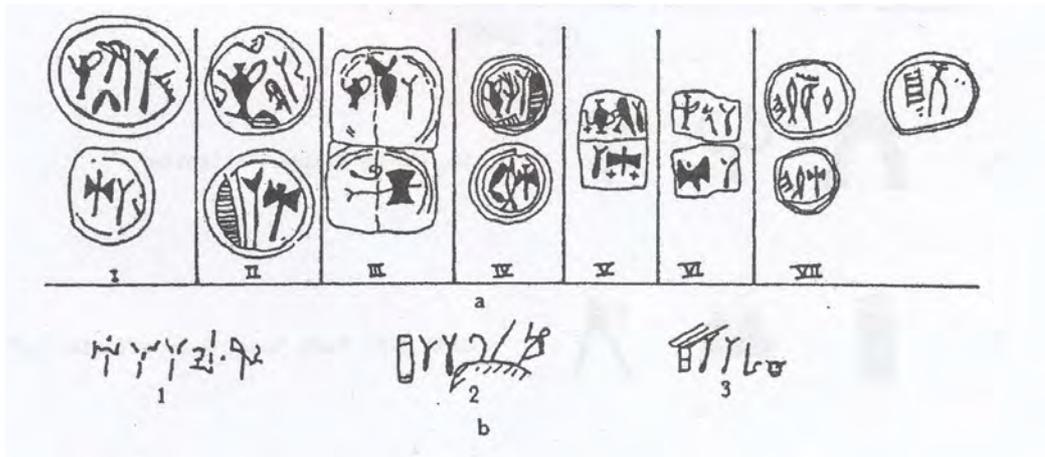


Fig. 5. Origins of the Cretan hieroglyphic script: (a) Luwian hieroglyphic (85 signs); (b) Egyptian hieroglyphic (22 signs).



- (a)  $a-sa_1-sa_1-sa-ra.me$ ,  $a-sa_1-sa_1-ra-me$ ,  $a-sa_1-sa_1-ra-mà$
- (b)  $a-sa-sa-ra.me$ ,  $ya-sa-sa-ra.me$ ,  $ya-sa-sa-ra-ma$

Fig. 6. Libation formula: (a) Cretan hieroglyphic; (b) Linear A (after Best & Woudhuizen 1988: 25).



Fig. 7. Profane formulas: (1) *pí-ni bn* “son (of)”, (2) *pí-ti<sub>6</sub> bity* “king”, (3) *pí-tī bity* “king”, (4) *pí-ni[-pí]-ti<sub>6</sub> bn bity* “prince”, (5) *ya-ta<sub>6</sub>-nú ytn* “granted”, (6) *ta<sub>5</sub>-ru-nú Atlunu* “Atlantis”, (7) *SASA UTNA sr* “seal-land-official(s)”.

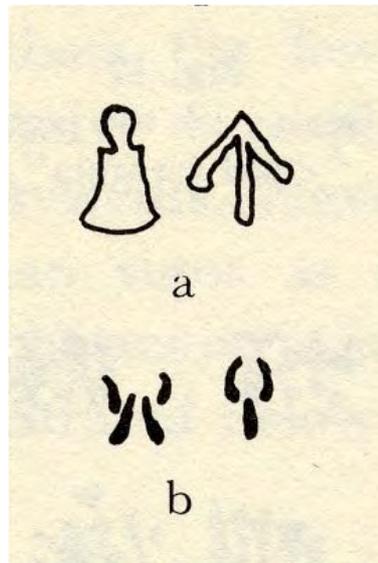


Fig. 8. “Child formula”: (a) Cretan hieroglyphic; (b) Cypro-Minoan (from Best & Woudhuizen 1988: 12, Fig. 14).

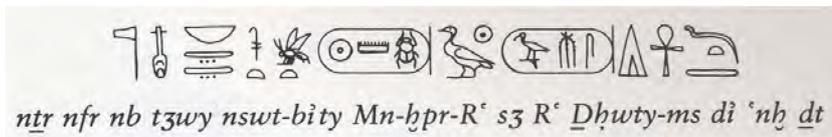


Fig. 9. Titulary featuring the names of Tuthmosis III (1479-1425 BC), with the Egyptian wish-formula *di 'nh* “granted life” (from Davies 1987: 45).

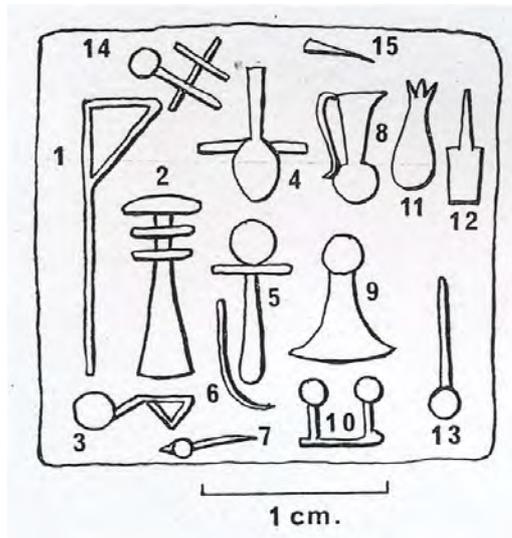
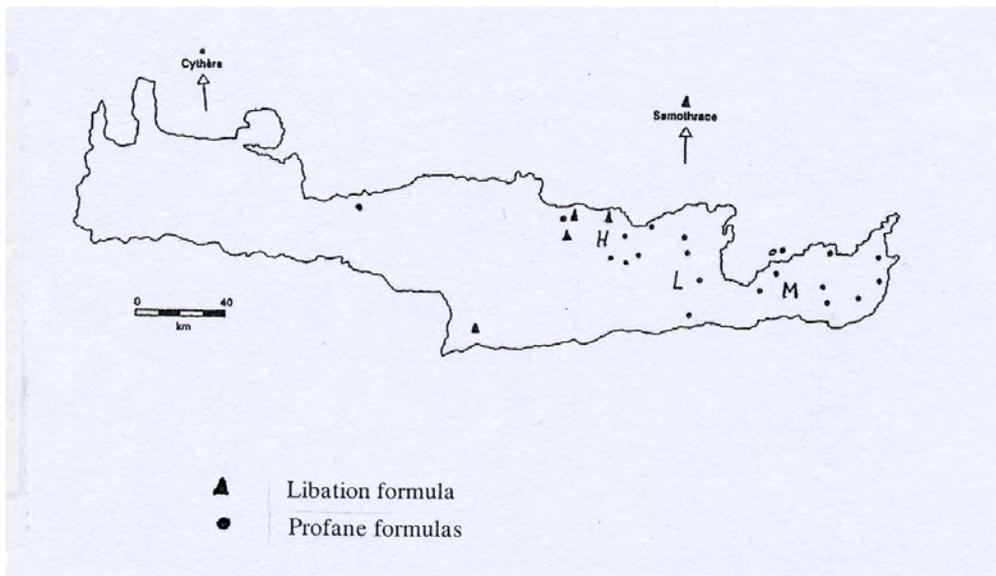


Fig. 10. Stamp seal Byblos 6593 with local variant of the Egyptian wish-formula “granted life”: (9) *di* “granted”, (5) *nh* “life”, (6) punctuation mark, (2) *dd* “stability”, (1) *ntr* “the god” (from Kenna 1970: 94, Fig. 1).



Fig. 11. Sealing Walters Art Gallery 48.1464 with Anatolian variant of the Egyptian wish-formula “granted life”: *PIA vita* (from Canby 1975: 226, Fig. 2a).



H = Heraklion, L = Lasithi, M = Mirabello

Fig. 12. Distribution of Cretan hieroglyphic inscriptions with (a) libation formula and (b) profane formulas (after Olivier & Godart 1996: 20).

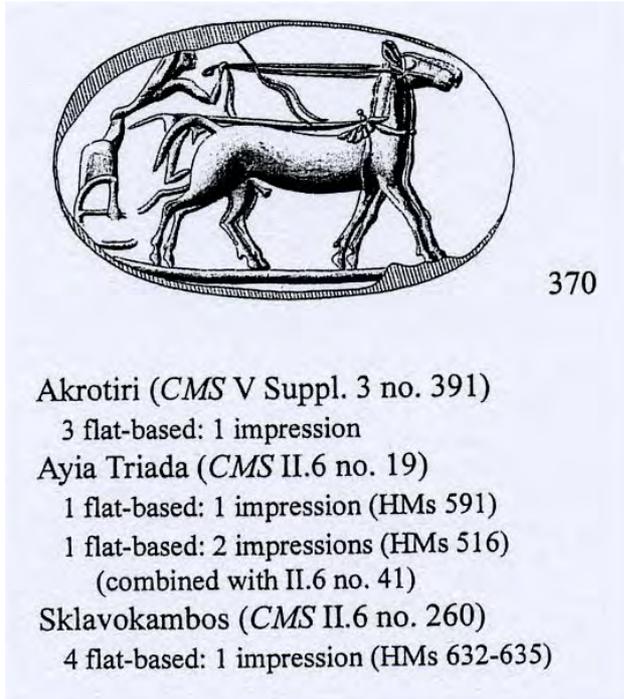


Fig. 13. Sealing found in Akrotiri on Thera in a LM IA level and in Hagia Triada and Sklavokambos in a LM IB level (from Krzyszkowska 2005: 190).



*ḥ'ty-' n Kpn Rynty*  
 “the prince of Byblos, Rynty”

Fig. 14: Scarab of Rynty (from Martin 1969: 82, Fig. 1).



*ku-zi-<sup>UTNA</sup>TESUP-pa* ḪANTAWAT *ká+r-ka-mi-sà<sup>UTNA</sup>* *tal-mi-<sup>UTNA</sup>TESUP-pa*  
 ḪANTAWAT *ká+r-ka-mi-sà<sup>UTNA</sup>* (...) *infans<sup>m</sup>*

Fig. 15. Seal of Kuzitesup (from Sürenhagen 1986: 185).



Cun. *m<sup>ar</sup>-qu-u-tim-me* LUGAL KUR *URU me-ra-a*  
 Hier. *TARKU-wá* ḪANTAWAT *mi+r(a)-à<sup>UTNA</sup>*  
 “Tarku(ntimu)was, king (of) the land Mira”

Fig. 16. Seal of “Tarkondemos” (from Doblhofer 2008: 192, Abb. 64).

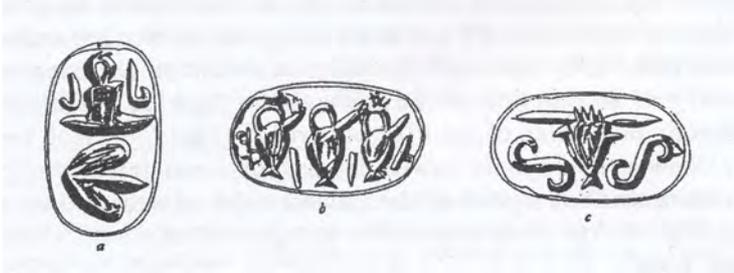


Fig. 17. Earliest seal with profane formula 1 *pí-ni bn* “son (of); representative” (Evans 1909: 10, P.5).



Fig. 18. Stamp seal from Beycesultan (Woudhuizen 2016: 176, Fig. 1 (e)).



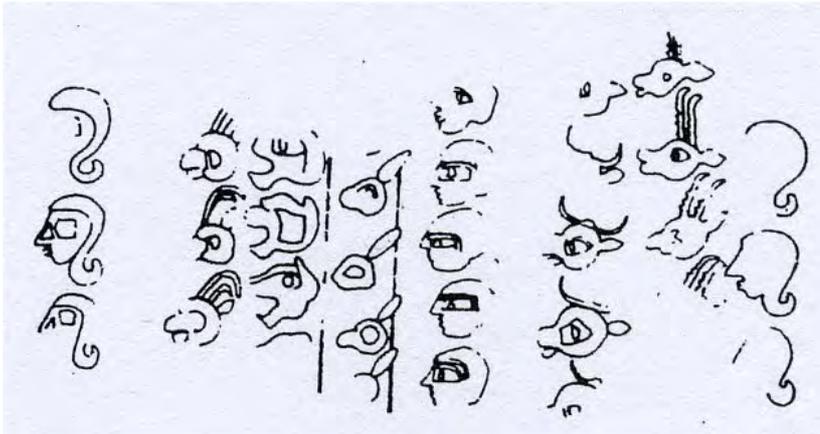
*ú-na-ra-á TARKU-ara-MUWA-á TAPAR-sà PIA*  
 “Tarkunaramuwas, governor (of) Unaras, (has) give(n)”

Fig. 19. Erlenmeyers’ seal (Erlenmeyers 1965: Abb. 5).



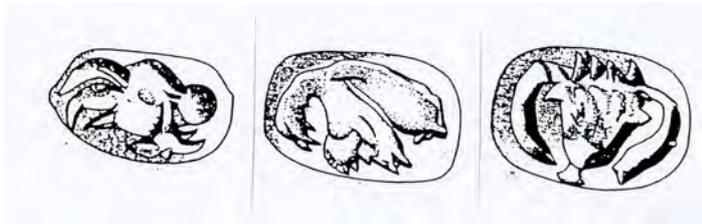
*á+ti-ná TAPAR-sà TARKU-ti<sub>5</sub>-mu-wa<sub>8</sub> PIA-á*  
 “Atinas, governor (of) Tarkuntimuwas, (has) give(n)”

Fig. 20. Seal Hogarth no. 154 (Hogarth 1920: 34; Pl. VI).



*TARKU-WALWA TAPAR<-na> á-mu-sà-mi<sub>4</sub>*  
 “Tarkuwalwas, governor of Ammusama”

Fig. 21. Sealing Alalakh no. 154 (Collon 1975: 84-85).



*TARKU-ti<sub>5</sub>-m+UWA*  
 “Tarkuntimuwas”

Fig. 22. Seal of Tarkuntimuwas from Malia (Detournay, Poursat & Vandenabeele 1980: 160, Fig. 231).

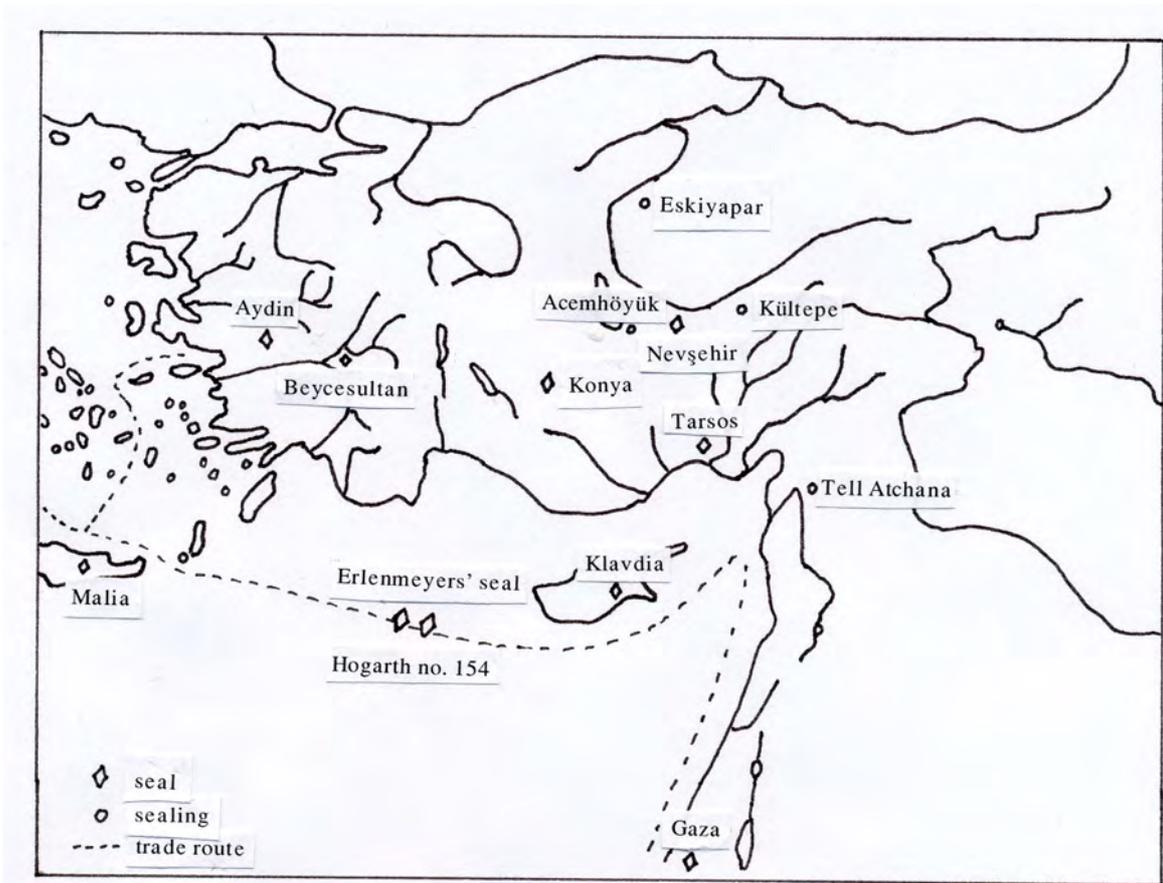


Fig. 23. Distribution of Middle Bronze Age Luwian hieroglyphic seals and sealings.



1. Area of heavy distribution of imports or their imitations of Near Eastern ornaments and daggers.
2. Routes of diffusion of metal types produced in central Europe but modeled on Near Eastern examples.
3. Trade between central Europe and the Near East.
4. Near Eastern sites in which close parallels to east central European ornaments are found: 1. Ugarit (Ras Shamra); 2. El Hamman; 3. Tell As; 4. Hama; 5. Byblos; 6. Megiddo; 7. Cyprus.
5. Distribution of faience beads between the beginning of the 2nd millennium and c. 14th century BC.

Fig. 24. Near Eastern influences on central Europe during the Early and Middle Bronze Age as exemplified by the distribution of faience beads (from Gimbutas 1965: 33, Fig. 3).

	CH		LH	value
E2				<i>AMU</i>
PD3				<i>ḪARMAḪI, ḫár</i>
E73				<i>PÁRA</i>
—				<i>PÁRANA</i>
PD6				<i>domina; mi<sub>4</sub></i>
PD2				<i>ÁMU, á</i>
E16				<i>tá</i>
PD4		E7 	31 	<i>ḪIṢḪIA, ḫì</i>

Fig. 25. Corresponding signs between Cretan hieroglyphic and Luwian hieroglyphic.

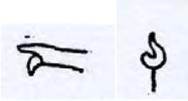
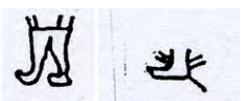
	CH		LH	value
E57			35 	<i>navis, na</i>
PD25				
E58				
E10			41 	<i>tà</i>
PD8			56-7 	<i>KATA, kà</i>
E9			66 	<i>PIA, pi</i>
PD1		E27 	80-1 	<i>SARU</i>
E11			82 	<i>ta<sub>6</sub></i>
DA8			85 	<i>l(a)</i>
PD5			90 	<i>TIWA, ti</i>

Fig. 25. Corresponding signs between Cretan hieroglyphic and Luwian hieroglyphic (continued).

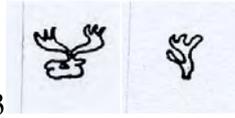
	CH	LH	value
PD29		97 	<i>WALWA, ú</i>
—		100 	<i>TARKASNA, ta<sub>4</sub></i>
E65		101 	<i>TARKU</i>
E99		102-3 	<i>KURUNT; rú</i>
E63		104 	<i>SÁSA, sà</i>
—		105 	<i>UWA, u</i>
E62		107 	<i>MUWA, mu</i>
PD26		108 	<i>SURNA, sú</i>

Fig. 25. Corresponding signs between Cretan hieroglyphic and Luwian hieroglyphic (continued).

CH		LH	value	
E64		109		<i>MALIA, ma<sub>6</sub></i>
E67		PD30		<i>ma</i>
MA12		111		<i>ḤAWA, ḥa<sub>4</sub></i>
E68		115		<i>TAPAR, tà</i>
E77		PD28		<i>lí</i>
E82		128		<i>TINTAPU, ti<sub>5</sub></i>
PD32				
E79		E80		<i>ARA, ar, ra</i>
PD31				

Fig. 25. Corresponding signs between Cretan hieroglyphic and Luwian hieroglyphic (continued).

	CH	LH	value
E59		138 	<i>wa<sub>8</sub></i>
PD33			
E84		139-  140 	<i>NATARA, na<sub>6</sub></i>
E97		151 	<i>TELIPINU, te</i>
E92		153 	<i>NURATI, nú</i>
PD36		160 	<i>WIANA, wi</i>
PD24		167 	<i>PARNA, pa<sub>5</sub></i>
E100		172 	<i>(+)ti</i>

Fig. 25. Corresponding signs between Cretan hieroglyphic and Luwian hieroglyphic (continued).

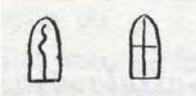
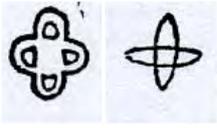
CH		LH	value
E88		174	 <i>sá</i>
E96		175	 <i>LALA, la</i>
—		179-	 <i>hordeum</i>
		180	
PD12		181	 <i>TURPI, tu<sub>6</sub></i>
E112		186/	 <i>*luk-, lu</i>
E91		445	
PD38		189	 <i>WÁSU, wa<sub>10</sub></i>
PD11		190	 <i>sol suus</i>
			

Fig. 25. Corresponding signs between Cretan hieroglyphic and Luwian hieroglyphic (continued).

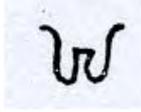
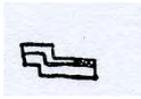
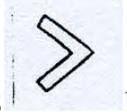
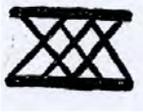
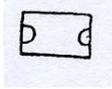
CH		LH	value
E5		191	 <i>TIWATA, ti<sub>6</sub></i>
PD39	 — 	199	 <i>TARHUNT, ha</i>
E115	 PD45	212	 <i>HAPA, na</i>
PD18	 E42	223	 <i>sa<sub>6</sub></i>
E114	 PD14	228	 <i>UTNA, tu<sub>5</sub></i>
E46	 — 	247	 <i>PARNA, pa<sub>5</sub></i>
E41		267	 <i>WANA, wa<sub>9</sub></i>
MA13		268	 <i>HWI, hu</i>

Fig. 25. Corresponding signs between Cretan hieroglyphic and Luwian hieroglyphic (continued).

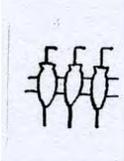
	CH		LH		value
—			271		<i>arcus c. sag.</i>
E17			278		<i>li</i>
	PD16				
E12			283-		<i>TUZI</i>
	PD15			284	
—			300		<i>HASU, ḥa<sub>8</sub></i>
—			306		<i>ḥí</i>

Fig. 25. Corresponding signs between Cretan hieroglyphic and Luwian hieroglyphic (continued).

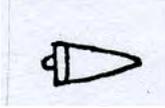
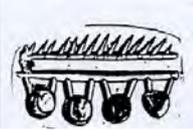
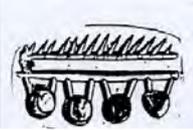
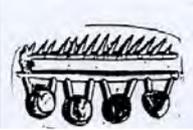
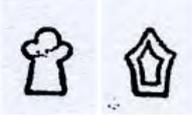
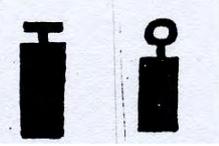
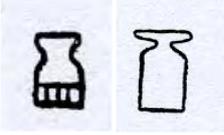
CH	LH	value
DA12 	308 	<i>ħa<sub>5</sub></i>
E15 	312- 	<i>ZITI, zí</i>
— 	313 	
— 	314- 	<i>KARKARIS, ká</i>
— 	315 	
PD44 	318- 	<i>TESUP, tí</i>
— 	319 	
E24 	327 	<i>SASA, sa<sub>5</sub></i>

Fig. 25. Corresponding signs between Cretan hieroglyphic and Luwian hieroglyphic (continued).

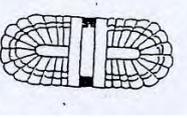
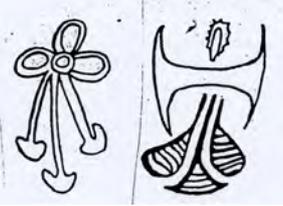
	CH		LH	value
DA11		332		<i>NAWA, na<sub>4</sub></i>
PD20		337		<i>yá</i>
E47		346		<i>kí</i>
—		360		<i>MASANA, ma<sub>4</sub></i>
—				
—		369		<i>vita; WÀSU, wa<sub>12</sub></i>

Fig. 25. Corresponding signs between Cretan hieroglyphic and Luwian hieroglyphic (continued).

CH	LH	value
 <p>PD43</p>	 <p>370</p>	<i>ASU, as, su</i>
 <p>E14</p>  <p>E26</p>	 <p>383, 1</p>	(determ. of PN)
 <p>PD47</p>		
 <p>PD46</p>	 <p>383, 2</p>	<i>+ti</i>
 <p>—</p>	 <p>391</p>	<i>mi, má, m</i>
 <p>—</p>	 <p>397-</p>	<i>TINATA/I, ta?</i>
	 <p>398</p>	
 <p>—</p>	 <p>400</p>	“1000”
 <p>E122</p>	 <p>415</p>	<i>sa</i>

Fig. 25. Corresponding signs between Cretan hieroglyphic and Luwian hieroglyphic (continued).

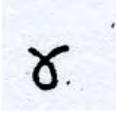
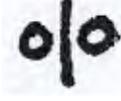
	CH		LH	value
—		419		<i>mà, mì</i>
E138		438		<i>magistratus</i>
—		439		<i>wa</i>
—		446		<i>ki</i>
—		450		<i>à</i>
—		451		<i>hur</i>
E19		488		<i>ta<sub>5</sub></i>
MA6		499		<i>ti<sub>8</sub></i>

Fig. 25. Corresponding signs between Cretan hieroglyphic and Luwian hieroglyphic (continued).

	CH	LH	value
E69		529	 <i>aper<sub>2</sub></i>
PD17	 	533	 <i>anulus</i>

Fig. 25. Corresponding signs between Cretan hieroglyphic and Luwian hieroglyphic (continued).

CH		EgH	value (CH)
E2		A1 	<i>AMU</i>
E27	 PD22 	A21 	<i>sr</i>
E11		D56 	<i>ta<sub>6</sub></i>
E74-5	 	E13 	<i>ma<sub>1</sub></i>
E85-6	 	L2 	<i>bity, pi</i>
—	 	M23 	<i>nswt</i>
E116	 	M43 	<i>WAINU, wa<sub>1</sub></i>
E4			

Fig. 26. Corresponding signs between Cretan hieroglyphic and Egyptian hieroglyphic.

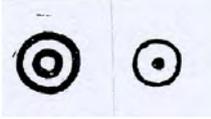
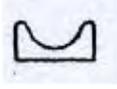
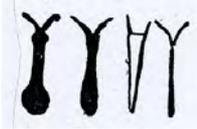
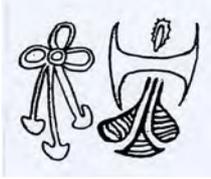
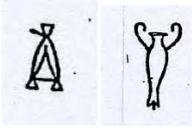
	CH	EgH	value (CH)
E109		N5 	<i>sol; tí<sub>6</sub></i>
E114		N26 	<i>UTNA, tu<sub>5</sub></i>
E41		O11 	<i>WANA, wa<sub>9</sub></i>
E60		O30 	<i>SEPIA, sa<sub>1</sub></i>
E44		O31 	<i>ya</i>
—		S34 	<i>vita; WÀSU, wa<sub>12</sub></i>
E50		T25 	<i>té</i>

Fig. 26. Corresponding signs between Cretan hieroglyphic and Egyptian hieroglyphic (continued).

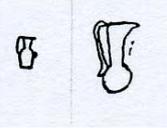
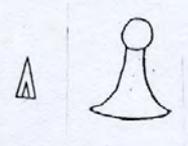
CH	EgH	value (CH)
E1 	U6 	<i>homo</i>
E21 	U21 	<i>tī</i>
E47 	W9 	<i>kí</i>
E18 	X8 	<i>pí</i>
— 	W17 	<i>hí</i>
E31 	Y3 	<i>TUPA&lt;LA&gt;</i>
E29 	Y7 	<i>bu</i>
PD11  	—	

Fig. 26. Corresponding signs between Cretan hieroglyphic and Egyptian hieroglyphic (continued).

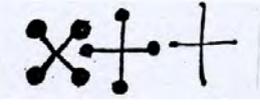
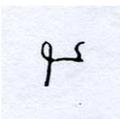
	CH	LA	value (CH)
E46		L1 	<i>pa<sub>5</sub></i>
E23		L16 	<i>ze</i>
E112		L22 	<i>lu</i>
E62		L27 	<i>mu</i>
E101		L27 	<i>ta<sub>1</sub></i>
E60		L31 	<i>sa<sub>1</sub></i>
E44		L32 	<i>ya</i>
E29		L34 	<i>bu</i>

Fig. 27. Corresponding signs between Cretan hieroglyphic and Linear A.

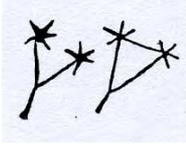
	CH	LA	value (CH)
E15		L36 	<i>zì</i>
E36		L52 	<i>a</i>
E80		L53 	<i>ra</i>
E30		L55 	<i>ru</i>
E85		L56 	<i>pì</i>
E103		L60 	<i>NIKULEON, ní</i>
E40		L61 	<i>me</i>
MA6		L78 	<i>ti<sub>8</sub></i>

Fig. 27. Corresponding signs between Cretan hieroglyphic and Linear A (continued).

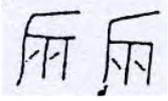
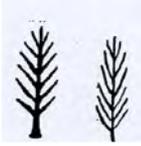
	CH	LA	value (CH)
E116		L82	 <i>WAINU, wa<sub>1</sub></i>
E4			
E21		L88	 <i>tī</i>
E97		L92	 <i>te</i>
E31		L93	 <i>TUPA&lt;LA&gt;</i>
E74-5		L95	 <i>ma<sub>1</sub></i>
E5		L101	 <i>ti<sub>6</sub></i>
E50		L102	 <i>té</i>
E47		L103	 <i>kí</i>

Fig. 27. Corresponding signs between Cretan hieroglyphic and Linear A (continued).

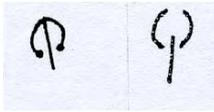
	CH		CM		value (CH)
E13			28		<i>ni</i>
E18			51		<i>pí</i>
E54			76		<i>le</i>
E5			116		<i>ti<sub>6</sub></i>

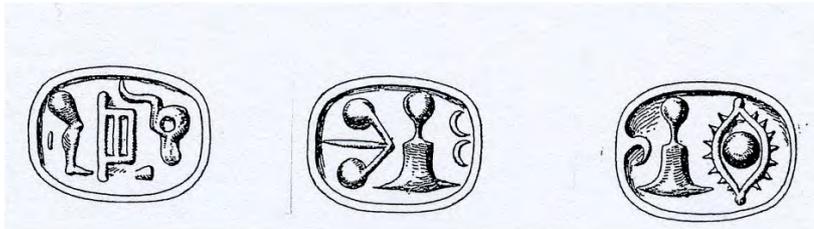
Fig. 28. Corresponding signs between Cretan hieroglyphic and Cypro-Minoan.



# 193 *SASA magistratus TARKU-sa<sub>1</sub>*  
 “seal of the magistrate Tarkus”



# 246 1. *pí-ti-ti<sub>6</sub>* 2. *hì-à-wa<sub>9</sub>*  
 “on behalf of the king of Akhaia”



#253 1. *MUWA ya-ta<sub>6</sub><-nú>* 2. *pí-ni* 3. *pí-ti<sub>6</sub>*  
 “prince Muwas has given”



# 255 1. *a-nú SASA ta<sub>5</sub>-rú-ni* 2. *pí-ta<sub>5</sub>-PÁRA* 3. *pí-tī le (2x)*  
 “under the seal with respect to Atlantis, great king Pittaparas”

Fig. 29. Selection of Cretan hieroglyphic seals with their legends in transliteration and translation.



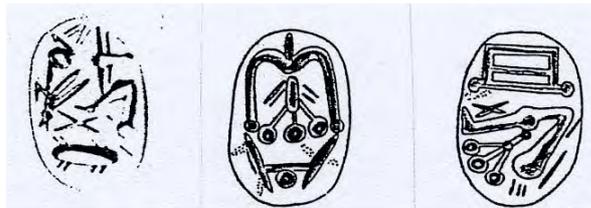
# 257 1. *ma<sub>1</sub>-na<sub>6</sub> ya-ta<sub>6</sub>-nú* 2. *pí-tī sol* 3. *ta<sub>5</sub>-ru-nú*  
 “Minos has given, great king of Atlantis”



# 264 1. *‘MUWA* 2. *pí-ni ni* 3. *pí-ti<sub>6</sub>*  
 “Muwas, representative of the king”

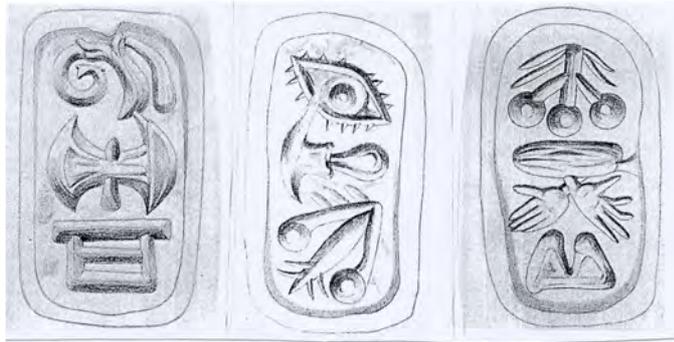


# 271 1. *SASA UTNA* 2. *sà-ḥur-wa<sub>9</sub>* 3. *la+PÁRANA TARKU-MUWA*  
 “seal (with respect to) the land (of) Skheria, king Tarkumuwas”

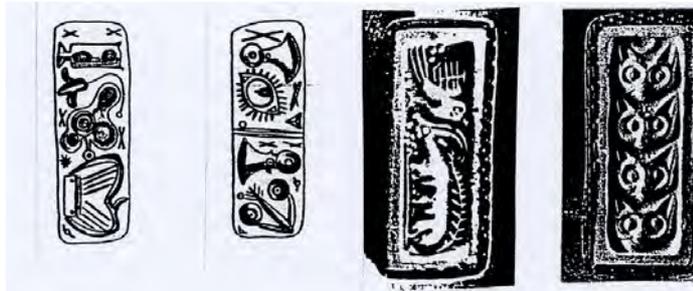


# 272 1. *sà-ta<sub>6</sub>-E95 bíty* 2. *ta<sub>5</sub>-ru-nú* 3. *ya-ta<sub>6</sub>-nú*  
 “Santa-??, king of Atlantis, has given”

Fig. 29. Selection of Cretan hieroglyphic seals with their legends in transliteration and translation (continued).



# 276 *a-ya* 2. *pí-ni<-pí>-ti<sub>6</sub>* 3. *hì-nú<sup>UTNA</sup>*  
 “Ayas, prince (of) Canaan”

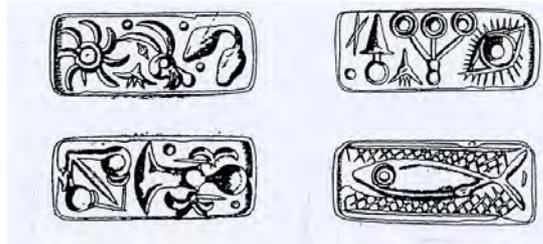


# 283 1. *SASA sá ma<sub>6</sub>-bu* 2. *pí-ni-pí-ti<sub>6</sub>* 3. *ra-sà+tì* 4. *MA<sub>1</sub>*  
 “seal (of) Mabu’u, prince (of) the Lasithi (and) the Mesara”



# 287 *ná-ná-lu* 2. *pí-ni-* 3. *pí-ti<sub>6</sub>* 4. *MA<sub>1</sub>*  
 “Nanazitis, prince (of) the Mesara”

Fig. 29. Selection of Cretan hieroglyphic seals with their legends in transliteration and translation (continued).



# 290 1. *sol TARKU-sa* 2. *ZITI nú-ti<sub>6</sub>* 3. *pí-ni* 4. *WA<sub>8</sub>*  
 “of sun-blessed Tarkus: the official Nutis, representative of Wa-??”



# 293 1. *´a-té-ná* 2. *pí-ni* 3. *hí-ya-wa* 4. *ya-ta<sub>6</sub>-nú*  
 “Athena(ios), representative of Akhaia, has given”



# 295 1. *SASA UTNA sr* 2. *ni-sa-ta<sub>1</sub>* 3. *pí-ni-* 4. *pí-ti<sub>6</sub> MA<sub>1</sub>*  
 “seal (with respect to) the land (and) official(s) of Nestor, prince  
 (of) the Mesara”

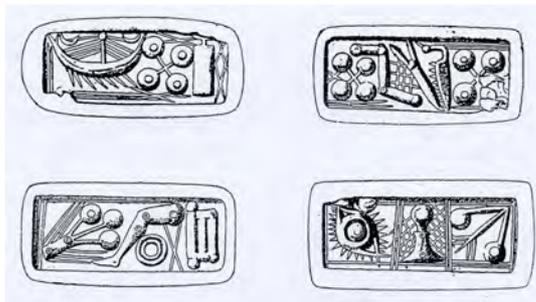
Fig. 29. Selection of Cretan hieroglyphic seals with their legends in transliteration and translation (continued).



# 296 1. *SASA UTNA sr* 2. *PÁRA-tá-rú* 3. *pí-ni* 4. *pa<sub>5</sub>-ya-kí*  
 “seal (with respect to) the land (and) official(s) of) Bartaras,  
 representative (of) the Phaiakians”



# 297 1. *SASA sà sol suus* 2. *ta<sub>5</sub>-ta<sub>6</sub> / pi-ya* 3. *´á-à* 4. *pí-ni / ná pí-ti<sub>6</sub>*  
 “seal of his majesty Tatas: Aas (has) give(n), representative of the  
 king”



# 298 *SASA lu navis* 2. *lu-ná-sa<sub>1</sub> ze-lu* 3. *ya-ta<sub>6</sub>-nú sol* 4. *pí-ni<-pí>-ti<sub>6</sub>*  
 “seal (of) the nauarkh, Lunasas, admiral, has given (thanks to) the  
 sun (on behalf of) the prince”

Fig. 29. Selection of Cretan hieroglyphic seals with their legends in transliteration and translation (continued).



# 300 1. *pí-ta<sub>5</sub>-PÁRA* 2. *˘ARA-ta<sub>4</sub>* 3. *pí-ni* 4. *ya-ta<sub>6</sub>-nú*  
 “(on behalf of) Pittapasas: Arantas, (his) representative, has given”



# 301 *a-sa<sub>1</sub>-nú* 2. *pí-ni-* 3. *pí-ti<sub>6</sub>* 4. *˘anulus<sup>1</sup>lí-PÁRA*  
 “Asanus, prince (of) Lipara”



# 303 1. *a-té-ná* 2. *˘bity-rú* 3. *pí-ni* 4. *nú pa<sub>5</sub>-ki-wa<sub>8</sub>*  
 “(on behalf of) Athena(ios): Bitylos, representative of Pyrgiotissa”

Fig. 29. Selection of Cretan hieroglyphic seals with their legends in transliteration and translation (continued).



# 309 1. *a-na-kí-wa*, 2. *pí-ti<sub>6</sub> sol suus* (2x) *MA<sub>1</sub>* 3. *ta<sub>5</sub>-ru-nú* 4. *ya-ta<sub>6</sub>-nú sol te-ru*

“Ankiwas, great king (of) the Mesara (and) Atlantis, has given (thanks to) the sun; delivery”



# 310 1. *SASA UTNA le sr* 2. *a-ya-lu* 3. *AMU TARKU sol* (3x) 4. *bity/pì-tī*  
“seal (with respect to) the sun-blessed land (and) official(s) of)  
Ayalu, I (am) king Tarkus, blessed by the sun”



# 312 1. *ma<sub>6</sub>-ni-le* 2. *MA<sub>6</sub> tupa<la>* 3. *ta<sub>5</sub>-ru-nú* 4. *ya-ta<sub>6</sub>-nú*  
“Men<-kheper>-r’, scribe (of) the Mesara (and) Atlantis, has given”

Fig. 29. Selection of Cretan hieroglyphic seals with their legends in transliteration and translation (continued).

## I.2 THE EARLIEST PICTORIAL SEALS: EVIDENCE FOR MARITIME TRADERS AND TINKERS\*

Among the Cretan hieroglyphic seals there can be distinguished what seems to be an early group, presumably dating from *c.* 2000 BC, which is largely pictorial. The favorite topics depicted on these seals entail ingots, ships, and pots. The ingots are both of oxhide type and bun shaped (see Fig. 30, 2). In one instance, on a seal from Malia, a ship can be seen loaded with oxhide ingots (see Fig. 30, 1).<sup>1</sup> As opposed to this, there are seals which associate a ship with one or three pots (see Fig. 30, 3-4). Finally, pots occur as an independent motif, either single or double or triple or even in quadruplicate when hanging on a beam for carrying, often in association with a man, the latter also being shown to carry the beam with four hanging round pots or reaching out for it (see Fig. 30, 5; Fig. 31, 1-4). The pots are either amphora-like or spouted ones or round ones when hanging on the beam for carrying.

The obsession of the early seal-cutters and their customers with pots might indicate that the pottery industry is highly significant at the beginning of Middle Minoan I, or, alternatively, that a pot stands for a highly distinguished office, like butler. In line with a suggestion by Jan Best in an unpublished paper, however, the association of the pots with ships and, through these latter, with ingots rather seems to suggest their identification as *crucibles*.<sup>2</sup> In the metallurgical industry at the time, ceramic crucibles are indispensable aids for the production of bun shaped ingots, as these are made by pouring melted metal in a pot, having the metal harden by letting it cool down, and then break its container, the ceramic pot or crucible, into pieces.

If our identification of the pots on the earliest group of Cretan hieroglyphic seals applies, it follows that the Cretan magnates who commissioned these seals advertise themselves as being engaged in metallurgy. Considering the fact that the Cretan soil lacks exploitable metal deposits of any note, these metals must have been imported overseas, which explains the connection with ships. Accordingly, the early Minoan functionaries in question may aptly be called maritime

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\* This section corresponds to Woudhuizen 2006b: 126-132.

<sup>1</sup> Best 1996-7: 125-126 = Best 2011: 125-126.

<sup>2</sup> Best *unpubl.*, p. 2.

traders and tinkers. Furthermore, it deserves our attention in this connection, that from *c.* 2300 BC onwards the production of metal weapons and implements in the eastern Mediterranean region is progressively based on tin-bronze, which constitutes a harder alloy than the previously preferred arsenic bronze.<sup>3</sup> This innovation in the metallurgical industry is probably introduced in Byblos and Ugarit by specialists from Europe, being described as the torque-bearers in archaeological terms and hence likely to be considered proto-Celts.<sup>4</sup> Whatever the merits of this latter identification, the prominent position of tin-bronze in the metallurgical industry at the time leads us to the inference that Crete must have been involved in the tin-trade. The sources of this particular tin are, given Crete's geographical position, unlikely to be sought in Afghanistan—usually considered the source of Near Eastern tin<sup>5</sup>—but rather to the west of the Levant, which in effect means either Spain or Bohemia or Cornwall—the only three locations with exploitable tin-mines of any note.<sup>6</sup> Of these, the latter two regions can be shown to have been in contact with the eastern Mediterranean world in the given period of time if we take the distribution of faience beads into consideration (see Fig. 24). In this connection, then, it might be of relevance to note that the hieroglyphic script betrays Cretan relations with the proto-Celts of Byblos and Ugarit and their relatives in Europe (esp. Bohemia) in the form of the torque-sign, E138. With a view to the predilection of the commissioners of the earliest group of Cretan hieroglyphic seals with the metallurgical industry and metal trade, finally, it seems not far-fetched to conclude that Crete owned much of its sudden richness from *c.* 2000 BC as exemplified by the first palaces to its involvement in the tin-trade.<sup>7</sup>

A question which remains to be answered is whether the earliest group of seals already shows affinity to Luwian hieroglyphic. In this connection it is interesting to note that the “Tragebalken” with four round pots hanging on it is related to Luwian hieroglyphic \*314 *ká*

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<sup>3</sup> Herscher 1978: 810; cf. de Jesus 1976: 226 (“Buchholz places the earliest tin-bronzes at EC I which would be no later than 2300 B.C.”).

<sup>4</sup> Schaeffer-Forrer 1978.

<sup>5</sup> Penhallurick 1986: 29, Map 5, and 26, Map 4.

<sup>6</sup> Penhallurick 1986: 63, Map 12.

<sup>7</sup> Note in this connection that an Early Minoan III/Middle Minoan I bronze workshop is attested for the Cretan site of Chrysokamino, see by Betancourt 1998.

and \*315 *kár*, of which the value may well derive from the word *karkaris* “Tragelast” as preserved by a Hesykhian gloss (see Fig. 31, 1-3).<sup>8</sup> Furthermore, the seal bought at Candia with the three pots on side b, apart from the “trowel”-“arrow”-formula on side a, bears testimony of an ox-head with four strokes on top on side c, which cannot be dissociated from the Luwian hieroglyphic ox-head with four strokes on the cheek (\*107) for the expression of the value *MUWA*, *mu*. As we have seen in section I.1.1 above, the latter sign in actual fact is a ligature of \*105 *UWA* with \*391 *mi*, *má*, *m* (i.e. *m+UWA*), which is only conceivable against the backdrop of the for Luwian regular loss of the voiced velar \*[g<sup>w</sup>] in connection with the PIE root \*g<sup>w</sup>ow- “ox”. To all probability, therefore, we are confronted here with the personal name *Muwas* of a functionary in the metallurgical industry as represented by the three pots, specified as *pi-ni bn* “representative” (see Fig. 30, 5). Next, the man brandishing a spear on side a of another seal bought at Candia strikingly recalls the depiction of Hittite dignitaries as, for example, in the Luwian hieroglyphic rock relief at Haniyeri (see Fig. 31, 2a). Finally, the horned animal associated with an antler or the animal with shaken-off antler may well be linked up with the Luwian hieroglyphic deer- or antler-sign \*102-3 *KURUNT*, *kar*, *RUWANT*, *rú* (see Fig. 31, 2c and Fig. 30, 1c). As argued by Best, this sign likely functions as an emblem of the town *Malia*, one of the names of which, Linear B *Rukito* “Lyktos”, starts with the value *ru*.<sup>9</sup>

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<sup>8</sup> Bossert 1932: 24.

<sup>9</sup> Best 1996-7 [= Best 2011]: 116; 122; ; Woudhuizen 2002a: 126-127. Given the Cretan predilection for horns—especially those of oxen, which decorate the Minoan palaces and sanctuaries—the preference of E30 or CHIC092 *ru* or E99 or CHIC028 *rú* to that for E112 or CHIC070 *lū* probably results from its religious connotations. The same reasoning no doubt applies to the preference of E30 or CHIC092 *ru* in the geographic name *Tarunu* “Atlunu”.



(1) seal from Malia (QMu p. 162, Fig. 232).

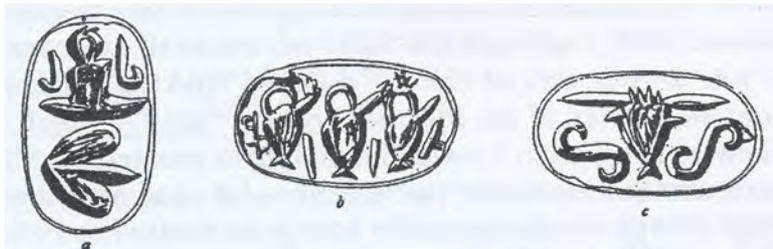
(2) seal from central Crete (Evans 1909: 151, P.13).



(3) seal from Elunda (Evans 1909: 149, P.4).



(4) seal from Malia (Evans 1909: 150, P.4\*\*).

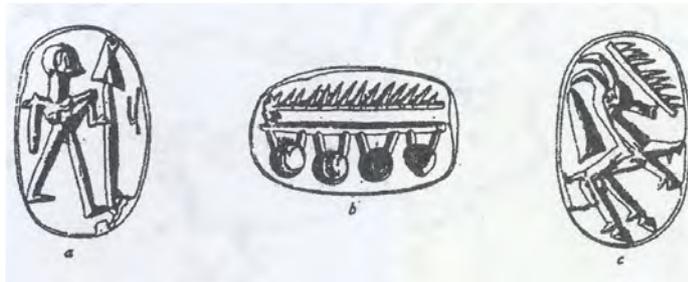


(5) seal bought at Candia (Evans 1909: 150, P.5 = CHIC # 213).

Fig. 30. Cretan hieroglyphic seals with ships, ingots, and pots.



(1) seal from Praisos (Evans 1909: 131, Fig. 69).



(2) seal bought at Candia (Evans 1909: 132, Fig. 70).



(3) seal from Crete (Evans 1909: 132, Fig. 71).



(4) seal from Crete (Evans 1909: 132, Fig. 72).

Fig. 31. Cretan hieroglyphic seals with pots, frequently shown being carried by a "Tragebalken".

### I.3 NOTE ON THE ABSOLUTE CHRONOLOGY OF THE MINOAN ERUPTION OF THE SANTORINI VOLCANO

The dating of the Minoan eruption of the Santorini volcano already for some decades happens to be one of the most hotly debated issues in Aegean or, more in general, Mediterranean, protohistory. Together with the problem of the dating of the final destruction of the palace of Knossos, this discussion prevents protohistorians of the Mediterranean region from fruitfully reconstructing the protohistory of Minoan Crete even in its bare outlines. As a consequence, the question of the dating of the Minoan eruption of the Santorini volcano, just like that of the final destruction of the palace of Knossos, needs to be tackled in a for all participants in the discussion acceptable way before we can address protohistorians of the Mediterranean region to carry on with their job, i.e. reconstructing the history of the region.

In this note, then, an attempt will be made to settle the issue of the dating of the Minoan eruption of the Santorini volcano, though I am not so gullible a person as to believe that I will settle it in a manner acceptable to all participants presently involved in this discussion.

In table VI below I present my consummation of relevant data presented by Peter Warren and Vronwy Hankey in their monograph of 1989, which is still the work of reference for scholars working in the traditional way by relating archaeological data to the Egyptian kinglist. The dating of the Egyptian pharaoh's applied here follows the system most accepted by scholars working in this field, the one worked out by Kenneth Kitchen in 1996. Some of the deviations from Warren & Hankey's work on Aegean Bronze Age chronology are the result of the critical review of the relevant data by Felix Höflmayer in 2012. Thus I leave out the Kerma fragment, which according to Warren & Hankey (1989: 138) provides a synchronism of Late Minoan IA with Kamose (1543-1540 BC) as a *terminus ante quem*, on the basis of its rejection as such by Höflmayer 2012: 159-160. Furthermore, I add the tomb of Senmut (TT 71), in the wall paintings of which Late Minoan IA type of metal vessels are depicted in the opinion of Arthur Evans (1935: 226) and John Pendlebury (1939: 222) as referred to by Höflmayer 2012: 140. The opinion of the two British scholars is underlined by the fact that one of the metal vases, the

pithoid one, as depicted in the tomb of Senmut is closely paralleled by a marble one inscribed with the name of queen Hatshepsut, see Hall 1928: 199-200, Figs. 260-261. Finally, I follow Alexander MacGillivray (2009: 168) in his determination of a bovine-head vase as depicted in the tomb of Menkheperreseneb as representative of Late Minoan II (see Table VI).

### Middle Minoan III

1. el-Lisht vase	MM III(A?)	end dyn. XIII, begin Hyksos	1670-1640 BC
2. Khyan lid	MM III(A?)	Khyan (Hyksos)	1648-1630 BC

### Late Minoan I-II

3. tomb of Senmut	LM IA	after year 7 of Hatshepsut	after 1472 BC
4. Kom Rabia sherd	LM IB	during reign of Tuthmosis III	1479-1425 BC
5. Abydos sherds	LM IB	during reign of Tuthmosis III	1479-1425 BC
6. Tell Ta'anek sherds	LM IB	year 23 of Tuthmosis III	1456 BC
7. tomb of Useramon	LM IB	before year 28 of Tuthmosis III	before 1451 BC
8. tomb of Maket	LH IIB	before end of reign of Tuthm. III	before 1425 BC
9. tomb of Rekhmire	LM IB/LM II	end Tuthm. III/begin Amenh. II	1425-1420 BC
10. t. Menkheperreseneb	LM II	end of reign of Amenhotep II	1410-1401 BC

### Late Minoan IIIA1-2

11. Sellopoulo tomb 4	LM IIIA1	reign of Amenhotep III	1390-1352 BC
12. Acre tomb B3	LM IIIA1-2	end of reign of Amenhotep III	1352 BC

### Tell el-Amarna

13. sherds	LH IIIA2-B	Akhenaten/begin Tutankhamun	1340-1333 BC
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Table VI. Overview of synchronisms between archaeological periods and the Egyptian kinglist from the end of Middle Minoan to the time of El Amarna.

According to the scholars of the traditional approach of relating the relevant archaeological data to the Egyptian kinglist the Minoan eruption of the Santorini volcano occurred during an advanced stage of Late Minoan IA but before its final phase, which induces them to assign a date to this catastrophic event during the latter half of the

16th century BC, say *c.* 1530 BC. As far as calibrated radiocarbon dates are concerned, however, which are followed by the scholars of what is called the scientific approach, the Minoan eruption of the Santorini volcano happened much earlier, namely in the second half of the 17th century BC. Various suggestions range from 1650/40 BC to 1628 BC or  $1613 \pm 13$  BC. In the latter instance the sample for the dating is taken from a branch of an olive tree literally buried in the pumice of the Minoan eruption of the Santorini volcano and considered by the authors responsible for the publication of this find, Walter Friedrich and Jan Heinemeier (2009), as the most scientific date of the event in question presently available.

The discussion in the proceedings of the Sandbjerg workshop of 2007, which were published by David Warburton in 2009 and which includes the contributions by Friedrich & Heinemeier and MacGillivray as referred to in the above, shows that the opinions of the scholars of the scientific approach do not match with those of the traditional approach. This conclusion can further be underlined by the discussion on the topic recently published under the title “Bronze Age catastrophe and modern controversy: dating the Santorini eruption, Debate” in *Antiquity* 88, number 339 (March 2014) 267-295, to which my attention was kindly drawn by my friend and colleague Maarten D. de Weerd. Here Manfred Bietak and Alexander MacGillivray represent the group of scholars of the traditional approach and take a bold stand against an overwhelming majority of colleagues adhering to the scientific approach—however problematic it may be perceived.

It is largely to the merit of Felix Höflmayer, however, that we now can be aware of the fact that the better the quality of the sample taken for calibrated radiocarbon analysis is the closer the resulting dates match with the ones of the traditional approach. Nevertheless, up to the present moment the observation by Höflmayer and Bietak does apply that the calibrated radiocarbon dates for the period of El Amarna and the reign of Amenhotep III after the catastrophic event of the Minoan eruption of the Santorini volcano are in accordance with the corresponding dates from the traditional approach whereas those of the catastrophic event itself persistently show a gap of a century or more with the corresponding traditional ones (Höflmayer 2012: 234-235; 11). *This observation should not only bother scholars of the traditional approach, but also their colleagues of the scientific approach.* It gives us some reason for hope, therefore, that in a

contribution by representatives of both schools a growing awareness of the problem at hand can be found, as Hendrik Bruins, Johannes van der Plicht, and Alexander MacGillivray in their paper of 2009 plead in favor of a dual system, dates from the traditional approach on the one hand and their counterparts from the scientific approach on the other hand, between which a “calibration curve” should be established to resolve the discrepancy.

The model currently in use by the representatives of the traditional approach, as referred to in the above, is exemplified below in our Fig. 32 as model A. In all fairness, it must be admitted that the dating of the Volcanic Destruction Layer (= VDL) to *c.* 1500 BC is taken from MacGillivray 2009: 154, Table 1 who in this contribution adheres to the by now outmoded high chronology of the Egyptian kinglist according to which the reign of Tuthmosis III starts at 1504 BC instead of 1479 BC. So in the opinion of MacGillivray the Minoan eruption of the Santorini volcano took place during the reign of Tuthmosis III (1479-1425 BC) whereas Warren situates this event in the reign of the first ruler of the 18th dynasty, Ahmose (1540-1515 BC). Whatever the extent of this distinction may be, the salient point of our Table VI appears to be that the period of the reign of Tuthmosis III is characterized by the transition (if in reality it is one) from Late Minoan IA to Late Minoan IB as well as the transition from Late Minoan IB [ $\approx$  Late Helladic IIB] to Late Minoan II. According to what we here refer to as model A, then, the Minoan civilization, after the catastrophic event of the Santorini eruption during mature Late Minoan IA which shattered it fundamentally, like a true Phoenix rose from its ashes and reached its pinnacle during Late Minoan IB. During this high point in their civilization, so the reasoning within model A goes on, the Minoans were suddenly taken by surprise and conquered by Mycenaeans from the Greek mainland which event is reflected in archaeological terms in the transition from Late Minoan IB to Late Minoan II. I find this scenario hard to believe.

At this point it becomes relevant, to my eyes at least, that the scientific approach is reduced during the last three or four decades by both parties in the discussion to calibrated radiocarbon dating. In the early 1970s the scientific approach focused on the by now outmoded method of analysis of the refractive index of volcanic glass particles, according to which these particles could be positively assigned to the Minoan eruption of the Santorini volcano—each eruption by a vol-

cano or each eruption by the same volcano namely, according to this particular scientific method, being characterized by a distinct refractive index. Working on the basis of deep-sea cores, the American geologists D. Ninkovich and B.C. Heezen were able to determine with the help of the refractive index the size and the distribution pattern of the tephra-cloud caused by the Minoan eruption of the Santorini volcano. It appeared to them that the direction of the cloud was southeastwards. Subsequently, the American geologists Charles and Dorothy Vitaliano (1974), realizing that particularly eastern Crete had suffered from the ash-fallout, took samples from the soil of the Cretan coastal area the length of a strip running from Amnisos in the mid north to Kato Zakro in the east. Next, they tested these samples for volcanic glass particles having the same refractive index as those obtained from the above-mentioned deep-sea cores. Much to their satisfaction this yielded positive results for a substantial number of samples. On the other hand they were somewhat disappointed at the fact that these samples appeared to belong to different layers. For instance, volcanic glass particles had been detected in samples from Late Minoan IA layers at Kato Zakro, but also from Late Minoan IB destruction horizons at Pyrgos near Myrtos, Vathypetro, Malia, Gournia, and, again, Kato Zakro, whereas the sample taken at Knossos belonged to a mixed layer of Late Minoan IA-II material. Now, as the glass particles can only have a bearing on one single eruption of the Santorini volcano, *this seemingly complicated picture leaves in fact nothing to be desired where proof is concerned of the coevality of the layers with Late Minoan IA ("floral style") and Late Minoan IB ("marine style") from one and the same period of large-scale destructions in Crete* (note that the mixing with Late Minoan II material at Knossos is probably due to continuity of habitation at the spot). These results were endorsed by J.V. Luce in his stimulating book "The End of Atlantis" of 1975 and in a contribution to the *American Journal of Archaeology* of the next year (= Luce 1976).

If the foregoing analysis of the volcanic glass particles applies, Late Minoan IB is not a separate period, but a development within Late Minoan IA. Furthermore, it appears to be distinctive of a fashion in high quality pottery, which developed in the palatial centers but did not reach every outlying district. Hence, absence of the so-called "marine style" does not necessarily imply an earlier dating. In this manner, then, we arrive at what in our Fig. 32 is labeled model B for

the Volcanic Destruction Level, which is in fact synchronous with the destruction level already established for the end of Late Minoan IB, *c.* 1440 BC. According to this model the conquest of Minoan Crete by Mycenaeans from the Greek mainland becomes historically feasible as the island was utterly shattered and presumably ripped of its main military defense, the fleet (see Fig. 32).

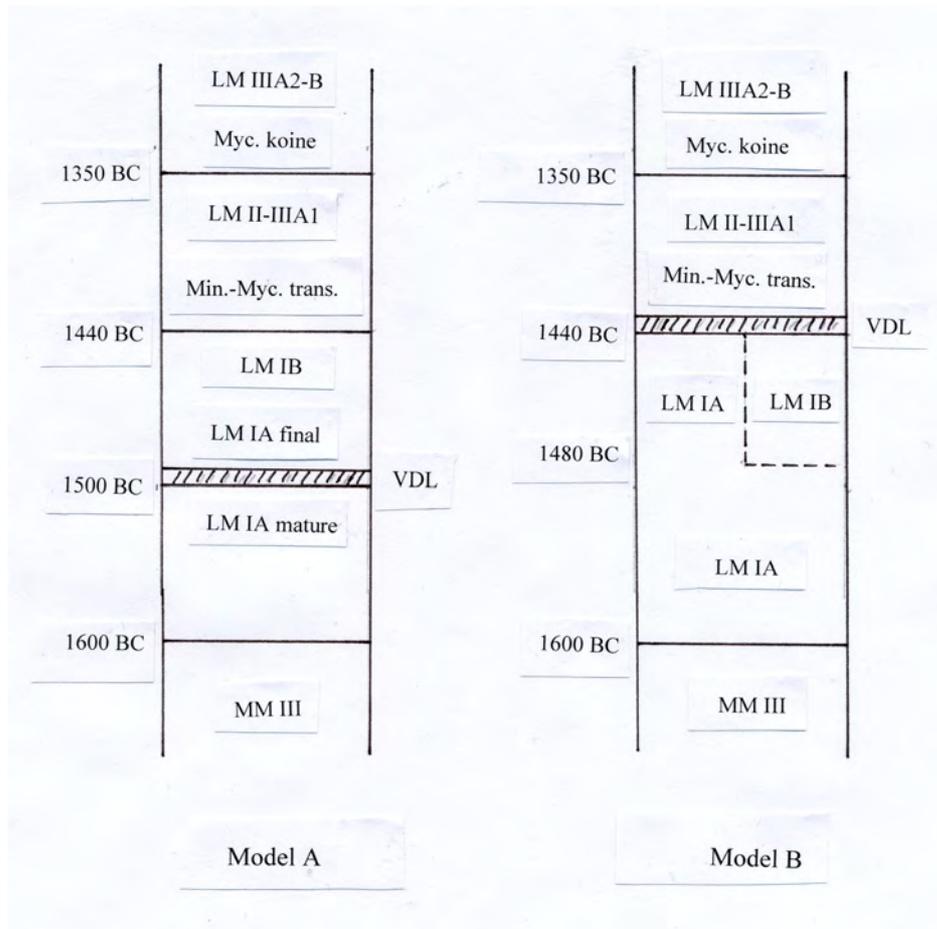


Fig. 32. Current model about the dating of the Minoan eruption of the Santorini volcano (A) and the alternative suggested here (B).

The validity of our model B can be further underlined by two observations. In the first place, the excavator of Tell el-Dab‘a-Avaris, Manfred Bietak, in his Table in Bietak 2003: 24 reports the discovery

of tephra from the Minoan eruption of the Santorini volcano in a layer from an *advanced* stage of the reign of Tuthmosis III (note that this particular information from his Table, which, in answer to my question, was explicitly confirmed in a letter dated January 11th, 2002, is not in conformity with his statement that “this event [= the Minoan eruption of Thera] happened some time in the early 18th dynasty, most probably *before* the reign of Tuthmosis III” [my emphasis], see Bietak 2003: 30). Secondly, as observed by MacGillivray (2009: 166) but explained away by him as an indication of a long term of office by the official in question, impressions of one and the same signet ring are found in Akrotiri, the destruction of which is dated to Late Minoan IA, as well as in Hagia Triada and Sklavokambos, where these are assigned to Late Minoan IB layers (see Fig. 13). There can be little doubt that the impressions are from a seal belonging to one specific official and are therefore likely to be dating from one and the same period of time in the order of a decade or so (cf. Karnava 2010<sup>1</sup> who herself is skeptic about datings based on seal-ring impressions only, but who on p. 89 refers to the opinion of Nanno Marinatos as ventilated at a conference in 2005, which in the words of the author runs as follows: “personal possession of the ring would mean that the Akrotiri and LM IB destructions in Crete were roughly contemporaneous, at least within the life-span of a single ring-bearer”).

Note that the synchronism of LM IB with LM IA as proposed here is not a new idea, but can already be found in the relevant literature, as, for example, in case of Schachermeyr 1964: 40<sup>2</sup> and Abb. 5 between pp. 44-45.

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<sup>1</sup> My thanks are due to Jorrit Kelder for kindly drawing my attention to this paper.

<sup>2</sup> “Die Palastkeramik von S.Min. Ib (*marine style*) (...) wurde wohl nur in Knossos erzeugt und nach anderen Orten bloß exportiert.” “(...) anstelle von S.Min. Ib (...) herrschte außerhalb von Knossos S.Min. Ia weiter.”

#### I.4 A MINOAN GREAT KING

In her book on Minoan kingship of 2010, Nanno Marinatos, in my opinion at least, convincingly proves that Crete was ruled by a king during the New Palace period. Her evidence is iconographic in nature, consisting of scenes on seal rings or sealings of such rings dating from the 16th and 15th century BC. Her method is refreshing in a field where Crete is usually considered in splendid isolation. As opposed to this, Marinatos maintains that “[t]he culture of Crete may be properly deciphered if it is regarded as part of an international milieu.” (Marinatos 2010: 193). With the help of evidence from the Near Eastern *koinē*, then, she shows that Cretan kings are depicted in like manner as their Near Eastern colleagues and like the latter often difficult to distinguish from the storm-god, who according to the international data the king in actual fact impersonates (Marinatos 2010: 167-185).

Marinatos’ statement that the culture of Crete may be deciphered within its proper international context does not only apply to iconographic scenes. As will be shown below on the basis of one example, this adagium also holds good for the Cretan hieroglyphic script as likewise attested for seals and sealings.

Before we turn to the seal-legend selected, it first of all deserves our attention that in the Egyptian capital Avaris, associated with the palace at ‘Ezbet Helmi, the remnants of Minoan wall paintings have been found. According to the excavator, Manfred Bietak, these paintings date to the period of *c.* 1500-1450 BC, which means during the reign of the Egyptian pharaoh Tuthmosis III (1479-1425 BC). In any case, the remains of the Minoan wall paintings precede the evidence for pumice of the for the island of Crete disastrous Santorini eruption from an advanced stage in the reign of this same pharaoh, say *c.* 1450 or 1440 BC (Bietak e.a. 2007: 16, Figs. 4-5; 26-40). In another publication of 2007, Bietak is even more exact about the date of the Minoan frescoes and states that the most likely date for them is *c.* 1475-1450 BC (Bietak 2007: 270, Fig. 2). Now, Minoan paintings are a “Fremdkörper” in Egyptian palace decoration, and parallels are only provided by the decoration of tombs of Egyptian high officials from the reigns of Hatshepsut and Tuthmosis III found at Thebes with scenes of delegations of the Keftiu or Cretans. To explain this isolated

case of parts of an Egyptian palace being decorated with Minoan frescoes it has been put forward by the excavator himself that these may be the result of an inter-dynastic marriage between the Egyptian pharaoh and a Minoan princess (Bietak 1995: 26).

If the Minoan frescoes at the Egyptian capital Avaris are indeed the result of an inter-dynastic marriage, the Minoan princess in question may reasonably be argued to be the daughter not of a Minoan king but of a Minoan *great* king as the Egyptian pharaoh Tuthmosis III is unlikely to have married *below* his standing. Unfortunately, there is no textual evidence of such a marriage, as information of this kind is only provided by the Amarna texts which date from about a century later in time onwards. On the other hand, however, there can be found positive evidence for a Minoan great king in the legend of a Minoan seal inscribed in the local Cretan hieroglyphic script.

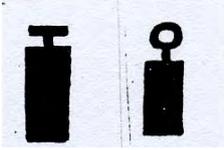
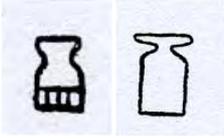
The seal in question is # 297 in the corpus of Jean-Pierre Olivier & Louis Godart (CHIC) of 1996. It is inscribed with 14 individual signs (numbers preceded by E in accordance to Evans 1909: Fig. 102, Table XIII; number preceded by PD is that of the Phaistos disk) and the legend is divided over all four sides of the seal (Fig. 33).



Fig. 33. Seal # 297 (from CHIC, p. 278).

As to our understanding of the contents of the legend, it deserves our attention that as much as 11 of the total of 14 individual signs have a counterpart in the Luwian hieroglyphic script of Anatolia (numbering of the signs according to Laroche 1960). Note that it is irrelevant in this context that a sign may occur “en face” in Cretan hieroglyphic and “en profile” in Luwian hieroglyphic, as is the case with the “antelope head” (E63 = LH \*104), or may occur in simplified

rendering, as in case with the Cretan hieroglyphic “eye”-sign, which corresponds to three pairs of eyes on top of each other in Luwian hieroglyphic (Fig. 34). On the other hand, the origin of 2 signs is rather to be traced in the Egyptian hieroglyphic script (Fig. 35; numbering according to Gardiner 1994), whereas of 1 sign only the offshoot can be traced in the later Cypro-Minoan script (Fig. 36; numbering according to Hiller 1985c). In connection with the Egyptian category of evidence it is noteworthy that in one instance, that of the “trowel” E18, the closest comparable evidence is provided by a local Byblian writing variant.

	CH		LH	value
E24		327		<i>SASA, sa<sub>5</sub></i>
E63		104		<i>SÁSA, sà</i>
—		190		<i>sol suus</i>
E19		488		<i>ta<sub>5</sub></i>
E11		82		<i>ta<sub>6</sub></i>
E9		66		<i>PIA, pi</i>

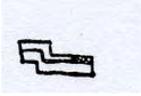
E14		383, 1		(det. of PN)
PD2		19		AMU, á
—		450		à
E115		212		ĤAPA, ná
E5		191		TIWATA, ti <sub>6</sub>

Fig. 34. Cretan hieroglyphic (CH) signs corresponding to a Luwian hieroglyphic (LH) counterpart.

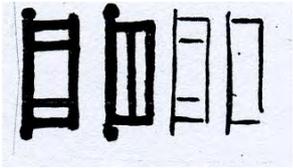
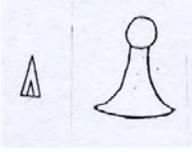
	CH		EgH	value (CH)
E44		O31		ya
E18		X8		pí

Fig. 35. Cretan hieroglyphic (CH) signs corresponding to an Egyptian hieroglyphic (EgH) counterpart.

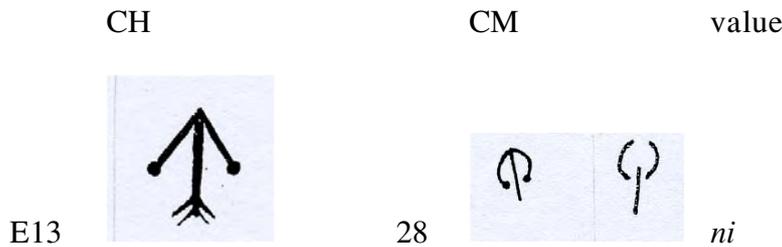


Fig. 36. Cretan hieroglyphic (CH) sign with a counterpart in the later Cypro-Minoan (CM) script.

The most conspicuous element of side 1 is the large “winged sun disc”, which according to Marinatos (2010: 139) is absent in Cretan iconography. The presence of this sign definitely proves that we are dealing with a seal of (as expressed by the preceding combination *SASA sà*, with the Semitic genitive particle *ša* “of” also attested for cuneiform Luwian, see Laroche 1959: 155 [= KUB XXXV 54 Vs. II 40]) a great king, whose form of address is *sol suus* “his majesty”. Then on side 2 follows the name of the great king in question, *ta<sub>5</sub>-ta<sub>6</sub>* “Tatas”. This is a Luwian name of Indo-European origin (< Proto-Indo-European *\*t-at-* “father”, see Mallory & Adams 2007: 515), attested for Kululu 1 §§ 45 and 62, Meharde § 2, Sheizar § 1, and most recently Aleppo 6 § 1 (Woudhuizen 2015a: 298). In the three last mentioned instances it has a bearing on a king who specifies himself to be of Philistine origin, which means a group among the Sea Peoples (Egyptian “Peleset”) who are to be identified with the Pelasgians < *\*Pelastoi* from Crete (Woudhuizen 2015c: 295-296). Next, according to the information on sides 3 and 4 the seal was actually used by a seal bearer of great king Tatas named Aas (for the Anatolian personal name *Aa-*, see Laroche 1966: 23, no. 1), who specifies himself as *pí-ni ná pí-ti<sub>6</sub>* “representative of the king” (cf. Ugaritic *bn* “son; representative”, and Egyptian *bity* “king of lower Egypt” and the preposition *n* “of”). Note that his actions in the name of the great king are specified by the verbal form *piya* < Luwian hieroglyphic *pia-* “to give” as deliveries.

In sum, then, the legend of seal # 297 reads as follows in transliteration and translation:

1. *SASA sà sol suus*
2. *ta<sub>5</sub>-ta<sub>6</sub> / pi-ya*
3. *á-à*
4. *pí-ni / ná pí-ti<sub>6</sub>*

“seal of his majesty Tatas: Aas (has) give(n), representative of the king”

It may safely be concluded that Minoan Crete, at the pinnacle of its power in *c.* 1500-1450 BC, i.e. just anterior to the for its civilization disastrous eruption of the Santorini volcano of *c.* 1450 or 1440 BC, was ruled by a king Tatas who according to the evidence of his seal considered himself a great king. This preeminent status may have been acknowledged by the Egyptian pharaoh Tuthmosis III, who likely married a daughter of this great king (or one of his predecessors or successors of which the seal does not happen to be preserved). Whatever one may be apt to think of this scenario, one thing is clear: the Cretan hieroglyphic seal # 297 presents us with the earliest documentary evidence for a great king in Europe—just about two centuries before the king of Mycenae in Greece became a member of the exalted “club” of in the main Near Eastern great kings.

Apart from Tatas, there may have been more Cretan kings with a claim to the title great king. It so happens, namely, that the titular expression “trowel”-“eye” *pí-ti<sub>6</sub> bity* “king” on side 2 of seal # 309 is associated with on the one hand two small sun-discs (at either side of CHIC005) and on the other hand two running spirals representing the rising and setting sun (at either side of CHIC044). If the owner of the seal indeed considered himself a great king, it is of interest to note that his realm according to the information on side 3 was *ta<sub>5</sub>-ru-nú* or *Atlunu* “Atlantis”, the most important geographical entity on Crete. In view of the abbreviation *MA<sub>1</sub>* on side 2, the Mesara also belonged to this realm as an adjunct.

It further deserves our attention in this connection that in variant writing “trowel”-“adze” *pí-tī* the title *bity* “king” is associated with two running spirals again on seal # 255 and with a radiant sun on seal # 257. In both these instances the realm of the owner of the seal is specified as *Atlunu* “Atlantis”, whereas in case of # 257 the name of the owner happens to be *ma<sub>1</sub>-na<sub>6</sub>* “Minos”. To all probability, therefore, this mythical king of Minoan Crete who ruled just anterior to the for his realm disastrous eruption of the Santorini volcano of *c.* 1450 or 1440 BC is not only a historical reality, but also to be included in our overview of Minoan great kings (for the seals mentions, see Fig. 29).

Finally, it deserves our attention in this context that the LM I Temple Tomb of Knossos provides us with a funerary monument befitting a Minoan great king (Schachermeyr 1964: 170-171, Abb. 99).

## I.5 THE EIGHT-SIDED SEALSTONE FROM EASTERN CRETE\*

One of the most interesting Cretan hieroglyphic seals of the group characterized by the combination “trowel”-“arrow” (E18-13 or CHIC 044-049), identified by Piero Meriggi as the “child-formula” (see Fig. 8 above)<sup>1</sup> or, in our terminology, PF 1, is an eight-sided sealstone acquired by Arthur Evans somewhere in the eastern part of Crete, presumably Neapolis (# 314).<sup>2</sup> This seal is not only the one most closely comparable in form to the typical Near Eastern type of seal in form of a cylinder—which in Anatolia, where stamp seals remained dominant, was likewise imperfectly reproduced by eight sides in the round<sup>3</sup>—, but also contains a text of considerable length in which a large number of the standard formulas current on the known specimens of the group of seals in question have been used in combination (see Fig. 37).

Now, together with the punctuation mark in the form of a cross, these recurrent formulas have served Ernst Grumach as basic implements for his profound structural analysis of the text, resulting in the determination of its beginning, end, and writing direction of the individual lines.<sup>4</sup> According to this analysis the text starts with the cross on the left side followed by the “spear” or “lance” (E14 or CHIC050) and ends with the cross preceded by the “adze” (E21 or CHIC046) on the adjacent side, whereas the remaining two punctuation marks on the right in what from now on can be called lines 3 and 6 are used in a slightly different manner to indicate distinct components or clusters of sign groups within the text. This view is emphasized by the fact that the sign groups in lines 6-8 distinguished in this manner as a separate entity are, with the exception of some slight modifications, exactly paralleled on a three-sided prism seal from central Crete (# 257). In addition, both functions of the punctuation mark are also attested on for example a four-sided seal discussed by Grumach at another place (# 295).<sup>5</sup>

Turning next to the formulas, it appears that the writing direction of the last line can be sustained by its correspondence in

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\* This is a reworked and updated version of Best & Woudhuizen 1989: 120-128.

<sup>1</sup> Meriggi 1973: 114-133, esp. note 15.

<sup>2</sup> For the earliest treatments of this seal, see Myres 1949: 326-327 and Kenna 1960: 111, no. 165.

<sup>3</sup> Meyer 1914: 145-151; Taf. IV (= Mora 1987: Ib 1.11); Alp 1968: 188-189, Nr. 94.

<sup>4</sup> Grumach 1963b: 84-97.

<sup>5</sup> Grumach 1963a: 8, Taf. 1. For the seals mentioned, see Fig. 29.

general outline to the “trowel”-“adze”-formula (CHIC044-046 = our PF 3) on the three-sided seal # 257 just mentioned. Secondly, the “trowel”-“arrow”-formula (CHIC044-049 = our PF 1), which occurs no less than two times on the present seal, indicates that line 2 runs from right to left and line 5 in the opposite direction, from left to right. As a consequence, the combination “animal head”-“axe” (E73? and E12 or CHIC018? and CHIC043) following this formula in line 5 points to a writing direction from right to left for the preceding line in which the same combination apparently recurs, even though the animal head is provided here with the protruding tongue typical of E73 or CHIC018.<sup>6</sup> Furthermore, line 7 can be shown to be written in retrograde direction on account of the fact that the sequence of its signs turns out to be “gate”-“leg”-“flower” (CHIC038-010-031 = our PF 5) when this particular formula appears on seals with a uniform writing direction on all sides according to their presentation by Grumach.<sup>7</sup> Finally, it is worth mentioning that only line 6 of all three lines with a punctuation mark at the start is inscribed with another standard formula, “throne”-“horn”-“flower” (CHIC036-092-031 = our PF 6), whereas lines 1 and 3 are characterized by “nicht analysierbaren Gruppen”.<sup>8</sup>

In sum, this leads us to a quite regular pattern, according to which one line in left-to-right direction of writing (lines 1 and 5) is followed by three lines in right-to-left direction of writing (lines 2, 3, 4 and 6, 7, 8).

In regard to the meaning of the combinations discussed above, we have already mentioned in the previous pages that the “trowel”-“arrow”-formula is identified by Meriggi as the word for “child”, a supposition which corroborates with its likeness in form to the Cyprominoan combination *pi-ni* “son (of)” (cf. Semitic *bn*) and its use on hieroglyphic clay documents in like manner as Linear B *ko-wo* “boy” or *ko-wa* “girl”.<sup>9</sup> This identification perfectly fits the first occurrence of the formula in line 2 of the present seal—which is enlarged by a motif for decorative purposes in order to fill up empty space as witnessed on various other seals—, because it is preceded and

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<sup>6</sup> Note in this connection that the omission of the protruding tongue in line 5 may well be due to lack of space, because this is the only line with a total number of 4 instead of 3 signs.

<sup>7</sup> Grumach 1963a: 8, Taf. 2 (= # 293 [see our Fig. 29]); Grumach 1967: 14, Taf. 7 (= # 299).

<sup>8</sup> Grumach 1963b: 97.

<sup>9</sup> Meriggi 1973: 132, note 15; 116.

followed here by combinations unparalleled elsewhere and hence most naturally to be explained as names of individual persons.<sup>10</sup>

Far more important, however, for our understanding of the “trowel”-“arrow”-seals in general and the present one in particular is his comparison of the very frequent combination of this formula (= our PF 1) with “trowel”-“eye” (CHIC044-005 = our PF 2) to the Luwian hieroglyphic honorific title “prince”, which is expressed by a ligature of LH \*45 *infans<sup>m</sup>* “son” with LH \*17 *HANTAWAT* “king”.<sup>11</sup> This comparison can be substantiated by two observations: (1) the “trowel”-“eye”-formula is associated with the honorific title for king of Lower and Upper Egypt *bity nswt* “bee-plant” (E86 and E54) on clay sealing # 018γ (see Fig. 38a) which even seems to be replaced by “bee” alone on a three-sided seal from the Mirabello province # 272 (see Fig. 29) as compared to # 262 on which otherwise the same formulas recur (see Fig. 39); (2) the combination of “trowel”-“arrow” with “trowel”-“eye”, which is mostly found on adjacent sides of seals, tends to be written on one side of the seal, as in case of # 283 and # 297 (see Fig. 29), and even to develop into some kind of ligature in which one of the two “trowel” signs is omitted and the other two signs are placed on either side of the remaining one, as attested, for example, for # 298 (see Fig. 29). Reasoning from the latter observation, the sequence “eye”-“trowel”-“arrow” which is enclosed by the antithetically arranged combination “animal head (with protruding tongue)”-“axe” in lines 4-5 is more likely to be identified as an honorific title “prince” than to form part of an extended genealogy. Some confirmation of this view can be provided by the fact that “axe” from the antithetically arranged combination recurs on clay sealing # 039a (see Fig. 38b), together with the hieroglyphic ancestor sign of Linear A *lū* (L22), also in association with the Egyptian honorific title *bity nswt* “bee-plant” (E86 and E54) and is furthermore identical to PD15 *TUZI* on the discus of Phaistos, translated as “great intendant”, so that it seems not unreasonable to assume that it forms part of another titular expression connected with that of “prince”.

So far we have with the help of the analyses of Grumach and Meriggi been able to recognize in the first three lines the pattern “A, son (of) B” and in lines 4-5 an honorific title “prince” which is enclosed by another titular expression repeated on either side of it in a manner strikingly reminiscent of the antithetically arrangement of

<sup>10</sup> Grumach 1963a: 8; Erlenmeyers 1965: no. 2, Abb. 2b (= # 300, a [see our Fig. 29]); etc.

<sup>11</sup> Meriggi 1973: 103-104; cf. Laroche 1960: LH \*46.

titles well known from Luwian hieroglyphic seals or sealings. Having arrived at this point it is not possible to continue with the interpretation of the text in a fruitful way without taking the values of the signs into consideration. As a matter of fact, therefore, it is important to realize that, apart from the reading of “trowel”-“arrow” as *pí-ni* “son (of)” on the basis the given Cypro-Minoan parallel and of the “axe” as *TUZI* on the basis of its formal resemblance to PD15 (which can be further backed up by the relationship of this sign with LH \*283-284 expressing the same value), the value of the remaining 12 of the total of 15 individual signs can be recovered from oblivion by their correspondence in form to an equivalent in on the one hand Luwian hieroglyphic and on the other hand Cretan Linear A. Thus (1) the “animal head (with protruding tongue)” E73 corresponds to a man’s head with protruding tongue in Luwian hieroglyphic, LH \*13 *PÁRA*, (2) the “arm” which usually appears with a knife in its hand as in case of E16 corresponds to the Luwian hieroglyphic hand with a sharp instrument LH \*29 *tá*, (3) the “leg” E11 corresponds to the Luwian hieroglyphic leg-sign LH \*82 *ta*<sub>6</sub>, (4) the non-predatory bird E82 finds its closest match in the Luwian hieroglyphic dove-sign LH \*128 *ti*<sub>5</sub>, (5) the “flower” E92 can positively be identified with the Luwian hieroglyphic branch of the pomegranate LH \*153 *nú*, (6) the “eye” E5 correlates to the symbol of the sun-god in Luwian hieroglyphic formed by three pairs of eyes in columnar arrangement LH 191 *ti*<sub>6</sub>, (7) the “spear” or “lance” E14 recalls the Luwian hieroglyphic stroke in its function as determinative of personal names LH \*383, 1, (8) and the “throne” E19, which actually depicts a gate, cannot be dissociated from its Luwian hieroglyphic equivalent LH \*488 *ta*<sub>5</sub> (see Fig. 25 above). As opposed to this category, correspondences of signs with Linear A equivalents entail “gate” E44, which actually depicts a door, and corresponds to L32 *ya*, “horn” E30, which is identical to L55 *rū*, “breasts” E4, which occurs here upside down and, instead of being related to the Luwian hieroglyphic sign for “land”, LH \*228, actually constitutes a variant of the Linear A wine-ideogram L82 *WAINU*, *wa*<sub>1</sub> (see Fig. 41), and “adze” E21, which has an offshoot in L88 *tī* (see Fig. 27 above).

All in all, then, this results in the following transliteration and translation of the text on the eight-sided sealstone (see Fig. 37):

1. *tá-PÁRA* 2. *pí-ni* 3. *nú-wa*<sub>1</sub> 4. *PÁRA-TUZI* <*pí*>-*ti*<sub>6</sub>- 5. *pí-ni PÁRA-TUZI* 6. *ta*<sub>5</sub>-*ru-nú* 7. *ya-ta*<sub>6</sub>-*nú* 8. *pí-ti*<sub>5</sub>-*tī*
- “Daparas, son (of) Nuwas, viceroy, prince, viceroy (of) Atlantis, has given on behalf of the king”

## COMMENTS:

(1) *tá-PÁRA*

Endingless N(m/f) sg. of the MN *Tapara-*, which in form of *Dapara-* is strikingly paralleled for a bilingual Lycian text, TL 6, and of which the root is a derivative of the Luwian hieroglyphic verb *tapar-* “to rule”, likewise used as an onomastic element in the Luwian MN *Taparziti-*.<sup>12</sup> This MN is also attested in an Egyptian hieroglyphic exercise in writing Keftiu names as the final element of the composite onomastic formula *ikššw bn n dšbr* “Ikausa, son of Daparas” (see Fig. 2b).

(2) *nú-wa<sub>1</sub>*

Endingless N(m/f) sg. of the MN *Nuwa-*, which in reduplicated variant *Nuwanuwa-* is traceable in Anatolian onomastics.<sup>13</sup> As an onomastic element *-nuwa-* can also be found in the Karkamisian royal name *Sahurunuwa-*.<sup>14</sup> Against the backdrop of the fact that the regular Luwian hieroglyphic reflex of PIE *\*newo-* “new” is *nawa-*, it may reasonably be assumed that *nuwa-* is due to influences of an Indo-European substrate which may also be held responsible for the introduction of toponyms in *-nuwa-*, like *Tuwanuwa-* “Tyana” (lit. “new foundation”).<sup>15</sup>

(3) *PÁRA-TUZI*

Composite honorific title, of which the first element *para-* from an Indo-European point of view corresponds to Latin and Greek “for, in place of”, as in Latin *proconsul*, the deputy of a *consul*. The second element confronts us with a reflex of Hittite *tuzzi-* “army”<sup>16</sup> and as such determines the nature of the title as being military. In the case of PD15 on the discus of Phaistos, which is translated as “great intendant”, we may well actually be dealing with *lu TUZI* as on sealing # 039a (see Fig. 38b), representing *LÚ TUZI* “army commander”, but equivalents of the Akkadian determinatives for “man”, “town”, “land”, etc., are omitted in this particular text.

The fact that we are dealing here with an honorific title of secondary rank is underlined by its association with *pinipiti* “prince”

<sup>12</sup> Houwink ten Cate 1961: 158-159.

<sup>13</sup> Laroche 1966: 132, no. 900.

<sup>14</sup> Laroche 1966: 153, no. 1076.

<sup>15</sup> Woudhuizen 2016: 62-64.

<sup>16</sup> Friedrich 1991, s.v.

or, literally, *bn* “son” of the *bity* “king”—a hybrid formation of a Semitic titular expression with an Egyptian one (see below sub (6)). That such a hybrid formation is not *a priori* implausible may be further illustrated by the case of seal # 277, where the Semito-Egyptian hybrid *pini/piti* “prince” is associated with a Luwo-Semitic equivalent *HASU/saru*, literally Luwian *hasu-* “descendant” (LH \*300) of the Semitic *šarru* “king” (see Fig. 40).

(4) *ta<sub>5</sub>-ru-nú*

This recurrent formula, our PF 6, to all probability represents a geographic name. If we realize that on the one hand according to Luwian hieroglyphic writing practices CV may represent VC, as in, for example, *Titarma* “Attarima”, and that on the other hand according to Cretan Bronze Age writing practices more in general [r] may represent [l], it may reasonably be assumed that we should actually read *Athunu*. In combination with the observations, then, that this geographic name happens to be the one most frequently attested and, given its association with the other profane formulas, can be shown to be distributed over the entire northern coastal zone of Crete with a particular concentration in its northeastern part (see Fig. 12), it may safely be deduced that *Athunu* has a bearing on not only the most prominent but also largest geographical entity and its identification with the mythical *Atlantis* lies at hand.

(5) *ya-ta<sub>6</sub>-nú*

This recurrent formula, our PF 5, may, for its correspondence in form to Ugaritic *ytn* (vocalized *ya-te-nu*), be identified as a verbal form, to be more specific the absolute infinitive of the Semitic verbal root  $\sqrt{ytn}$  “to give”, which can be used, as it is here, for the expression of the 3rd pers. sg. m. of the imperfect.<sup>17</sup>

(6) *pí-ti<sub>5</sub>-tī*

D sg. in *-ti* of the honorific title *piti-* “king”. The meaning of this title is assured by its correspondence to Egyptian *bity* “king of Lower Egypt”, rendered, as we have seen, by the bee-sign = EgH L2 (see Fig. 26). The D sg. ending in *-ti* goes without proper parallel in the Luwian hieroglyphic declension of the noun, but it can be found in that of the pronoun,<sup>18</sup> whereas in the Cyprian dialectal variant of Luwian this ending of pronominal origin can, against the backdrop of

<sup>17</sup> Gordon 1955: 70; Segert 1984: 44; 71.

<sup>18</sup> Woudhuizen 2015a: 41, Table I; 247-249, Table II.

*te-lu sa-ne-me-ti* “delivery to Sanemas” (Enkomi cylinder seal, inv. no. 19.10, lines 25-26),<sup>19</sup> be shown to have radiated to the realm of the noun, as it did in the Cretan dialectal variant of Luwian considering Linear A *te-lū da-ku-se-ne-ti* “delivery to Taku-šenni” (HT 104.1-2). Note that the use of this particular ending defines the language in which the inscription on the eight-sided sealstone is conducted, notwithstanding the Semitisms and the Egyptian loan, as Luwian—be it of a peripheral nature.

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<sup>19</sup>Woudhuizen 1992a: 96; 115; Woudhuizen 2006a: 44-45 or van Binsbergen & Woudhuizen 2011: 224-225.

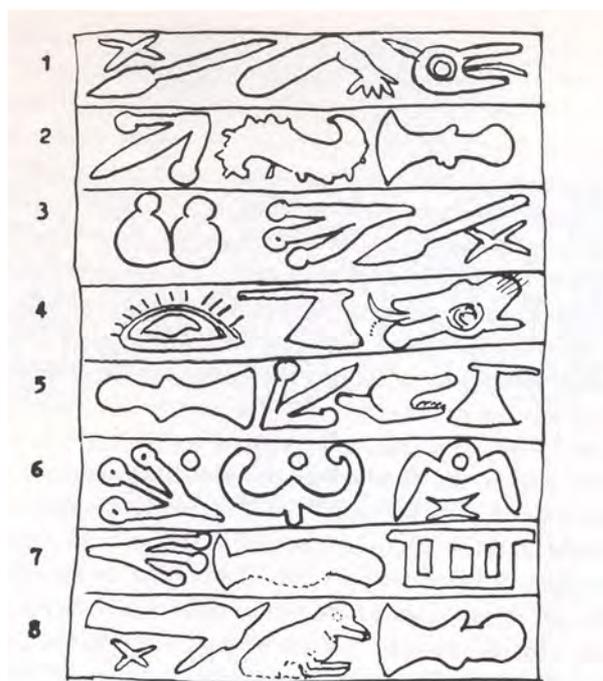
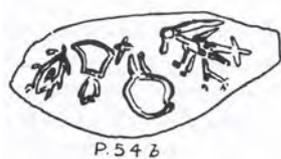


Fig. 37. Eight-sided sealstone from eastern Crete (CHIC # 314)  
(Meriggi 1973: upper left of Tafel IV).



P.54b

(a)



P.86b

(b)

Fig. 38. Seal impressions with “bee-plant”-formula (# 018γ and # 039a) (Evans 1909: 163, P.54b and 167, P.86b).

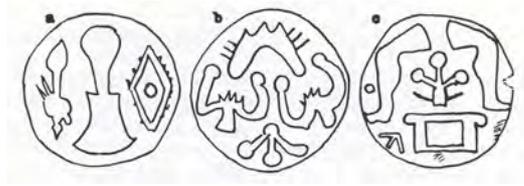


Fig. 39. Seal from Mirabello province (# 262) (Meriggi 1973: upper side of Tafel VI).

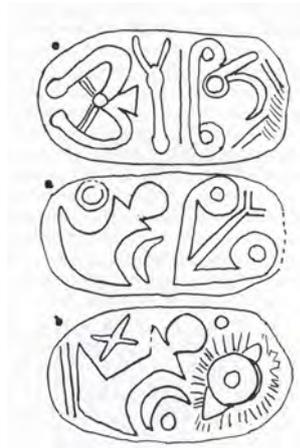


Fig. 40. Seal of unknown provenance (# 277) (Meriggi 1973: upper left of Tafel III).

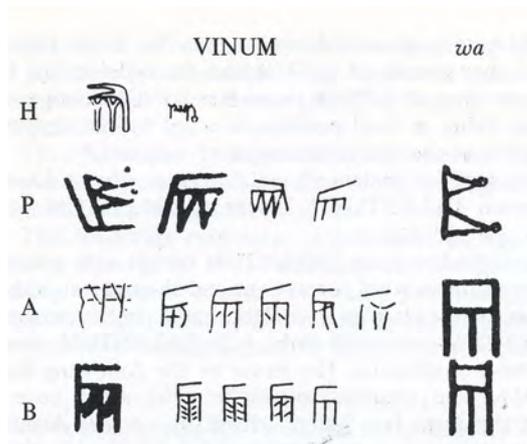


Fig. 41. Various forms of the wine-ideogram in EgH, CH, LA, and LB (from Best 1981b: 14).

## I.6 THE LARGEST CRETAN HIEROGLYPHIC SEAL\*

The seal inscribed with the largest Cretan hieroglyphic legend in so far as glyptic evidence is concerned is the one catalogued by Arthur Evans (1909: 154) as P.26 and by Jean-Pierre Olivier and Louis Godart (1996 [= CHIC]: 276-277) as their # 294. It consists of a four-sided seal of white steatite, reported to originate from an unspecified location in Crete, and confronts us, as we will argue below, with as much as 45 sign-occurrences in sum. It belongs to the inventory of the National Museum at Athens, where it is catalogued as exhibit 8915 (see Fig. 42).

The seal has most recently been discussed by Jan Best (1996-7 [= Best 2011]: 113-115). He attributes it to the northern coastal site of Malia, amongst others because in the palace of the latter site rectangular clay bars have been found (CHIC # 111-118) of similar type as seal # 294. Similar rectangular clay bars have also been attested for the palace of Knossos, situated on the northern coastal side of Crete to the west of Malia, see for example CHIC # 49 and # 65, but only in Malia this particular form was applied to record legends in Linear A as well (Brice 1961: Plate 28a, IV 10; cf. Best 1996-7 or 2011: 113, note 39; Woudhuizen 1992a: 88-89, Fig. 2). My main reason, however, to follow Best in his attribution of the seal to Malia is, as will be argued below, its reference to the cult of Tarkhunt—a deity name featuring in the hieroglyphic records of the palace and Quartier Mu at Malia as much as 11 times (see section II.9 below).

As far as the direction of writing is concerned, I agree with Evans (1909: 154) that the large cross (X) on side 1 marks the beginning of the text, and that hence this side runs from left to right. Similarly, in my opinion he was right in his analysis of side 2 running, in a truly boustrophedon manner, in the opposite direction of writing, from the right to the left. His statement that the next side, our number 3, runs in left-to-right direction of writing no doubt results from a printing error, as he has it started with what he, in my opinion wrongly, identifies as an instance of the cross-mark at its far right side (the assumed cross are merely the crossed legs of the sign in form of a bird). So, in line with the analysis by Best (1996-7 or 2011: 114), side 3 also runs in right-to-left direction of writing. Finally, the last side, our number 4, contrary to the opinion of Evans,

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\* This section appeared as Woudhuizen 2011b.

does not start with the cross-sign (x) at its outer right, but, in conformity with its smaller dimensions as the cross at the start of side 1 and in the middle of side 3, *ends* with this mark, so that, again in a truly boustrophedon manner, the sinistroverse side 3 is followed by the dextroverse side 4. Note that Olivier and Godart (1996: 276-277) deviate from the foregoing analysis of the direction of writing in that they take side 4 as the second in line and have it running from the right to the left instead of the other way round; also in connection with what they consider the last side, corresponding to our side 2, they assume that the texts runs from left to right instead of the other way round (note that the comparison is complicated by the fact that in their drawing Olivier and Godart depict the various sides upside down as compared to the ones by Evans and Best).

As far as the reading of the individual signs is concerned, there are only a few problems, all concentrated on side 3. After the seal sign in second position (E24-25 or CHIC056), there follows a mark which almost covers the wine ideogram in fourth position (E4) in its entirety. Instead of belonging to the wine ideogram *WAINU*, however, as one might be apt to think against the backdrop of its origin from Egyptian M43, we are dealing here, at least in my opinion, with the counterpart of the Luwian hieroglyphic symbol \*400 for the number “1000”. Similarly, the sign on top of the final combination in my opinion should be identified as the grain ideogram *granum*, written horizontally here in order to save space. In any case, it corresponds in form to the first product *granum* as recorded for the hieroglyphic tablet from Phaistos (Evans 1909: P.121; CHIC # 122, \*153; Ventris & Chadwick, 1973: 30-31, Fig. 5; cf. *ibid.*, ideograms p. 34, Fig. 7: L 42) (see Fig. 43). This sign is related to the Luwian hieroglyphic grain ideogram \*179-180 *hordeum*. Next, the sign at the lower side of the final combination in fact consists of a ligature of a sign in form of a horizontally placed rectangular beam with an additional stroke added to its lower right side. The main sign in form of a horizontal rectangular beam corresponds to Luwian hieroglyphic \*397-398 *\*dékmt-, ta?*, the first of which, merely a horizontal stroke, serves as the symbol for the number “10” in like manner as it does in the Cretan Linear scripts. It occurs here in ligature with the so-called “thorn” sign, Luwian hieroglyphic \*383, 2 *+r(ai)*, which in Cretan hieroglyphic is used to express the original pre-rhotacized value *+ti*, as in case of PD46 from the text of the Phaistos disk (see Fig. 25).<sup>1</sup>

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<sup>1</sup> Note that in the legend of the stamp seal from Beycesultan, dated *c.* 2000 BC, the “thorn” LH \*382, 2 already renders the rhotacized value *+r(ai)*.

Finally, it should be realized that the sign in penultimate position in line 4, just preceding the final small cross, is, just like the cross itself, not a sign rendering a syllabic or logographic value, but a klasmato-gram (CHIC302Δ), denoting a measure of dry ( $\pm 100$  liter) or liquid ( $\pm 30$  liter) products (cf. Godart 1990: 102)—in like manner as, according to our reconstruction at least, the number “1000” in line 3 (see Fig. 42).

In line with the foregoing analysis, the text of seal # 294 runs as follows in transliteration in numbers (E = Evans; \* = LH):

1. X E97-E13-E97-E97-E97-E97-E57-E97
2. E24-E65-E27-E27-E114-E27-E27-E114-E27-E27-E30
3. E82-E24-\*400-E4 X E97-E97-\*179/180-\*397/398+PD46
4. E24-E99-E60-E14-E18-E60-E30-E112-E54-E60-E41-\*100-E27-CHIC302Δ x

Furthermore, with the given proviso, we now can distinguish within the legend in its entirety two distinct entities, namely: (A) a main transaction involving 1000 measures of wine and, as underlined by the use of the large cross (X), presumably the same amount of grain, which covers sides 1-3, and (B) a subsidiary transaction involving a much smaller amount of presumably the aforesaid products, which is added on side 4. The key-word of the main transaction is *te-te*, which for clarity's sake is repeated after the large cross in about the middle of line 3 and which confronts us with the 3rd person plural of the past tense in *-<sup>n</sup>te*, corresponding to Luwian *-nta* or Lycian *-<sup>n</sup>te* of the same function (Meriggi 1980: 340, § 199; 349, § 226-228), of the verbal root *te-* corresponding to Lycian *da-* (TL 84, §§ 2 and 6, see Woudhuizen 2016: 177-179) and Lydian *dā-* or *dē-* “to give” (Gusmani 1964, s.v. *dā-* and *dēt-*), so leading us to its phonetic representation as /dente/ and linguistic interpretation as “they have given”. Similarly, the key-element of the subsidiary transaction is formed by the Semitic preposition *le* “to”, encountered in Linear A in the forms *re* and *ri* characterized by //r-interchange (see sections II.3 and 5 [no. 74] below). It deserves our attention in this connection that the use of Semitisms in the context of, as we will see, the Luwian matrix-language is not an undermining factor as to the credibility of the given interpretation, but, against the background of the related Anatolian languages Hittite and cuneiform Luwian merely to be expected.

All in all, this leads us to the following transliteration and interpretation of the legend of seal # 294, of which the latter is further elaborated in the linguistic comments following below:

- |   |  |
|---|--|
| 1. <i>X te-ni-te te-te te-na-te</i>   | “With respect to Tanit: they have given to Tanit (in her capacity as the Mistress)   |
| 2. <i>sa<sub>5</sub> TARKU i-i UTNA i-i UTNA i-i ru-</i>  | of Tarkhunt: these: the town (Phaistos), these: the town (Gortyns), these: (the town)  |
| 3. <i>ti<sub>5</sub> SASA 1000 WAINU X te-te hordeum TINATA/I+ti</i>  | Rhytion: (under) the seal 1000 (measures of) wine, (and equally) they have given (1000 measures of) grain because of the tithe.” |
| 4. <i>sa<sub>5</sub>-rú-sa<sub>1</sub> ’pí-sa<sub>1</sub>-ru lu le sa<sub>1</sub>-wa<sub>9</sub>-ta<sub>4</sub> i (fractional unit) x</i> | “Of the king: Písaros, the official, to Sa(r)wa(n)tas: this (fractional unit).”  |

#### COMMENTS

##### A: Primary transaction

###### (1) *te-ni-te* and *te-na-te*

Writing variants of the D sg. in *-e*, paralleled for the peripheral Luwian dialect of Cyprus,<sup>2</sup> of the GN attested for Linear A in form of *ti-ni-ta* (HT 27a.1) and corresponding to Phoenician *Tnt* “Tanit” or “Tinnit” (see section II.9 below).

###### (2) *sa<sub>5</sub>*

Writing variant of the genitive particle *sa* “of”, attested for other Cretan hieroglyphic inscriptions (see section I.1.1 above) as well as for a Linear A text (see sections II.3 and 5 [no. 75] below). It is identical to the Semitic preposition *ša* “of” also attested for

<sup>2</sup> Linear D tablet inv. nr. 1687, line 4: *papire* “for the Paphian (goddess)” and *wVwe* “with an ox”, see Woudhuizen 2016: 200.

cuneiform Luwian (Laroche 1959: 155 [KUB XXXV 54 Vs. II 40: šA EN SISKUR.SISKUR “of the lord of sacrifices”]).

(3) *TARKU*

Undeclined, logographic writing of the GN *Tarku-*, corresponding to the Luwian storm-god *Tarhunt-*, Lycian *Trqqñt-*, *Trqqiz* (cf. Melchert 2004: 71; 132), etc. In view of the fact that the Minoan pantheon features only 3 deities, a divine triad consisting of 2 goddesses and 1 god, *Tarku-* may safely be identified as the north Cretan Luwian equivalent of the south Cretan storm-god *a-du* “Haddu” of Semitic background (see section II.9 below).

(4) *i-i*

A(m/f) pl. of the demonstrative pronoun *i-* “this”, corresponding to the Luwian hieroglyphic demonstrative form *īi* or *īài* of the same function (Woudhuizen 2015a: 232). For the use of the sign depicting a striding magistrate carrying a stick in outline (E27 or CHIC057) for the expression of the vowel *i*, see sections I.7 and II.2 below. Note that the form of the demonstrative in question refers proleptically to the products mentioned on side 3, and is repeated thrice in connection with the word for “town” (2x) or a specific town name (see below) in order to stress that these latter are responsible for the delivery of the goods in question.

(5) *UTNA*

Undeclined, logographic writing of the Luwian hieroglyphic vocabulary word *utna-* “land”. As the third element in the enumeration of words associated with the demonstrative form *īi* “these” definitely consists of a town name (see below), it lies at hand to assume that the “two pyramid”-sign E114 or CHIC034—occurring here in 90° turned position in order to save space—in the present context refers to a town, especially so since towns are normally associated with their surrounding territories and the Luwian hieroglyphic counterpart \*228 in effect interchanges freely with the actual sign for “town”, \*225.

(6) *ru-ti<sub>5</sub>*

Undeclined, syllabic rendering of the TN *Ruti<sub>5</sub>-* “Rhytion”, representing the N(m/f or n) sg. This TN is further recorded in Cretan hieroglyphic for the text of the Phaistos disk in variant form of *ri-ti<sub>1</sub>-na* (# 333, B22; B29) and for a seal *nota bene* reported to have been found in Rhytion itself in variant form *rú-ti<sub>5</sub>* (CMS VI, 1: No. 97,

sides a and c; van Binsbergen & Woudhuizen 2011: 328-329, Fig. 27.1)(see Fig. 44). As Rhytion according to the text of the Phaistos disk is the town located most easterly in the Mesara valley (cf. sections I.10 and IV.1 below), the two towns unspecified by name and referred to only by the land-symbol are likely to be identified as Phaistos (Cretan hieroglyphic  $pa_5\text{-}ya_1\text{-}tu$  [N sg.] or  $pa_5\text{-}ya_1\text{-}ta$ ,  $pa_5\text{-}yá\text{-}ta$  [A sg.], Linear A  $pa\text{-}ya\text{-}ta$ , Linear B  $pa\text{-}i\text{-}to$ ) and Gortyns (Linear B  $ku\text{-}ta\text{-}to$  [KN] or  $ko\text{-}tu\text{-}we$  [PY]), respectively (see sections I.10, II.6, and IV.1 below) (see Fig. 45).

(7) *SASA*

Undeclined, logographic writing of the Luwian hieroglyphic vocabulary word *sasa*- “seal”, either standing for a declined form in the D or Abl. sg. (“under the seal”) or representing a verbal derivative like a participle (“being sealed”). In any case, it is clearly indicated that the commodities mentioned in what follows, the 1000 measures of wine and grain, have been shipped to their destination (viz. Malia) from the places of their origin (Phaistos, Gortyns, and Rhytion in the Mesara) while being sealed.

(8) *TINATA/I+ti*

Abl. sg. in *-ti*, corresponding to Luwian *-ti* for the same function (Meriggi 1980: 275, § 5; 279, § 15; 287, § 41; 294, § 60), of the noun *tinata/i-*, corresponding to Luwian hieroglyphic *tinata/i-* or *tiniti-* “tithe” (Boybeyınarı 1, § 3; Çiftlik, § 13; Sultanhan, § 28, see Woudhuizen 2015a: 299) < PIE *\*dékmt-* “10”. According to this line of approach, the delivery by the aforesaid towns in the Mesara of the given 1000 measures of wine and grain are taking place within the frame of an obligation known as the *tithe*, a tenth from a certain sector of produce granted on a yearly basis to a certain recipient, often a deity, in this particular case the goddess Tanit in her capacity as Mistress of the storm-god Tarkhunt. Note in this connection that the inference that a certain part of the palace of Malia served as a sanctuary of supra-regional importance,<sup>3</sup> and in particular so for the region of the Mesara, can be further underlined by the dedication by

<sup>3</sup> The TN *Malia* is a modern one and not encountered in contemporary Bronze Age documents, but nevertheless it might reasonably be suggested to be based on a reflex of Luwian hieroglyphic *malia-* “sacred”—the more so because the related Luwian TN *Malatya*, alongside regular  $ma_6\text{-}lí\text{-}zā\text{-}$ ,  $ma_6\text{-}lí\text{-}zi\text{-}$ , *MALIA-zī<sub>d</sub>-*, also occurs in shorthand variant form  $ma_6\text{-}lí\text{-}a\text{-}$  (Woudhuizen 2015a: 277). If this etymological relationship holds water, one of the prime functions of the palace of Malia may well have been that of a temple.

the town or region of Sakharwa situated in this latter province (along the western coast according to the text of the Phaistos disk)<sup>4</sup> of an altar stone (# 328) and the dedication by a ruler of the same town or region of his seal (# 271), probably after his retirement, to a certain precinct at Malia (Best & Woudhuizen 1989: 104-108; 115-119; see in the present work section I.8 and Fig. 29. In line with the suggestion in Woudhuizen 2006b: 83, it may alternatively be surmised that the ruler of Sakharwa had a seal bearer stationed in Malia in order to represent him in international trade and diplomacy). As far as the dating of the seal is concerned, it deserves our attention that the scenario reconstructed here is only feasible in the period *before* the Mycenaean take-over, facilitated by the for northeastern Crete disastrous Santorini eruption at the end of Late Minoan IB, c. 1450 or 1440 BC (see section I.3 above). Therefore, the latter date may safely be assumed to serve as a *terminus ante quem*.

### B: Subsidiary transaction

(9) *sa<sub>5</sub>-rú-sa<sub>1</sub>*

G sg. in *-sa<sub>1</sub>*, corresponding to Luwian hieroglyphic *-sa* for the same function (Woudhuizen 2015a: 41; 247), of the Semitic honorific title *šarru-* “king”. Within the frame of our interpretation, the king in question must be that of Phaistos, the only palatial site in the region of the Mesara.

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<sup>4</sup> On account of the data provided by the text of the Phaistos disk, which have a bearing on the period around 1350 BC, the geographic name *Saḥarwa* may reasonably be argued to refer to Hagia Triada and its harbor-facilities in the western coastal part of the Mesara (Woudhuizen 1992a: 42-47). But, the name is ultimately rooted in hydronymy, as its etymological relationship to *Sagur* or *Sakur*, a tributary of the Euphrates which joins the latter in the region of Karkamis (Woudhuizen 2016: 69), and its presumable origin from the same PIE root as Hittite *šakuni-* “spring, source” (if only a *r/n*-stem) may suggest (cf. Gamkrelidze & Ivanov 1995: 104; 550; 583n). As I have suggested in connection with the related Anatolian river name *Seḥa*, this root may well be identified as PIE *\*seik<sup>w</sup>-* “to seep, soak” (Woudhuizen 2011a: 417-418 [note that the palatal in this PIE root as based on Whatmouth 1963: 68 probably results from a printing error as kindly pointed out to me by professor Meid in a letter of February 1, 2014]). At any rate, if our reasoning holds water, the root *Saḥur-* may well be of origin the name of the river which runs through the Mesara valley and its derivative *Saḥarwa* may at some time in history, for instance in the Minoan period before the take-over by the Mycenaean Greeks in Late Minoan II-III A1 (c. 1450-1350 BC), have been a reference to the latter in its entirety.

(10) *ʿpí-sa<sub>1</sub>-ru*

Endingless N(m/f) sg. of the MN *Pisaru-*, singled out as such by the determinative of personal names E14 or CHIC050, corresponding to Luwian hieroglyphic \*383, 1 of the same function. The fact that *Pisaru-*, the first element of which recalls that of the MN *pi-sa-wa-ta* as attested for a Linear B text from Knossos (see Ventris & Chadwick 1973: glossary, s.v.), is the only personal name singled out as such by the determinative in question in my opinion indicates that we are in fact dealing here with the name of the owner of the seal. Against the backdrop of the repetitive nature of the tithe, presumably, as we have noted, being on a yearly basis, it stands to reason to assume that a seal was made by the responsible official in order to facilitate the recurrent event. Note that the omission of the ending of the N(m/f) sg. in the writing of this personal name is in conformity with the practice in Luwian hieroglyphic texts of the Late Bronze Age period (Woudhuizen 2015a: 41).

(11) *lu*

Undeclined, logographic writing of the Semitic honorific title LÚ “man, official” of ultimately Sumerian origin, also found in cuneiform Luwian both as a vocabulary word LÚ- “man” (KBo XXII 254 Rs. 10) and, more commonly, as a determinative for the category of male entries, attributed here to the MN *Pisaru-*, presumably, as we have just noted, the owner of the seal. In the same form this title is also attested for a number of other Cretan hieroglyphic inscriptions (see section I.1.4 above) and, in variant form *rū*—characterized by *l/r*-interchange already encountered in connection with the preposition *le* “to”—, for Linear A texts as well (see sections II.3 and II.5 [no. 29] below).

(12) *sa<sub>1</sub>-wa<sub>9</sub>-ta<sub>4</sub>*

Considering its position following the preposition *le* “to”, the combination *sa<sub>1</sub>-wa<sub>9</sub>-ta<sub>4</sub>* is likely to be analyzed as the personal name of a local official at Malia, who, in his capacity of local representative of the cult of the goddess Tanit, was regularly involved in the recurrent delivery of the tithe by the given towns from the Mesara. If we realize that in Linear B, and sometimes Linear A as well, the final consonant of a closed syllable is often suppressed in writing, it may reasonably be argued that the initial combination *sa-wa<sub>9</sub>-* reflects the Luwian hieroglyphic onomastic element *sarwa-* as attested for the MN *Sarwatiwaras* of the dedicator of the Sultanhan monument already referred to in the above.

(13) *i*

A(m/f or n) sg. of the demonstrative pronoun *i*- “this”, corresponding to the Luwian hieroglyphic demonstrative form *ina* (m/f) or *i* (n) of the same function (Woudhuizen: 2011a: 37; 225-226).

On the basis of the foregoing discussion of the legend of seal # 294 it may safely be concluded that, notwithstanding the presence of little more than a hand full of Semitisms (prepositions *ša* “of” and *le* “to”, GN *Tnt*, honorific titles *šarru*- “king” and *LÚ* “man, official”, and the commodity *WAINU* “wine”), the matrix-language can positively be identified as Luwian on account of not only vocabulary (*sasa*- “seal”, *tinata/i*- “tithe”, *utna*- “land”, *i*- “this”, *te*- “to give”) and onomastics (GN *Tarku*- “Tarkhunt”, onomastic element *sarwa*-), but also—not to say more in specific—the evidence of (pro)nominal declension and verbal conjugation (see Table VII).

NOUN		
	sg.	pl.
N(m/f)	—	-i
A(m/f)	—	
N-A(n)	—	-a
D	-e, -i, -ti	-a(i)
G	-sa (Akk. -i)	
Abl.	-ti	
PRONOUN		
	sg.	pl.
N(m/f)	amu, ti	
A(m/f)	i, ina	ii
N-A(n)	i/ya, ku, taya	ia
D	(a)mi, -mi, -ti	
G	misa, tisa	iyasa, tiyasa, uwisa
VERB		
	sg.	pl.
3rd pers./present tense	-ti	
3rd pers./past tense	-ta	- <sup>n</sup> te

Table VII: Overview of Cretan hieroglyphic evidence for (pro)nominal declension & verbal conjugation (endings featuring in the seal-legend under discussion marked by shading).



Fig. 42: Four-sided bead-seal of white steatite from an unspecified location in Crete (from Evans 1909: 154, P.26).

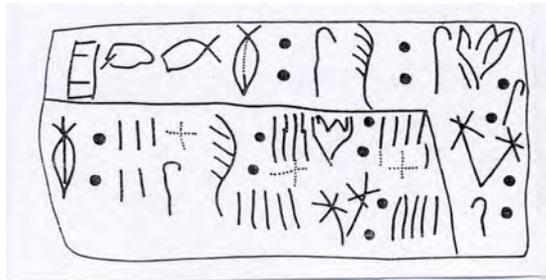


Fig. 43: Hieroglyphic tablet # 122 from Phaistos (from Ventris & Chadwick 1973: 30, Fig. 5).

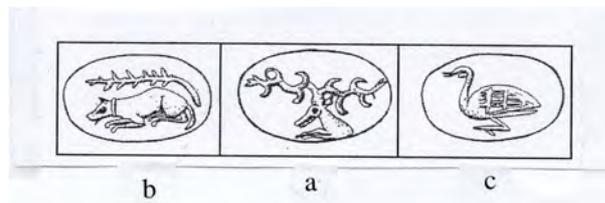


Fig. 44: Three-sided prism bead from Rhytion (after CMS VI, 1: No. 97).

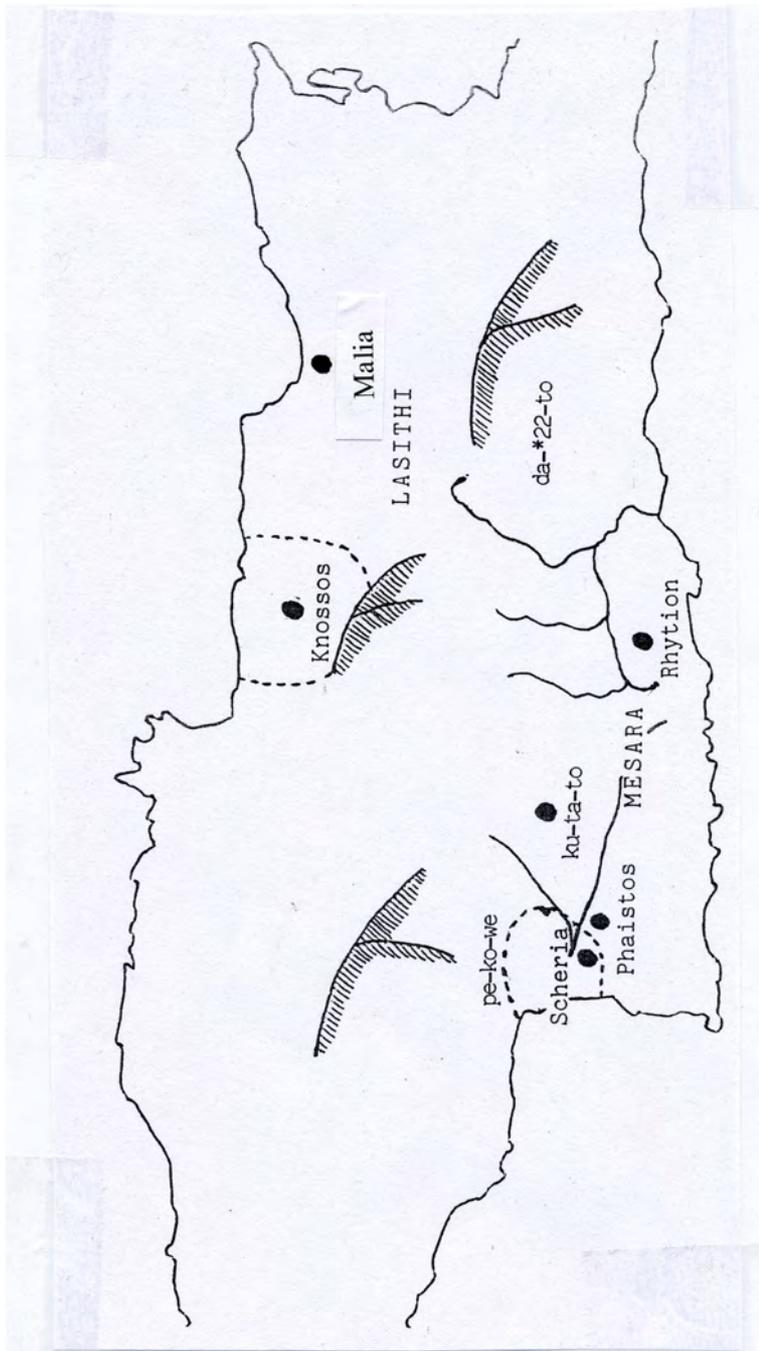


Fig. 45: Map of central Crete (after Woudhuizen 1992a: 45, Fig. 12).

## I.7 CRETAN HIEROGLYPHIC EVIDENCE OF TRADE RELATIONS BETWEEN KNOSSOS AND ATHENS PRIOR TO THE SANTORINI ERUPTION\*

In our discussion of Cretan hieroglyphic we have so far concentrated on the glyptic evidence as well as that of the longer texts because this gives us ample opportunities to verify our readings by structural analysis or linguistic means. These latter tools, however, fall short in an attempt to unravel the contents of the records from the hieroglyphic depots at Knossos and Malia, which consist of short notes or memory aids on labels and clay bars originally attached to or associated with products or some more detailed documents in perishable materials handled by the department of the palace in question. These memory aids are simply too short to present linguistic features of any note, and to this comes that the handwriting is often rather cursory, so that doubts about the correct identification of a sign complicates matters still further.

It is merely as a result of sheer luck that we are able to analyze with some degree of plausibility one particular shorthand note from the hieroglyphic depot at the palace of Knossos and try to disentangle the administrative procedures behind it, because *the seal of the counterpart involved happens to be preserved*. The note in question is that on clay bar # 050, which, after the cross, is characterized on face a by the sequence CHIC042-054-061 *a-té-ná* in combination with an only partly preserved number (250+). This very same sequence also features on side a of clay label # 037 from the same hieroglyphic depot, but, much more important to our purposes, is identical to the personal name, duly singled out as such by the determinative of personal names, of the owner of seal # 293 (see Fig. 29). On his seal, this particular person advertises himself as a *pí-ni* “representative” of the country *hí-ya-wa* “Akhaia”. But what is even more, this personal name also has an occurrence in the legend of seal # 303 (see Fig. 29), where it is staged, as we have seen, as that of the superior of the owner of the seal in question whose name, *bíty-rú*, in turn is singled out as such by the determinative of personal names, again. This deputy of *a-té-ná*, then, presents himself on his seal as a *pí-ni*

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\* This section is a reworked and updated version of Woudhuizen 2009: section I.3 (pp. 91-95).

“representative” *nú pa<sub>5</sub>-ki-wa<sub>8</sub>* “of Pyrgiotissa” (with *nú* corresponding to Egyptian *n* “of”, see Gardiner 1994: 66, § 86), a region to the northwest of the Mesara in Crete.

Now, if we realize that the sign following that of the “bee” as seen from the top (CHIC021) on side d is not another instance of CHIC061 or CHIC069 *ná* but, as signalled by the slight difference in *ductus*, rather that of its Linear A look-alike L58 *rī*, it is most revealing for our analysis of clay bar # 050 that next to the personal name *a-té-ná* we also appear to be confronted with a declined variant of his henchman, *bīty-rú*, namely *bīty-rī*! As emphasized by the preceding CHIC049 *ni*, which may safely be taken for a writing variant of the Akkadian preposition *ANA* “to” currently occurring in the Cretan hieroglyphic records from Knossos and Malia in form of *ná*,<sup>1</sup> according to the legend of side d of our clay bar the large amount of 1240+ entities of an unspecified product was handed over to *bīty-rú*, whose name, in order to prevent any possible misunderstanding, is even characterized by the Luwian dative singular in *-i*.<sup>2</sup> Note in this connection that the use of an ending in combination with an Akkadian preposition is in conformity with the practice in Hittite cuneiform as may be exemplified by *INA* <sup>URU</sup>*Hattuši* “in, to Khattusa”<sup>3</sup> and Ugaritic *i-na* <sup>KUR</sup>*ḥa-at-ti* “in, to Khattum”,<sup>4</sup> where the Akkadian preposition *INA* occurs in combination with a form in the D-Loc. sg. in *-i*.<sup>5</sup> Note also that no doubt the nature of the product involved will have been clear to the responsible bookkeepers and their assistants owing to the association of the clay bar with perishable materials.

From here on, we may continue our analysis as follows. On side b of the clay bar we are confronted with the sequence of CHIC

<sup>1</sup> Cf. Knossos # 038b: *i ná lu* “this to the official”; Malia/P # 112a: *i lu ná pí-ti<sub>6</sub>* “this the official to the king”. Note that the writing variant *ni* of the preposition *ná* “to” also occurs in # 054a from Knossos, which reads: *ni TARKU* 170 “to Tarkhu(nt): 170 (units)”, *i ná a<-sa<sub>1</sub>-sa<sub>1</sub>-ra>* 110+ “this to Asherah: 110+ (units)”. It is interesting to note in this connection that Hittite cuneiform scribes were conscious of the phonetic value of the Akkadian preposition *ANA* “to”, as exemplified by the fact that *A-NA* <sup>m</sup>*A-na-ḥu-u-ri-ya* is written by mistake as *A-NA* <sup>m</sup>*ḥu-u-ri-ya*, see Hoffner 2009: 57.

<sup>2</sup> For cuneiform Luwian, see Laroche 1959: 137-138; for Luwian hieroglyphic, see Woudhuizen 2015a: 210 (esp. Çineköy § 10: *parnàwai URAR(i)* “for the palace”); for Lycian see Melchert 2004: x-xii.

<sup>3</sup> Friedrich 1974: § 362.

<sup>4</sup> RS 20.238, line 21; cf. Güterbock 1998: 201.

<sup>5</sup> My thanks are due to Bernard Kemperman (first year student of Hittite at the time) for this insight.

057-069 followed by the number 407. After a punctuation mark in the form of a vertical line, the legend ends with a partly preserved CHIC092. Of the three signs involved, we are already familiar with the fact that CHIC069 renders the value *ná* and CHIC092 that of *ru*. Of CHIC057 we know that it figures in the profane formula 7 from the legends of the seals and we have assumed that it renders the meaning “official(s)” on account of its correspondence in form to Egyptian hieroglyphic A21 *sr* “official, noble”, depicting a walking man with a stick and a handkerchief. It cannot be denied, however, that this sign, when turned upside down, is strikingly reminiscent of Linear A L100a for the primary vowel *i*. Accordingly, it may reasonably be argued that the essence of CHIC057 is that of a walking figure, corresponding to Egyptian hieroglyphic D54 *iw* “to come”, and that it renders the value of the primary vowel *i* in like manner as its simplified variant on the discus of Phaistos, PD22 (see section II.2 and Fig. 62 below and cf. Fig. 26 above). If this adjustment of value of CHIC057 applies, we are confronted with the form *i-ná*, the interpretation of which in line with Luwian hieroglyphic *ina* as the accusative m/f sg. of the demonstrative pronoun *i-* or *ī-* “this” (Woudhuizen 2015a: 46; 271),<sup>6</sup> referring back to the person named on side a, viz. *a-té-ná*, suggests itself. At any rate, in this manner we arrive at the translation of the entire sequence: “(with respect to) this person [*accusativus respectus*]: 407 (entities of the unspecified product)”, which part of the transactions, if the following *ru* is to be taken for a writing variant of *lu*, corresponding to Sumerian LÚ “official”,<sup>7</sup> characterized by *r/l*-interchange, may reasonably be suggested to have been executed by an intermediary official of lower status than the regular representative. The latter inference coincides with the fact that on side c of the clay bar we appear to be confronted with the regular representative in form of the combination CHIC044-049 *pí-ni*, who can be no other than *bity-rú* of seal # 303, mentioned, as we have seen, in declined variant form on side d. With respect to *a-té-ná*, then, to *bity-rú* are allocated 420+ entities of the unspecified product.

<sup>6</sup> For other instances of the demonstrative pronoun *i-*, see the previous note and cf. Malia/Mu # 090a: *i TARKU ya-ta<sub>6</sub><-nú> ZITI* “Tarkhu(nt) has given this to the official”; Malia/P # 105a: *TARKU ya PIA* “Tarkhu(nt) (has) give(n) this”. In all the given instances the form of the demonstrative refers to perishable materials to which the memory aid had been attached or with which it was associated.

<sup>7</sup> Also traceable in cuneiform Luwian both as a vocabulary word LÚ- “man” (KBo XXII 254 Rs. 10) and, more commonly, as a determinative of male entries.

As it seems, then, 1240+ units of an unspecified product are actually handed over to the person *bity-rú*, partly in his capacity as representative of *a-té-ná* (420+ units), partly in his capacity as a representative of a lower official on behalf of the latter dignitary (407 entities), who himself receives 250+ units directly without interference of any intermediaries. Note in this connection that it stands to reason to assume that the missing 163+ units (= 1240+ — 1077+) of the unspecified product involved concerns *bity-rú*'s own commission as he probably will not be representing *a-té-ná* for free, or, alternatively, his private portion in the undertaking (which has a bearing on local trade and does not need to be recorded in the same manner as international transactions because only the latter are taxed by the palace).

All in all, we arrive at the following transliteration and interpretation of the legend of clay bar # 050 (see Fig. 46):

- a. *a-té-ná* 250+      “Athena(ios): 250+ (units)”
- b. *i-ná* 407/*ru*      “with respect to this (person): 407 (units  
through the medium of an) official”
- c. *pí-ni* 420+      (through the medium of his regular  
representative: 420+ (units)”
- d. *ni bity-rī* 1240+      “to Bitylos (in sum): 1240+ (units)”

Within the frame of our discussion of the seals (see section I.1 above), we have suggested that the personal name *a-té-ná* of the representative of the country *hí-ya-wa* “Akhaia” corresponds to the Greek name Ἀθηναῖος. This may well come into consideration as an ethnic, in which case it would refer to an Athenian, no doubt to be taken for a ruler of Attica. If this is correct, the seals # 293 from Adromili and # 303 from an unspecified region in Crete as well as the clay label # 037 and the clay bar # 050 from the hieroglyphic depot at the palace of Knossos bear testimony of trade between the island of Crete, or, more in specific, the palace of Knossos, on the one hand and Athens in the Greek mainland on the other hand. Now, it stands to reason to assume that this trade is reflected in the myth of Theseus and Ariadne in the form of the Athenian tribute to the Cretan king Minos as reported by the literary sources, especially so in the light of the fact that also the Egyptian pharaohs were accustomed to refer to trade connections in terms of tribute. As this myth is situated before the downfall of Crete as a result of the for north-eastern Crete disastrous Minoan eruption of the Santorini volcano, the documents from the hieroglyphic depot at the palace of Knossos

are likely to be dated to the end of Late Minoan IB, *c.* 1450 BC, instead of that of Middle Minoan III, *c.* 1600 BC, or even Middle Minoan II, *c.* 1700 BC, as is generally assumed, from which it further follows that the palace of Knossos was affected by this disastrous event in like manner as the rest of Crete.

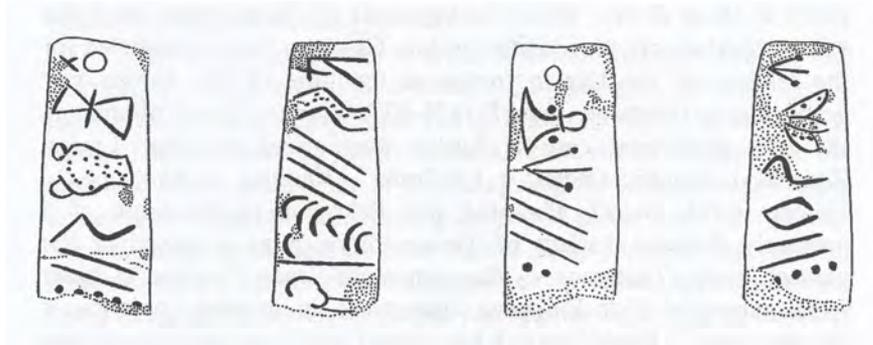


Fig. 46. Clay bar # 050 from the hieroglyphic deposit at the palace of Knossos (from Olivier & Godart 1996: 102).

## I.8 THE INSCRIBED ALTAR STONE FROM MALIA\*

The altar stone from Malia (MA) inscribed with a Cretan hieroglyphic legend (# 328) was found by a farmer in 1937 and published by Fernand Chapouthier in 1938 (see Fig. 47). As a stray find, the altar stone unfortunately cannot be dated on the basis of archaeological criteria. From an epigraphical point of view, it might be argued that the rather obvious influence from Linear A in the Cretan hieroglyphic signary (see below) signals a period of coexistence between the two scripts and as such provides us with the final stage of Middle Minoan II, *c.* 1720-1700 BC, when Linear A was devised under the influence of the likewise linear script from Byblos (Woudhuizen 2007: 709-710), as a *terminus post quem*. On the other hand, we will see in the discussion of the Cretan hieroglyphic inscriptions on the double axe from Arkalokhori and the discus of Phaistos (see sections I.9 and I.10 below) that these two texts, which represent the latest stage in the existence of the script in question, show such a minimal influence from Linear A in their signary that one might almost entertain the idea of a conscious attempt at hieroglyphic purification. If so, the latter texts, which on the basis of their contents can be dated to the Late Minoan IIIA1 period, say *c.* 1350 BC for the discus and a generation before this for the double axe, may well provide us with a *terminus ante quem* for the inscription on the Malia altar stone.

The inscription on the altar stone consists of 15 signs in sum, 3 of which occur twice, so that we actually happen to be dealing with 12 individual signs. According to the analysis of the editor of the stone, Chapouthier, its legend runs from the top side to the bottom (see his numbering of the signs in Fig. 47), in which case the stroke at the top serves as a marker of the beginning of the text. In addition to this, he also observed with respect to the signary that two of the signs, his nos. 2 and 9, are closely paralleled in form by a counterpart on the Phaistos disk, *viz.* the larger head PD03 and the “Lycian house” PD24, respectively (the given identification of PD24 we owe to the merit of Mellink of 1964). Notwithstanding so, the general assignment of the legend to the Cretan hieroglyphic class of writing cannot be doubted in view of the fact that signs 3, 4, 5, 7, 14, and 15 have obvious counterparts in E24 or CHIC056, E112 or CHIC070,

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\* This section is a reworked and updated version of Best & Woudhuizen 1989: 104-108 and Woudhuizen 2006b: section III.2A (pp. 107-113).

E97 or CHIC025, E15 or CHIC051, E44 or CHIC038, and E101 or CHIC029, respectively.

Now, the value of the individual signs can be easily recovered from oblivion by their correspondence to counterparts in Luwian hieroglyphic on the one hand and Cretan Linear A on the other hand, that is to say: if we are willing to accept the principle that identity (or relationship) in form implies identity (or relationship) in value. To the first category belong signs nos. 2, 3, 7, 9, 12, and 13, which in form are linked up with LH \*10 *ḪARMAḪI*, [*ḫár*], LH \*327 *SASA*, *sa*<sub>5</sub>, LH \*312-313 *ZITI*, *zí*, LH \*167 [*PARNA*, *pa*<sub>3</sub>], LH \*111 *ḪAWA*, *ḫa*<sub>4</sub>, and LH \*268 *ḪWI*, *ḫù* (see Fig. 25). To the second category we may safely assign nos. 1, 4, 5, 6, 14, and 15, which in form are clearly matched by the variant of the wine-ideogram L82 *WAINU* rendering the acrophonic value *wa* (see Fig. 41), L22 *lū*, L92 *te*, L78 *ti*, L32 *ya*, and L30 *da* (see Fig. 27). The value of the signs as determined in this manner can in a number of instances even be verified, as in case of nos. 4, 5, and 6, which, apart from their correspondence to Linear A L22 *lū*, L92 *te*, and L78 *ti*, are also affiliated to LH \*186 \**luk-*, *lu*, LH \*151 *TELIPINU*, [*te*], and LH \*499 *ti*<sub>8</sub>, whereas conversely no. 7, apart from its correspondence to LH \*312-313 *ZITI*, *zí*, also happens to be related to Linear A L36 *zi* (see Figs. 25 and 27).

As it seems, then, the attribution of values to the signs is, give and take a few cases about which opinions may vary (note especially that the sign in 13th position should be distinguished from its look-alike the “arrow” E13 or CHIC049 expressing the value *ni*) not so problematic. What is problematic about the inscription is its direction of writing. In general, in hieroglyphic writing systems of the Mediterranean, like Egyptian hieroglyphic and, more to the point for our purposes, Luwian hieroglyphic, the heads of humans and animals face the beginning of the text and hence look backwards to the direction of writing. This is also the case with the humans and animals in the text of the discus of Phaistos, with the exception of the sometimes freely placed flying bird of prey PD31. On the basis of this principle, the editor of the text, Chapouthier, has, as we have noted in the above, numbered the individual signs as running from top to bottom, because the human head (and, we might add, that of the sheep) in this manner look at the beginning of the text. It must be realized, however, that in glyptic sources, which make up the overwhelming majority of the documents in Cretan hieroglyphic writing, this rule is not consistently applied. Thus it so happens that, for example, on seal # 255, of which all three sides are written from left to right (the first turning boustrophedon in its second line) the animal head with

protruding tongue (E73 or CHIC018) looks to the beginning of the text. But in the case of seal # 271 the overall direction of writing is from right to left as the seal starts as usual with the seal sign (E24-25 or CHIC056), whereas the three animal heads face the left, i.e. the end of the inscription. The same applies to seal # 310, which also starts with the seal sign and runs from left to right over all its four sides, the man (E2 or CHIC001) and the animal head (E65 or CHIC016) on side 3 facing the right, i.e. the end of the inscription (for the seals referred to, see Fig. 29). As a final example, attention may be drawn to the eight-sided seal # 314, which starts with the cross from left to right, then goes on in lines 2-4 from right to left, turns in the fifth line back to left-to-right direction of writing, in order to finish in lines 6-8 in right-to-left direction of writing. In all instances the animal head with or without protruding tongue (E73 or CHIC018) looks to the end of the text; only the non-predatory bird (E82) in line 8 looks to the beginning of the text (see discussion in section I.5 above and Fig. 37). Taking this situation in the glyptic sources as our starting point for the analysis of the inscription on the Malia altar stone, it hence cannot be excluded that the inscription runs from bottom to top, in which case the stroke at the top would function as a marker of the end of the text.

As a matter of fact, it so happens to be that only when read from bottom to top a coherent interpretation of the inscription in its entirety is within the range of possibilities. At any rate, this approach leads us to the following transliteration and interpretation of the text:

*ta<sub>1</sub>-ya<sup>u</sup> HAWA-sa<sub>5</sub>-wa<sub>1</sub> pa<sub>5</sub>-lu-zí-ti<sub>8</sub> te-lu sa<sub>5</sub>-hár-wa<sub>1</sub>/*  
 “This inscribed altar stone for Baluzitis, delivery: Skheria”

One of the outstanding features of the present transliteration is the fact that we are in this manner confronted with the combination *HAWA-sa<sub>5</sub>-wa<sub>1</sub>*, which, for its close correspondence to Hittite *huwaši-* “altar stone”,<sup>1</sup> likely bears reference to the object itself. In similar vein, the legends of the seals often start with the seal sign, E24-25 or CHIC056 *SASA*, and in the inscription of the double axe of Arka-lokhorri we can discover the sequence *i+à l(a)+PÁRA* “these double axes”,<sup>2</sup> in short: it is a very common feature of the Cretan hieroglyphic inscriptions that the object itself is explicitly mentioned. In our interpretation, this indication of the altar stone is specified by the

<sup>1</sup> Tischler 1982, s.v.

<sup>2</sup> See section I.9 below.

determinative *scalprum* with phonetic reading *HWI*, *hù* as being inscribed. Furthermore, the initial combination *ta<sub>1</sub>-ya* clearly renders the N-A(n) sg. in *-ī* of a demonstrative pronoun *ta-* (< PIE *\*to-*)—paralleled Luwian hieroglyphic (Südburg text § 17),<sup>3</sup> Cypro-Minoan (Kalavassos cylinder seal K-AD 389, line 7)<sup>4</sup> and, in the form of *θθe<sub>1</sub>*, for Lycian (Xanthos trilingue, line 9 [A(n) sg.])<sup>5</sup>—and in so doing provides us with the earliest recorded evidence for the Luwian hieroglyphic N-A(n) ending in question, being written in inscriptions from Anatolia and North Syria conducted in Early Iron Age scribal tradition (i.e. from the 10th century BC onwards) only.<sup>6</sup> The combination of demonstrative and indication of the object, then, is followed by the sequence *pa<sub>5</sub>-lu-zī-ti<sub>8</sub>*, which can easily be identified as a MN of composite nature, combining the Semitic onomastic element *ba'al* “lord, ruler” with that of Luwian *ziti-* “man” in like manner as Neuville combines German *neu* with French *ville*,<sup>7</sup> although in the present context (dedication of an altar) the idea of a reference to a deity may seriously be entertained. In any case, considering that its final vowel is *i*, this name, be it MN or GN, may well render the D sg. in *-i*,<sup>8</sup> hence the translation “for Baluzitis”. Next, we may plausibly isolate the couple *te-lu* because this strikingly recalls the technical transaction term *te-lū* as recorded for the Linear A tablets of Hagia Triada, where it functions in like manner as Linear B *a-pu-do-si* “delivery”; the transaction term in question originates from Semitic *tēlū* “Einkünfte, Ertrag”.<sup>9</sup> Finally, we are left with the residual *sa<sub>5</sub>-hár-wa<sub>1</sub>*, which calls to mind the indigenous name for the town of Hagia Triada, *Skheria*, which is further attested in Cretan hieroglyphic documents in writing variants *sà-hur-wa<sub>9</sub>* (seal # 271, side 2), *sa<sub>1</sub>-hár-wa?* (double axe of Arkalokhori), and *sa<sub>3</sub>-hár-wa<sub>10</sub>* (Phaistos disk A28 and A31), and, in adjectival derivation, in Linear B as *sa-ka-ri-jo* or *sa-qa-re-jo*.<sup>10</sup> Note that the final section

<sup>3</sup> Woudhuizen 2015a: 49.

<sup>4</sup> Woudhuizen 1992a: 139.

<sup>5</sup> Laroche 1979, s.v. line 9.

<sup>6</sup> Woudhuizen 2015a: 248; for omission of this ending in texts conducted in LBA writing tradition, see p. 41.

<sup>7</sup> Von Soden AHW, s.v. *ba'ūlu*; Laroche 1966, s.v. For *BEL* “lord” in cuneiform Luwian, see KUB XXXV 54 Vs. ii 32: *BE-EL SISKUR.SISKUR* “lord of sacrifices”.

<sup>8</sup> For cuneiform Luwian, see Laroche 1959: 137-138; for Luwian hieroglyphic, see Woudhuizen 2015a: 210 (esp. Çineköy § 10: *parnāwai URAR(i)* “for the palace”); for Lycian see Melchert 2004: x-xii.

<sup>9</sup> Best 1973: 54; cf. Table XV in section II.1 below.

<sup>10</sup> See sections I.10 and IV.1 below.

of our text is conducted in what may aptly be called a telegram style: “delivery: Skheria”, whereas normally in Linear A and Cypro-Minoan *te-lu* is followed by a personal name in the D sg. in *-ti*: *te-lū da-ku-se-ne-ti* “delivery to Taku-šenni” (HT 104.1-2) and *te-lu sa-ne-me-ti* “delivery to Sanemas” (Enkomi cylinder seal, inv. no. 19.10, lines 25-6).<sup>11</sup>

The linguistic features recovered from oblivion in this manner may be summarized as follows in Table VIII.

Malia	LH	Semitic	meaning
1. <i>ta-</i>	<i>ta-</i> , <sup>12</sup> $\theta\theta e_1$ (Lyc.)		“this”
2. <i>ḥawasawa-</i>	<i>ḥuwaši-</i> (Hit.)		“altar stone”
3. <i>ziti-</i>	<i>ziti-</i>		“man”
4. <i>telu</i>		<i>tēlû</i>	“delivery”
5. <i>palu-</i>		<i>ba‘al</i>	“lord, ruler”
6. <i>-ya</i>	<i>-ī</i>		N-A(n) sg.
7. <i>-i</i>	<i>-i</i>		D sg.

Table VIII. Overview of the linguistic features.

From this overview, it can be deduced that the language of the inscription on the Malia altar stone is conducted in a Luwian dialect closely related to that of Luwian hieroglyphic, whereas it includes loans from Semitic, which, however, should not surprise us given the fact that the main administrative language of Minoan Crete as recorded for Linear A happens to be a Semitic idiom<sup>13</sup>—not to mention the importance of Akkadisms (and Sumerograms) in the cuneiform scripts of the Hittites and Luwians in Anatolia.

<sup>11</sup> Woudhuizen 1992a: 96; 115; Woudhuizen 2006a: 44-45 or van Binsbergen & Woudhuizen 2011: 224-225.

<sup>12</sup> Also in Cypro-Minoan.

<sup>13</sup> See sections II.1 and II.3-5 below.

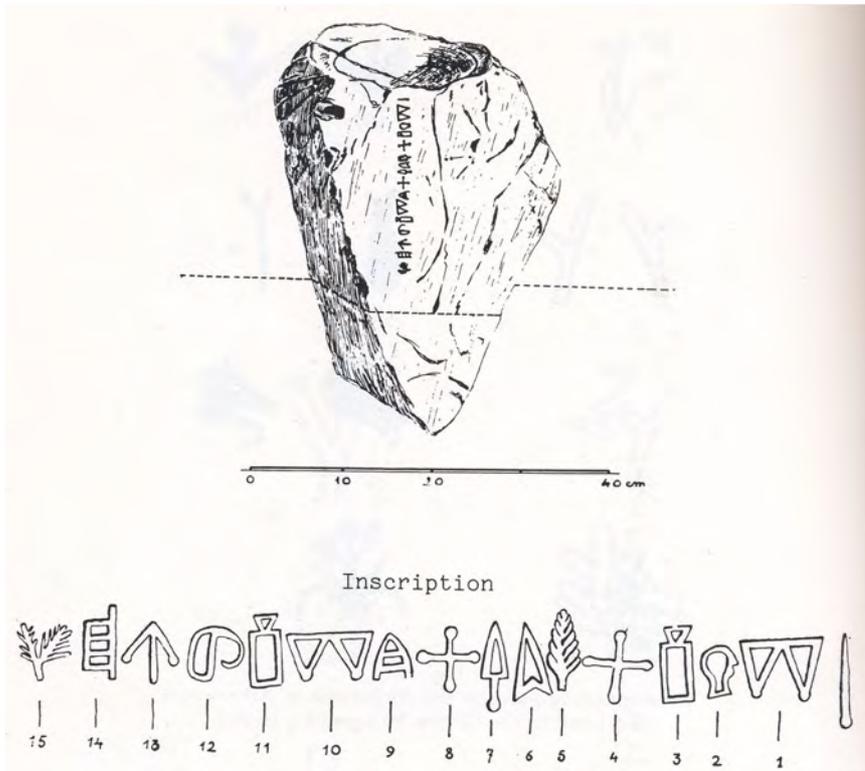


Fig. 47. The inscribed altar stone from Malia with its inscription (from Chapouthier 1938: 105).

## I.9 THE INSCRIPTION ON THE DOUBLE AXE FROM ARKALOKHORI\*

According to Spyridon Marinatos in his survey of the excavations and finds in Crete during the season 1934-5, the most important find that came to light in the course of the excavations at Arkalokhori was a bronze double axe with three vertical columns on its shaft incised with a number of hieroglyphic signs (see Fig. 48).<sup>1</sup> This double axe (DA) was found in a votive-depository together with a large number of other double axes, merely decorated with ornamental motifs, which is apparently connected with a sanctuary in the same cave, where, amongst an altar and other objects, only silver and gold double axes were discovered. The whole treasure is reported by Marinatos to belong to the Middle Minoan III/Late Minoan I transitional period (*c.* 1600 BC), but at least one gold double axe from the sanctuary is assumed by him to be characterized by Late Minoan Palace Style influences. If this is correct, the dedication of objects must have continued after the assumed collapse of the cave in the course of the disastrous Santorini eruption, now datable to *c.* 1450 BC thanks to the discovery of tephra from the Minoan eruption of the volcano in a layer dating to the reign of Tuthmosis III (1479-1425 BC) at Tell el-Dab‘a-Avaris by Manfred Bietak.<sup>2</sup> Such an inference coincides with the analysis of Elizabeth Pierce Blegen, according to which the gold and silver double axes with the Linear A legend *i-da-ma-te* from the same cave are associated with other double axes decorated in Palace Style (*c.* 1450-1350 BC).<sup>3</sup>

In the inscription on the bronze double axe under discussion, then—which is not included in CHIC because according to one of its authors, Louis Godart (1994a: 126), it is merely a pseudo-inscription and therefore assigned here with a number following that of last inscription included in the corpus, so # 332—, was distinguished at first a total number of 15 signs, 6 in the left and middle column and 3 in the one on the right, showing a repertory of 10 individual signs. Some of these signs were keenly observed to be related with the

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\* This section is a reworked and updated version of Best & Woudhuizen 1989: 97-104 and Woudhuizen 2006b: section III.2B (pp. 114-118).

<sup>1</sup> Marinatos 1935: 250 ff.

<sup>2</sup> Bietak 2000: 194; see section I.3 above.

<sup>3</sup> Vandenabeele 1985: 5; Pierce Blegen 1935a: 135 “...and the decoration of the double axes belongs to the type which furnished the inspiration for the second period of the Palace Style pottery ca 1450-1400 BC”.

syllabary on the discus of Phaistos, like the first sign in the column at the left in form of a “feathered head” to PD02, the second sign in this column in form of a “supporting pole” to PD19, to which may possibly be added the correspondence of the third sign in the same column in form of a “feathered head en face” to the larger head PD03, leading to the identification of the “scratch” attached to the first sign in the column at the left as a separate sign corresponding to the “thorn” PD46. At the same time, it was acknowledged that some of the signs were also or rather linked up with counterparts in Cretan hieroglyphic, like the “supporting pole”, again, corresponding to E60 or CHIC019, or the “flower” sign in the middle of the column at the right being clearly related to E92 or CHIC031.<sup>4</sup> Only one sign, the crossbeam with a row of three dots underneath, which appears in the left column and can be most plausibly be reconstructed for the central gap in the middle column with two vertical dots still visible, is acknowledged to recur in a Linear A inscription on a cup from Apodulu in western Crete.<sup>5</sup>

Careful inspection of the photograph in Duhoux 1977 (= his Fig. 26 on page 80), however, has convinced me that the second sign from below in the left column is—on the analogy of the combination of the “feathered head”, corresponding to PD02, with the “thorn”, corresponding to PD46, at the beginning of this column—a ligature of the counterpart of PD22 on the discus with another sign in the form of an angle turned to the right and ending in a notch, attached to the right protuberant on its lower side. Similarly, the final sign in this particular column on close inspection turns out to be a ligature of the “animal head with protruding tongue”, corresponding to Cretan hieroglyphic E73 or CHIC018, with a sign in the form of two horizontal bars or ovals, of which the lower one is slightly extending downwards at the left side, placed just a little above the animal head like some strange kind of headdress (see Fig. 49). As it seems, therefore, there are (apart from the “thorn”) two more extra signs, adding up to a total of 13 individual signs.

Now, on the basis of the principle that identity (or relationship) in form implies identity (or relationship) in value, the value of as much as 9 individual signs can be recovered from oblivion by their correspondence to a counterpart in Luwian hieroglyphic. This concerns: (1-2) the ligature of “feathered head” with “thorn” at the start of the column on the left, which corresponds to LH \*19 á and LH

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<sup>4</sup> Pierce Blegen 1935b: 615.

<sup>5</sup> Marinatos 1935: 253; Pierce Blegen 1935b: 615.

\*383, 2 +*r(ai)*, used, as we have seen in section I.6 above, in Cretan hieroglyphic for the expression of the original pre-rhotacized value +*ti*, (3) the “feathered head” en face in third position of the same column being related to LH \*10 *HARMAHI*, [*hár*], (4) the hooked sign attached to the counterpart of PD22, which cannot be dissociated from LH \*450 *à*, (5-6) the “animal head with protruding tongue” at the lower side of the column on the left, which is related to the man’s head with protruding tongue LH \*13 *PÁRA*, and the sign with which it is in ligature in the form of two horizontal bars or ovals, of which the lower one is slightly extending downwards at the left side, which recalls LH \*85 *l(a)*, (7) the second sign in the middle column in the form of a “hand that grabs”, which is identical to LH \*41 *tà*, (8) the “inverted arrow” in first position in the column to the right, which bears a close resemblance to LH \*308 *ta, tu, ha* or *wa*, and (9) the “flower” sign in the middle of this same column, which can positively be identified with the branch of the pomegranate LH \*153 *nú*, respectively. Of the remaining 3 signs, the partly damaged sign at the end of the middle column can on the basis of inspection of the photograph be positively related to LH \*332 *NAWA, na<sub>4</sub>* (see Fig. 49), whereas the closest parallels of the “supporting pole” and the “crossbeam with a row of three dots underneath” are rather provided by counterparts in Linear A, the first corresponding to L31 *sa<sub>1</sub>* and the second, as noted in the above, to a variant of L26 *na* as attested for the inscription from Apodulu.

Now, to be frank, among the foregoing identifications, the reconstructed one suggested to resemble the pattern of LH \*332 *NAWA, na<sub>4</sub>* and the “crossbeam with a row of three dots underneath” identified by Pierce Blegen with a variant of Linear A L26 *na* as attested for an inscription from Apodulu are, with a view to the context, highly problematic. In section I.1.2 above I have already suggested that the first mentioned sign may well have been used by mistake by the scribe instead of the relative sign LH \*329 *HWA, hù*. In any case, the reading of the combination of the lower three signs in the middle column as *á-hár-hù*, a personal name corresponding to *á-har<sub>1</sub>-ku* “Akharkus” in B17 on the Phaistos disk, who is identified here as the predecessor of the vassal king of the hinterland of Phaistos, Uwas, is extremely tempting. As regards the second sign, the value *na* is an absolute non-starter and leads us nowhere, whereas if it would render the meaning *wa* the contexts in which it appears immediately begin to make sense. Thus in the first case of its appearance we would be confronted with a writing variant of the geographic name *Saharwa* “Skheria” which in section I.1.4 we have identified, in line

with the evidence from the text of the discus of Phaistos (see section I.10 below), as the ancient name of Hagia Triada (see section IV.1 below and cf. Fig. 45 above), whereas in the second case of its appearance its identification with the Luwian hieroglyphic introductory particle *-wa* lies at hand. For these reasons, then, I propose to transliterate the sign reconstructed for the lower side of the middle column as *hù* and the “crossbeam with a row of dots underneath” as *wa?*.

If we realize, finally, that the columns most likely are to be read from left to right so that the man’s head at the start of the left and middle columns looks to the end of the text (cf. our remark on this feature in connection with the discussion of the Malia altar stone in the preceding section), in sum these results lead us to the following transliteration and interpretation of the text on the double axe from Arkalokhori:

- |  |                      |                                |
|--|----------------------|--------------------------------|
| 1. <i>á+ti sa<sub>1</sub>-hár-wa?</i>      | <i>i+à l(a)+PÁRA</i> | “In Skheria: these double axes |
| 2. <i>á-tà -wa?</i>                        | <i>á-hár-hù</i>      | Akharkus, the son of Khanus,   |
| 3. <i>ha<sub>5</sub>-nú-sa<sub>1</sub></i> |                      | has made (them).”              |

Considering the close relationship of the double axe as to its signary with the discus of Phaistos, the most conspicuous elements in this text are of course formed by the recurrence of the geographic name *sa<sub>1</sub>-hár-wa?* “Skheria” in a graphic variant and of the personal name *á-hár-hù* “Akharkus” in a graphic variant, respectively. Of these, the personal name last mentioned, which occurs without the ending of the N(m/f) sg. as is regular for Luwian hieroglyphic Late Bronze Age texts,<sup>6</sup> is associated here with a second personal name characterized by the G sg. in *-sa*, corresponding to Luwian hieroglyphic G sg. in *-sa*,<sup>7</sup> which obviously functions as a patronymic. The root of this second name probably reads *ha<sub>5</sub>-nú-* in view of the correspondence thus achieved with Cappadocian *Hanu-*.<sup>8</sup> On the other hand, it is interesting to note that in comparison with the text of the Phaistos disk a just about similar proportion of the syllabary can

<sup>6</sup> Woudhuizen 2015a: 41.

<sup>7</sup> Woudhuizen 2015a: 41; 247.

<sup>8</sup> Laroche 1966, s.v. Although *Ta-nu-u* also provides a possible equivalent, *Hanu-* is preferred here, because, considering the correspondence of *ku-na-wa<sub>10</sub>* and *ú-wa<sub>8</sub>* from the text of the discus of Phaistos, to *Kunaa-* and *Úwaa-*, respectively, there appears to be a significant number of Cappadocian names recorded for the region of Phaistos and its hinterland.

be connected with the Luwian hieroglyphic script (at least 10 out of 13 as against 32 out of 47 for the Phaistos disk).

On the other hand, it must be admitted that the preposition  $\acute{a}+ti$  “in” preceding the geographic name “Skheria” deviates in so far as its final vowel is concerned from Luwian hieroglyphic  $\acute{a}+ta$ , etc., on the one hand and its local Cretan offshoot  $\acute{a}-tu_6$  as attested for the text on the discus of Phaistos on the other hand, which is characterized by the typical Cretan  $a/u$ -vowel shift. Nonetheless, we can be sure that its present transliteration is correct because the same preposition occurs in writing variant  $\acute{a}+t\grave{i}$  (with the “branch” in ligature with the “man’s head” being the counterpart of LH \*172 (+)  $t\grave{i}$ ) on a clay label from Malia, reading  $\acute{a}+t\grave{i} wa_1-t\grave{i}_1$  “in the town” (with  $t\grave{i}_1$  being based on the correspondence of the last sign to PD 23),  $ta_5-ru<-n\acute{u}>$  “(of) Atlantis” (= the shorthand version of our PF 6) in sum (see Fig. 50). Furthermore, the same preposition appears in a Linear A inscription from Monte Morrone along the Adriatic coast of Italy, which is conducted in the Luwian language and starts with the sequence  $a-ti a-ri-ti-ya$  “in Adria” (see section II.7 below).

Given the high number of parallels among the signary of the inscription on the double axe from Arkalokhori with counterparts in the Luwian hieroglyphic script, the remaining words and linguistic elements are easily explained according to Luwian (hieroglyphic) vocabulary and grammar. Thus the combination  $i+\acute{a}$  bears a striking resemblance to the N-A(n) pl. of the demonstrative pronoun  $\bar{i}$ -, viz.  $\bar{i}-\bar{a}$ , which in Late Bronze Age texts also occurs as  $i-a$ !<sup>9</sup> This is followed by the entry  $l(a)+P\acute{A}RA$ , which, on the basis of the Lydian gloss informing us that the equivalent of Greek *pelekus* “double axe” is *labrus* in this language, evidently can be identified as the indication of the object itself.<sup>10</sup> Although for its partly logographic writing the ending is not explicitly indicated, the fact that the word is qualified by the demonstrative  $i-a$  suggests that we are dealing here with a N-A(n) pl. in  $-a$ , corresponding to Luwian hieroglyphic  $-a$  or  $-\bar{a}$  for the same function.<sup>11</sup> This inference leads us to the conclusion that the double axe under discussion was part of a votive offering consisting of more than one specimen, which, in the light of the find-context, seems a fairly reasonable assumption. Finally, the combination  $\acute{a}-t\grave{a}$

<sup>9</sup> Woudhuizen 2015a: 38 (Yalbur § 44); cf. also cuneiform Luwian *iya* of the same function as attested in one of the Istanuwan songs, KUB XXV 39 Vs. i 27.

<sup>10</sup> Gusmani 1964: 275; note that this root is also present in Carian Zeus *Labraundeus* and, of course, Cretan *Laburinthos*—no doubt the name of the sanctuary of the palace of Knossos after its most prominent cult symbols, double axes.

<sup>11</sup> Woudhuizen 2015a: 41; 248.

-*wa?* at the beginning of the second column appears to consist of an element -*wa?*, corresponding to the Luwian hieroglyphic introductory particle -*wa*,<sup>12</sup> and a verbal form *á-tà*, identifiable as the 3rd person singular of the past tense in -*tà* of the verb *á-* “to make”, corresponding to Luwian hieroglyphic *átà* or *átàà* of the same meaning.<sup>13</sup>

In regard to matters of syntax, it deserves our attention that the word order of the phrase *ia lapara ata -wa Aḫarḫu Ḫanusa*, which is characterized by the sequence *object—verb+introductory particle — MN+patronymic*, strikingly recalls the one used in the standard formula in Lycian grave inscriptions of the type: *ebēññē ñtatā me ne prñnawātē Pulenjda Mullijeseh se Dapara Pulenjdah* “this grave, Apollonides, (the son) of Mollisos, and Laparas, (the son) of Apollonides, have built it” (TL 6).<sup>14</sup> As a consequence of this, the preceding combination *ati Saḫarwa* is likely to be analyzed as a separate entity or, to be more specific, a heading. Now, a similar heading can be found at the start of the text of the discus of Phaistos, which runs as follows: *atu Masaru sati Payatu* “in the Mesara is Phaistos”. In case of the double axe of Arkalokhori, however, the given heading is not likely to refer to its find spot in like manner as it is the case with the Phaistos disk, but to the object’s place of origin, because the evidence on Skheria from the discus of Phaistos strongly suggests its identification, as we have already noted in the above, with Hagia Triada in the western part of the Mesara (see section IV.1 below and Fig. 45 above). Apparently, then, a series of double axes had been dedicated to a sanctuary in Hagia Triada and subsequently been transported to the cave of Arkalokhori, perhaps as a rescue operation in the face of an emergency.

As far as the dating of our inscription is concerned, it is of relevance to note that the name of the dedicator, Akharkus, occurs, as we have noted, in variant writing in the text of the discus of Phaistos, and that the person thus addressed is specified here as the predecessor of the vassal king of the hinterland of Phaistos in the eastern part of the Mesara, Uwas. Accordingly, the inscription of the double axe of Arkalokhori may safely be assigned to about a generation before that of the discus of Phaistos, which means *c.* 1400-1370 BC.

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<sup>12</sup> Woudhuizen 2015a: 52; 307.

<sup>13</sup> Woudhuizen 2011a: 238 (Sultanhan §§ 13 and 45).

<sup>14</sup> Houwink ten Cate 1961: 87-88.



Fig. 48. Drawing of the inscription on the double axe from Arkalokhori (Boufides 1953-4: 62, Eικ. 2β).

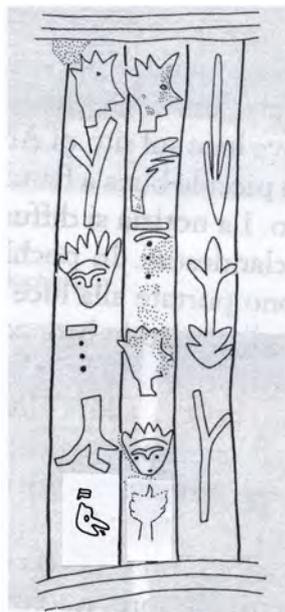


Fig. 49. Reconstruction of the inscription on the double axe from Arkalokhori by the author using the drawing by Godart 1994a: 126, Fig. 34 as a starting point.

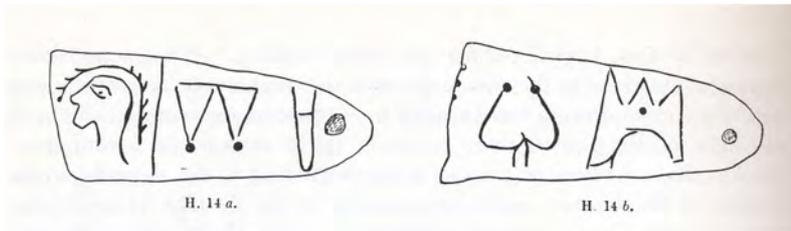


Fig. 50. Clay label from Malia (Chapouthier 1930: 22, H.14).

## I.10 THE TEXT ON THE DISCUS OF PHAISTOS\*

The Phaistos disk (PD)—which is not included in CHIC and to which therefore has been assigned a number here following that of the last inscription included in the corpus and that of the double axe of Arkalokhori (DA), so # 333—, is carefully imprinted on both sides with *c.* 260 hieroglyphic signs in sum (see Figs. 51-52). According to a profound epigraphical case-study by Yves Duhoux these signs were impressed into the wet clay, apart from some secondary corrections, from the outside to the inside *after* the spiderweb of lines had been drawn. Clearly, therefore, the scribe must have had knowledge of exactly how much space had to be filled in between the word or word-combination divider before he even started printing, so that he may very well have been working on the basis of a preconceived model. It is further worth mentioning that the spiral on side B, in contrast to the one on side A, has not been drawn in a continuous line. This is probably due to the fact that the scribe had to be more careful after imprinting the first side and had to lift the object from his desk with every necessary turn to prevent any mutilation of the already finished part of the text.<sup>1</sup> In view of the assumption that the scribe worked from a preconceived model, it is a most stunning fact that a fragment of such preliminary draft has actually been found in the form of the discus of Vladikavkaz, which may reasonably be assumed to have come to light as a result of military defence works by the Russian fleet near Pylos during the battle of Navarino on 20 October 1827 AD!<sup>2</sup> However this may be, all these and similar facts, like for instance the intentional firing for preservation,<sup>3</sup> have given us reason to believe that the text was considered to be of more importance than the average Linear A and B tablets for economic registration and has therefore come down to us as refined as it was meant to be.

The only infringement upon this condition is due to later developments during the course of its preservation. At the fringes of the discus there are some damaged spots confined to the outer bands of the spiral on both sides, probably caused by its downfall from an

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\* This section is a reworked and updated version of Best & Woudhuizen 1989: 72-83; Woudhuizen 1992a: 11-35; Woudhuizen 2006b: section III.2C (pp. 118-121).

<sup>1</sup> Duhoux 1977: 19-21.

<sup>2</sup> Achterberg e.a. 2004: 137-141.

<sup>3</sup> Duhoux 1977: 17 (“régularité de coloration” > “volontairement cuit”).

upper storey at the end of Late Minoan IIIA1, *c.* 1350 BC. This late dating as compared to the conventional one, which assigns the discus to the period of *c.* 1850-1600 BC, is emphasized by the fact that the object fell down from an upper storey together with a Linear A tablet, PH 1, which contains (in line 1 of side a) a MN, *di-ra-di-na*, which is also attested in variant form *di-re-di-na* for one of the Hagia Triada tablets (HT 98a.2-3). Now, the corpus of Hagia Triada tablets in its turn can be dated synchronous with the bulk of the Linear B tablets at the palace of Knossos on the basis of the occurrence in both corpora of the same personal names, to be designated as “big linkers” or “linkers” in accordance with their frequency, and the Knossos tablets in question can, notwithstanding the ongoing controversy on the topic, safely be assigned to the destruction level of the palace of Knossos at the end of Late Minoan IIIA1, *c.* 1350 BC (see further section IV.2 below).<sup>4</sup> To return to the damages of the discus, these concern A7, where the “thorn” sign, numbered PD46 here, has to be added on account of its attachment to PD08 in undamaged analogies on the other side (B18, etc.); A8, where the contours of PD07 still seem visible; and B8, where gain PD46 is probably to be added because of its attachment to PD18 in a very similar context on side A (A1). In addition, the comparison with the text on the fragmentarily preserved discus of Vladikavkaz resulted in the identification of what at first sight seemed an incidental scratch at the lower side of the second sign in A3 as a separate sign, to be more exact the determinative of personal names, and hence to be numbered PD47.<sup>5</sup> For the rest the critical edition of the text by Duhoux is followed here.<sup>6</sup>

Among the repertory of signs there can be distinguished in total 47 individual signs. As to their possible relationship to other known scripts, Duhoux has drawn attention to the fact that a number of signs is paralleled for the inscription on the double axe from Arkalokhori (# 332). This entails the “feathered head”, which corresponds to PD02 and the “thorn” attached to it, which cannot be dissociated from PD46. To these correspondences might be added the one of the “feathered head” en face to the “larger head” on the discus, PD03, and perhaps two more signs, though the 3 instances given suffice to underline Duhoux’s main point, namely that the script on the discus of Phaistos is indigenous on Crete.<sup>7</sup> Such a view may receive further

<sup>4</sup> Best in Achterberg e.a. 2004: 27-32.

<sup>5</sup> Achterberg e.a. 2004: 10; 139.

<sup>6</sup> Duhoux 1977: 44.

<sup>7</sup> See section I.9 above.

confirmation from the fact that two signs of the inscription on the altar stone from Malia (# 328), *in casu* nos. 2 and 9 according to the original numbering by Chapouthier, show a striking relationship in form to PD03 and PD24, respectively, of the discus.<sup>8</sup> But all of this is peanuts if we realize that, as visualized in Fig. 25 above, at least 18 signs from the discus have a related form among the signary of Cretan hieroglyphic!

Other scholars, however, have sought to connect the writing on the discus with known scripts from outside Crete, and especially with the Anatolian branch of hieroglyphic writing, the so-called Luwian hieroglyphic. Of these scholars, Helmut Bossert noticed already during his work in the deciphering process of this particular script amongst others the correspondence of PD46 to the characteristic “thorn” in Luwian hieroglyphic, LH \*383, 2 +*r(a/i)*,<sup>9</sup> which, as we will argue below, in the Cretan context expresses its original pre-rhotacized value +*ti*.<sup>10</sup> More recently, an outstanding scholar in the field, Piero Meriggi, proposed to connect PD12 from the discus with the Luwian hieroglyphic sign for “bread”, LH \*181, representing the logographic value *TURPI* and, according to the acrophonic principle, syllabic value *tu*<sub>6</sub>.<sup>11</sup> But the relationship between the two scripts was demonstrated most convincingly by the specialist in Linear A, Jan Best. He was the first who successfully placed the identifications mentioned above and the identification of for example PD02 with LH \*19 *á*, also used almost exclusively in first position, within a framework of internal evidence provided by prefixed and suffixed doublets and triplets and a vowel-analysis based on the Cretan Linear practice of their application exclusively in front position.<sup>12</sup> In this way, then, the alternating signs PD12, PD35, and PD46 could be *predicted* to represent syllabic values of the same consonant with alternating vowels, as is indeed confirmed by the identity of two of them to LH \*383, 2 with original pre-rhotacized value +*ti* and LH \*181 with, according to the acrophonic principle, syllabic value *tu*<sub>6</sub>

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<sup>8</sup> See section I.8 above.

<sup>9</sup> Bossert 1932: 14-15; cf. 61, note 1 for the corresponding signs of PD14, 16, 26, 30, 32, and 45.

<sup>10</sup> Note that in the legend of the stamp seal from Beycesultan, dated *c.* 2000 BC, the “thorn” LH \*382, 2 already renders the rhotacized value +*r(a/i)*.

<sup>11</sup> Meriggi 1974b: 218.

<sup>12</sup> Best & Woudhuizen 1988: 30-53.

(see Fig. 53). Similarly, PD02 could be *predicted* to represent the most frequent vowel, as is indeed confirmed by its identity to LH \*19 *á*. Soon after this break-through, Best managed to find Luwian hieroglyphic counterparts for other signs of the discus as well, which approach, when applied to the full, leads to a total number of 32 correspondences (see Fig. 25), whereas the remaining 15 signs cannot positively be connected with the repertory of Luwian hieroglyphic according to the present state of our knowledge.

As it seems, then, both views on the relationship of the writing on the discus of Phaistos, the indigenous thesis of Duhoux and the foreign antithesis of Bossert, Meriggi, and Best, have some truth in them. The script of the discus is indeed related to that of the double axe of Arkalokhori and the altar stone from Malia, and with Cretan hieroglyphic more in general. On the other hand, as we have shown in section I.1.2 above, among the signary of Cretan hieroglyphic we can trace as much as 85 signs which are related in form to a Luwian hieroglyphic counterpart (see Fig. 25). It cannot be denied, of course, that, just like in case with the signary of the discus, part of the Cretan hieroglyphic signary is not related to Luwian hieroglyphic, but either originates from Egyptian hieroglyphic (see Fig. 26) or can be linked up with a counterpart in Linear A (see Fig. 27). It is relevant in this connection to note that in the case of the discus an ultimate Egyptian origin can be attributed to the “supporting pole” D19 *sa*<sub>1</sub> and D22 *i*, which like Linear A L100a *i* constitutes a stylized offshoot of the depiction of a walking official with a stick in his hand (see further section II.2 below). Accordingly, then, the script on the discus and Cretan hieroglyphic more in general are to be defined as *Luwianizing*, which means basically related to Luwian hieroglyphic but not identical with it because of the number of signs unparalleled in it which are either of a different origin or the result of typical Cretan developments or both.

If we turn to the contents of the text, it must be admitted that the attempts at its interpretation by Jan Best and myself in *Ancient Scripts from Crete and Cyprus* of 1988 and *Lost Languages from the Mediterranean* of 1989 were unsatisfactory for the lack of agreement between the two authors on some vital issues. In short, Best defended the view that the document contains an abstract of the correspondence between two dignitaries, giving an outgoing letter addressed to great king Nestor in Akhaia on the front side and an incoming letter in reply

on the back side. This view seemed to harmonize very well with the marked differences in style between the texts on both sides of the discus. However, identification of the sender of the letter on the front side and recipient of the one on the back side turned out to be very problematic, suggestions ranging from a certain †Xouthos, named on the front side according to a reading soon discarded afterwards, to Kunawa, the king of Phaistos, on behalf of his superior Idomeneus, both mentioned on the back side only.<sup>13</sup> Against this view, I myself considered the document a coherent entity running on over both sides of the discus, in which great (king) Nestor of Akhaia settles a territorial dispute concerning Rhytion in the hinterland of Phaistos between rivaling groups among his Cretan vassal kings. Here, too, a problem was posed by the identification of the second party involved, in this case the person to whom the letter or decree is addressed. As a solution to this problem it was proposed to take the combination of the symbols of lightning (PD39) and winged sun-disc (PD11) at the end of the introductory section on side A for a Luwian personal name, †Tarkhuntiwas, which appeared to square with subsidiary information about the residence of the addressee, seemingly situated in the contiguous inland regions of the Lasithi upland plain and the eastern part of the Mesara.<sup>14</sup>

In order to bring about some changes for the better in this unsatisfactory *status quo*, the authors agreed to scrutinize thoroughly both hypotheses, disregarding their personal attachment to one of them, not for the sake of compromise, but in an attempt to determine the underlying cause for the discrepancies in interpretation. If this cause could be localized, a coherent translation of the entire text, acceptable to both authors, might very well be within reach, as they had already agreed on the basic correctness of the values of the signs as determined by Best during the process of breaking the code and had shown an equally flexible attitude toward each other's propositions on minor points of disagreement, provided that these were substantiated by evidence superior to that in support of the alternatives.<sup>15</sup> In the following pages, then, the two interpretations

<sup>13</sup> Best & Woudhuizen 1988: 50 f.; Best & Woudhuizen 1989: 65 ff.

<sup>14</sup> Best & Woudhuizen 1988: 65 ff.; Best & Woudhuizen 1989: 72 ff.

<sup>15</sup> Note that Best prefers the value *ra* for PD31 in his second contribution (Best & Woudhuizen 1989: 69) as established by me on the basis of the correct Luwian hieroglyphic parallel, LH \*130-133 (Best & Woudhuizen 1988: 67). Conversely, I accepted Best's identification of the geographic name *sa<sub>3</sub>-hár-wa<sub>10</sub>* as Homeric Skheria in my second contribution (Best & Woudhuizen 1989: 88).

will be reduced to their essentials and new opportunities for a synthesis generated by this approach will be presented.

Starting with the interpretation first mentioned, it appears that Best had taken the doublets and triplets, which enabled him to break the code of the syllabary in the first place, as a natural starting point for his attack on the text. This means that according to his opinion the alternating final signs in recurring combinations, representing syllables of the type  $C_1V_{1-3}$ , are an epigraphical reflection of linguistic phenomena like case endings and verbal inflection (see Fig. 53). As a consequence, combinations ending in *-u* are likely to render the nominative singular, combinations ending in *-a* the accusative singular and combinations in *-i* the dative singular of the same root:

	doublet	triplets	
nominative	$pa_5-ya_1-tu_6$	$ná-sa_2-tu_6$	$ra-sú-tu_6$
accusative	$pa_5-ya_1-ta$	$ná-sa_2-ta$	$ra-sú-ta$
dative		$ná-sa_2+ti$	$ra-sú+ti$

Table IX. Inflectional system of the noun.

This reasoning, then, forms the underlying motive for Best's interpretation of the combination  $ná-sa_2+ti$  in the heading of the text on side A as "to Nestor" and his inference that the text on this side of the discus is addressed to the person tentatively identified as the Homeric king Nestor of Pylos in the western Peloponnesos. Other propositions, like the assumption that the back side contains Nestor's reply to the letter on the front side and that the king of Phaistos, Kunawa, is the sender of the first letter and addressee of the second one, are secondary and therefore belong to the realm of "inferences based on inferences", which, of course, are much less compelling.

The second interpretation takes an altogether different starting point. It departs from a structural analysis of the entire text, centred on the preposition  $á-tu_6$  "in", ruling the text on side A where it occurs 12 times against once (immediately at the beginning) on side B, and the genitive particle  $sa_2$  "of", which dominates the text on side B with 7 occurrences in sum (see Table XII). From this analysis it could, at least in my view, be deduced that especially the preposition  $á-tu_6$  "in", but to a lesser extent also the genitive particle  $sa_2$  "of", are associated with easily recognizable geographic names and that therefore both sides of the discus are concerned with the enumeration of names of places and regions situated in Crete (the ones on the

back side already having been recognized by and large by Best). This deduction did pay off in the form of the geographic names *ra-sú-tu*<sub>5</sub> “Lasithi” and *ri-ti*<sub>1</sub>-*na* “Rhytion”, first identified by me. But as these geographical enumerations on both sides of the discus appear to be complementary to each other and do not show any overlap, it also provides a weighty argument in favor of the running nature of the text as a whole (in case of a correspondence we would have expected the recurrence of basically the same body of geographic names, but see Table X):

	region	town
side A	I. <i>ra-sú-tu</i> <sub>6</sub>	1. <i>ku-na-sa</i> <sub>3</sub>
	II. <i>mi</i> <sub>1</sub> - <i>SARU</i>	2. <i>wa</i> <sub>8</sub> - <i>tí</i> <sub>1</sub>
<hr/>		1. <i>sa</i> <sub>3</sub> - <i>hár-wa</i> <sub>10</sub>
side B	II. <i>mi</i> <sub>1</sub> - <i>SARU</i>	2. <i>pa</i> <sub>5</sub> - <i>yá-tu</i> <sub>6</sub>
		3. <i>ú-pa</i> <sub>5</sub> <i>pa</i> <sub>5</sub> - <i>yá-ta</i>
		4. <i>ri-ti</i> <sub>1</sub> - <i>na</i>

Table X. Sequence of geographical names.

On the other hand, it must be admitted that the subordinate role attributed to the alternating endings in the doublets and triplets, which ultimately formed the prerequisite for my identification of great (king) Nestor as the sender of the letter or decree, is of secondary nature and for this reason likewise belongs to the realm of extremely hypothetical superstructures. Not to speak of the alleged addressee, †Tarkhuniwatas, which supposition is not supported by linguistic evidence in the form of a clearly marked dative singular ending.

The two interpretations having been reduced to their nuclei in this manner at once appear to be less incompatible than they seemed to be at first sight. In fact, I had already accepted in my second contribution Best’s axiom that the alternating final syllables are indicative of case endings or verbal conjugation in one instance, namely in connection with the variant forms of the verb “to be”, reading *sa*<sub>6</sub>+*ti* in the 3rd person singular of the present tense (A1 and probably also B8) but *sa*<sub>6</sub>-*ta* in the 3rd person singular of the past

tense (B23).<sup>16</sup> Similarly, Best, in his second contribution, had already met my axiom about the distribution of the geographical names in an equally halfhearted way by accepting the identifications of Lasithi and Rhytion.<sup>17</sup> This being the actual state of affairs, it naturally seems to follow that the evidence for alternating endings in the doublets and triplets, which has proved its value in the process of breaking the code, should prevail over secondary inferences from the structural analysis of the text and, *mutatis mutandis*, that the evidence for the complementary nature of the geographical enumerations on both sides of the discus should prevail over secondary inferences from the observed grammatical features. In other words: the text is a coherent entity (my axiom) addressed to the Akhaian dignitary provisionally identified as Homeros' Nestor (Best's axiom).

This conclusion, being acceptable to both authors, is not without harsh repercussions, however. In the first place, the doublets and triplets bear testimony only of the primary vowels *a*, *i*, and *u*. This observation is, moreover, in conformity with the vowel-analysis based on the Cretan Linear practice of their exclusive use in first position, which applies to three signs only, PD02 *á*, PD22 *i*, and PD29 *ú*. As a consequence, all attempts to distinguish a separate *e*-series among the repertory of signs are futile.<sup>18</sup> Next, the three times repeated combination *á-tu<sub>6</sub> ra-sú+ti* "in the Lasithi" (A16, 19, and 22) definitely proves that the preposition in question rules the dative case instead of the accusative. But fortunately the latter remark is fully in accordance with comparative data presented by its Luwian hieroglyphic equivalent *à-ta*, etc. "in", which likewise rules the dative.<sup>19</sup> Still it must be admitted that the inflectional system of the noun is not applied without apparent deficiencies. Thus, a word like the geographic name *mi<sub>1</sub>-SARU* "Mesara", which is written with a logogram as final sign, in effect functions as an indeclinable, occurring unmarked for nominative (B7), accusative (B8) and dative (A1, 26) alike. Similarly, in the

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<sup>16</sup> Mark also the variant writing *as+ti* for the form *sa<sub>6</sub>+ti* in B6. The consequences of the use of the past tense in B23 are discussed later on. Cf. Best & Woudhuizen 1989: 93.

<sup>17</sup> Best & Woudhuizen 1989: 69; for a seal from Rhytion with this TN, see Fig. 44 in section I.6 above.

<sup>18</sup> Contra Best in Best & Woudhuizen 1989: 65-66.

<sup>19</sup> Contra Woudhuizen in Best & Woudhuizen 1989: 89-90; see Woudhuizen 2011a: 386.

light of the parallel offered by *wa<sub>8</sub>-ti<sub>1</sub>*, which follows upon a subordinate relative clause but nonetheless appears to be dependent on the preposition *á-tu<sub>6</sub>* “in” for its being in the dative (so “in the town”), we perhaps should have expected the dative form *ra-sú+ti* instead of the actual form *ra-sú-tu<sub>6</sub>* (nominative) in A25. And finally, it remains valid that the alternating forms *ná-sa<sub>2</sub>-tu<sub>6</sub>* and *ná-sa<sub>2</sub>-ta* in A6 and B2, respectively, for their exactly identical position directly following the relative *ku* “what” are likely to be both in the nominative and that therefore we are not dealing with an instance of declension in this particular case, but merely with graphic variants characterized by *a/u*-vowel shift indicative of the vowel [o], which is not represented by a separate set of signs in the syllabary.<sup>20</sup> As it seems, then, the inflexional system of the Indo-European language in question is only rudimentarily expressed in writing—a situation, by the way, which is not incomparable to the one in Hittite cuneiform letters from about the same chronological horizon as to which the discus belongs like, for example, the so-called Indictment of Madduwattas.

Now that two fundamental problems have been satisfactorily dealt with, there remains one question of considerable importance, which cries for an answer, namely: who is the sender of the letter? Here, as we have seen in the introductory notes, both authors have utterly failed to develop reliable hypotheses. Nevertheless, it is noteworthy that independently their attention has been drawn to the closing phrase of the introductory paragraphs on both sides of the discus, which are characterized by the same Luwian verbal form *tiwati* “he goes” in two distinct graphic variants, in order to find an indication of the item looked for. But no definite personal name seemed to turn up. In fact, however, precisely the hopelessness of the case for the sender of the letter forms the first reliable indication for his identification. This paradox will not surprise scholars in Near Eastern linguistics as much as others, because they are acquainted with the headings of the international correspondence from the so-called El Amarna period, dating from the end of the reign of Amenhotep III (1390-1352 BC) to the beginning of the reign of Tutankhamon (1335-1325 BC), *i.e.* mainly during the reign of the founder of Akhetaten (= the ancient Egyptian name of present-day El Amarna) as the capital of Egypt, Akhenaten (1352-1336 BC), to which chronological horizon the discus of Phaistos, as we have noted

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<sup>20</sup> Best & Woudhuizen 1989: 66 (Best); 82 (Woudhuizen). Note that the omission of the root-final [r] from the spelling is exactly paralleled for the Greek name *Alexandros* in Hittite cuneiform, where it appears as *Alakšanduš*.

before, can be assigned.<sup>21</sup> These headings just follow standard regulations and there is therefore little room for variation. So in case a lower functionary sends a message to his superior, the addressed person is named first and the sender of the letter humbly puts himself with name and rank explicitly indicated in second place. A superior official, on the other hand, writing to one of his deputies can do as he pleases: he either puts himself in first or in second position. But in the case of the pharaoh or great king himself, he is always placed in second position without specification of his personal name: *as there is only one his title will suffice!*<sup>22</sup> That a similar situation as the one last mentioned *a priori* might be paralleled in the longer heading on side A of the discus of Phaistos seems by no means excluded in the light of the still valid observation that the 1st person singular in the text is associated with the largest territorial property in the relative clause A23-24 because of the partitive genitive in *-sa<sub>1</sub>* of the form ***anulusa<sub>1</sub>*** “part of the realm”, and for this reason must be considered a superior of the addressee, Nestor in Akhaia. Downright proof for this particular option, however, is afforded by the final sign of the *tiwati*-phrase on the front side of the discus, the winged sun-disc (PD11 [see Fig. 3]). Up till now this has been wrongly taken by both authors as the symbol of the solar deity, thus leading to its interpretation as part of an oath-formula or onomastic element based on the Luwian form of address of the sun-god, *Tiwata*.<sup>23</sup> But the symbol for this deity in Luwian hieroglyphic (LH \*191) depicts, as Emmanuel Laroche has cogently demonstrated, three pairs of eyes in a row, whereas in the related Cretan hieroglyphic it appears in simplified form as one eye (E5 or CHIC005) for the syllabic value *ti<sub>6</sub>* regularly derived from logographic *TIWATA* according to the acrophonic principle.<sup>24</sup> In fact, Laroche is absolutely clear in his discussion of the Luwian hieroglyphic equivalent of PD11, LH \*190, namely that in reality it designates the standard titular expression for great kings in Late Bronze Age documents, viz. “his majesty”, as can be substantiated by its semantic identity to Hittite cuneiform <sup>d</sup>UTU<sup>si</sup> (literally: “his sun”) and its ultimate origin in Egyptian hieroglyphic

<sup>21</sup> For the Akhenaten-style of the “feathered head” PD02, with characteristic bulbous skull, see Best & Woudhuizen 1989: 137-138.

<sup>22</sup> Mercer 1939: EA 31a and EA 162; Rainey 1978: EA 367 and EA 370; for the Amarna letters, see now Moran 1992.

<sup>23</sup> Best & Woudhuizen 1988: 50-51, Best & Woudhuizen 1989: 68; Best & Woudhuizen 1988: 72, Best & Woudhuizen 1989: 95.

<sup>24</sup> Laroche 1983: 310-312 “trois paires d’yeux”.

writing.<sup>25</sup> Being confronted in this manner with the fact that the sender apparently considers himself as one of the “happy few” among the Near Eastern dynasts who can claim the title “great king”, the next mistaken interpretation immediately pops up. Both authors, namely, have ventilated the opinion that the titular expression *ura-* “great” attributed to the addressee in the second phrase from the longer heading on side A must be taken as an abbreviation of “great king” on account of the frequent combination of LH \*363 *URA* with the royal symbol LH \*17 *ḪANTAWAT*. But the sign first mentioned is just as well applied as a component in honorific titles of lower rank, and all by itself, as it is found in the text of the discus, the Luwian adjective *ura-* “great” is little informative about the exact nature of the function intended.<sup>26</sup> The most that can be said about it is that it probably corresponds to Hittite cuneiform LUGAL “king” (literally: “great man”), as determinatives comparable to cuneiform LÚ “man”, URU “town”, and KUR “land”, regular for Hittite and Akkadian, are omitted from the spelling in the writing on the discus. If this is correct, the addressee Nestor in Akhaia is certainly inferior in rank to the otherwise unspecified sender.

Of course, the case for the sender, as presented above, cannot be considered definitely settled before the entire introductory phrase with the verb *tiwati* has received a convincing interpretation. This is an intricate matter, because we do not possess comparable evidence of similar standard expressions in the indigenous language in, for example, Hittite letters, which customarily use Akkadian cuneiform substitutes in this respect. Taking the example set by cuneiform letters as our starting point, what we reasonably should expect at the end of an introductory paragraph and before the actual contents is a kind of greeting- or wish-formula. In correspondence in the Hittite language this formula is singled out by the word *aššuli* “hail” (in fact an adjectival formation of Hittite *ašsu-* “good” most adequately translated in German as “zum Heile”), perhaps modelled on Akkadian *šul-mu* (cf. Hebrew *shalôm*) of similar meaning. Particularly interesting in this connection is the fact that such a formula can be repeated or rephrased later on in the letter, as evidence for the correspondence between Amenhotep III (1390-1352 BC) and the Arzawan king Tarkhun(d)aradus early in the 14th century BC, where

<sup>25</sup> Laroche 1960: discussion of LH \*190 and cf. remarks on p. 255.

<sup>26</sup> For honorific titles with *ura-* of lower rank, cf. the ones given by Laroche 1965: 35. In his own Cretan hieroglyphic seal # 295, Nestor is only *pínipíti*, “prince” of the Mesara, see Fig. 29 above.

before an enumeration of expensive presents sent with the messenger in its final part the expression *aššuli* appears as a kind of “with the compliments”.<sup>27</sup> As noted before, namely, a closely comparable repetition is witnessed for the *tiwati*-phrase on the back side of the discus.

But also from another corner of incidence we should reasonably expect that the phrase with the winged sun-disc (PD11) contains a wish-formula. It has already been noted previously that this particular sign originates from Egyptian hieroglyphic. Here the sign is used in monuments of the 18th dynasty like, for example, the poetic stele of Tuthmosis III (1479-1425 BC).<sup>28</sup> On this particular stele the winged sun-disc is placed above a scene in which the pharaoh brings offerings to his protective deity Amon. The symbol itself shows two uraei, hanging down on either side of the sun, to which *ankh*-signs are attached, the symbol of life. In between the space thus created directly under the wings a standard formula is written: *dī ‘nh* “granted life” (again with the *ankh*-sign), clearly a kind of wish-formula. The same symbolism has its reflections in Luwian hieroglyphic documents already from the Middle Bronze Age onwards. As we have seen in section I.1.1 above, the earliest seals or sealings from the Kültepe-Kanesh period (c. 1920-1750 BC) are characterized by the exact Luwian equivalent of Egyptian *dī ‘nh*, *PIA vita*, whereas from the time of Tell Atchana-Alalakh VII (c. 1720-1650 BC) this is replaced by the combination of LH \*369 *vita* (= the Anatolian variant of the Egyptian *ankh*-sign) with LH \*370 *ASU* (see Table II above). Now, this latter Anatolian variant of the wish-formula also appears with an additional element in the form of a rosette, LH \*189 *wASU*, as in case of the earliest Tabarna-seal, dating from before c. 1500 BC.<sup>29</sup> At the beginning of the Hittite Empire period, if dated from the reign of Suppiluliumas I (1350-1322 BC) onwards, the use of this wish-formula tends to become obsolete and only to be maintained in the cuneiform legend of the outer ring of the seals, but it becomes subject of a comeback in the final stage of this period on the seals of Tudkhaliyas IV and Arnuwandas III whereas it also is present on seals of contemporary lower officials stationed in more westerly quarters of the Anatolian peninsula.<sup>30</sup> What the seal-

<sup>27</sup> Moran 1992: EA 31, line 28. Cf. Friedrich 1974: 122; Rost 1956: 350.

<sup>28</sup> Lacau 1909: no. 34010 Kamak, Pl. VII; Sethe 1961: IV 610-611.

<sup>29</sup> Beran 1967: 31; Taf. IV (no. 143).

<sup>30</sup> The sign LH \*369 *vita* still sign features on a sealing of Suppiluliumas I antedating his promotion to great king, see Beran 1957: 44-45; 57; Abb. 29, no. 8.

ings of the Hittite Empire period can still positively contribute to our present examination is the intimate relationship between the great king and his protective deity. This relationship is clearly illustrated on a sealing of great king Muwatallis II (1290-1272 BC). In the centre of this sealing we see the god striding to the right with his right arm around the neck of a figure rendered in smaller dimensions, who according to the hieroglyphic legend to the left of the central scene can be identified as *URA+ḪANTAWAT m+UWA-ta-li* “great king Muwatallis”. This intimate relationship between the king and his protective deity is further stressed by the hieroglyphic legend to the right of the central scene, where just below the protruding left arm of the god the sequence “winged sun-disc—symbol of lightning—great king (3x)” is depicted in columnar arrangement.<sup>31</sup>

The previous excursus on contemporary Near Eastern wish-formulas gives us an impression of the world of ideas, or the ideology, propagated by writing in official documents. It shows us that the king or great king is staged as the representative of the supreme deity, who in turn renders divine protection to the (great) king. Through the medium of the (great) king, then, divine qualities like life, health, and prosperity are bestowed on the people, *in casu* his subjects. Returning next to the *tiwati*-phrases on the discus, supposedly containing a greeting- or wish-formula in the light of the parallels, it remains to be investigated whether these vital notions can help us any further in clarifying them. A first positive indication that this is actually the case seems to be provided by the fact that the sign of the winged sun-disc (PD11) is immediately preceded by the symbol of lightning (PD39) in the phrase on the front side of the discus. This sign, which has puzzled the authors for a long time as they expected either divine or human indications and no mixture of the two categories as subject of the verbal form, now turns into a weighty argument in favor of the basic correctness of the present identification of winged sun-disc “his majesty” as the sender of the letter, *because the great king may reasonably be expected to occur in close association with his protective deity according to the ideology of Luwian hieroglyphic disc seals!* What we are next looking for, after

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For LH \*370 *ASU* and LH \*369 *vita* in the sealings of Tudkhaliyas IV (1239-1209 BC) and Arnuwandas III (1209-1205 BC), see Boehmer & Güterbock 1987: 80, Abb. 56 and cf. our Fig. 73b. For the sealings of a lower functionary stationed in western Anatolia dating from the final stage of the Bronze Age, *i.e.* the vassal king of Mira, *Tarku(ntimu)was*, still bearing the testimony of \*369 *vita*, see Güterbock 1975: 51-53, nos. 6-7.

<sup>31</sup> Beran 1967: 45; Taf. XII (no. 250a).

this initial encouragement, is possible counterparts of the components of the wish-formula in the form of words or symbols expressing the notion “life” or “health”, or the like. Now, the case for such a notion seems most transparent in the introductory phrase on the back side of the discus, at least if we are allowed to compare the combination *i-na-ku* immediately following the verbal form *tiwati* to Egyptian *‘nh* “life”.<sup>32</sup> That the presence of Egyptianisms in the text is by no means as inconceivable as it may look at first sight can be illustrated by once more drawing attention to the Akhenaten-style of the “feathered head” PD02, having already rendered excellent services as a criterion for dating the text of the discus in terms of absolute chronology (cf. note 20 above). Somewhat more complicated, on the other hand, is the task of finding a corresponding form in the phrase on the front side of the discus. Yet in an earlier contribution I had already drawn attention to the fact that the sun between wings of sign PD11 is not drawn as a simple semicircle, but embellished with flower leaves (see Fig. 3a) in such a manner that it strikingly recalls the rosette sign of Luwian hieroglyphic, LH \*189 *WASU*, which, as we noted previously, is used as an additional third element in the Anatolian variant of the wish-formula as attested from the period of Tell Atchana-Alalakh VII (c. 1720-1650 BC) onwards. Is it allowed on the basis of this observation to consider the “winged rosette” a ligature of the winged sun-disc with rosette, in other words: *a combination of a titular expression referring to the great king with one of the divine qualities like life, health, and prosperity bestowed on the people by exactly this very same king according to the ideology of Luwian hieroglyphic disc seals?* Certainty is hard to attain in this matter, and even though there is a cumulative aspect in the argument concerning the identification of the combination *i-na-ku* from the text on the back side and the solar symbol disguised as rosette from the text on the front side, we cannot yet be really sure about the solution presented. But what, then, about the fact that the rosette sign is represented in the syllabary of the text on the discus (PD38) for the expression of the syllabic value *wa<sub>10</sub>*, regularly derived from the logographic value *WASU* according to the acrophonic principle, that is to say: from the Luwian equivalent of Hittite *aššu-* “good”? And that, of all signs, exactly this one appears precisely in the middle of the text on side A, as is often the case with its Luwian hieroglyphic

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<sup>32</sup> Note that the name of the pharaoh *Akhenaten* < *‘nh* “life” + GN *Aten* is sometimes transliterated as *Ikhnaton*.

counterpart on Anatolian disc seals?<sup>33</sup> Is all this to be considered merely coincidental?

Let us approach the matter from yet another angle. In *Anatolian Studies* 19 (1969) 103 ff., John David Hawkins treats a number of phrases in Luwian hieroglyphic inscriptions stemming from the Early Iron Age period which are characterized by the combination of the adverb *wasu* “good” and various forms of the verb *tiwa-* “to go”. In some instances the gods in general or one god in particular are/is subject of the verb, in other instances the superior of the official responsible for the dedication of the monument is subject of the verb. This combination of *tiwa-* and *wasu*, then, is translated by Hawkins as: “(subject) stood favorably” in case the verb is in the past tense and “may (subject) stand favorably” in case the verb is in the subjunctive mood. Hawkins’ translation, however, is tentative and the substitution of the verb *tiwa-* by an entirely different verb, *áwa-* “to come” (cf. cuneiform Luwian *awi-* of the same meaning), in one of the examples given by him rather seems to indicate an interpretation in the sense “to come, go (along) favorably” or “bring favor, hail”, or the like.<sup>34</sup> One may concentrate upon finding still more refined interpretations of this expression, what suffices for our present purposes is to notify that it provides a parallel for the verbal form *tiwati* in the introductory phrases from the text of the discus which meets our demands in identifying these phrases as greeting- or wish-formulas. As a consequence, our analysis of the combination *i-na-ku* and flower leaves attached to the sun-disc may be considered to have received substantial reinforcement, as the meaning “to go” for the verb *tiwa-* makes little sense in the present context and its meaning “to come” or “to bring” is valid in the relevant Luwian hieroglyphic parallels with the adverb *wasu*. In sum, then, all results attained in the previous discussion lead us to the interpretation of the sequence *ti<sub>1</sub>-wa<sub>10</sub>+ti TARḪU(NT) sol suus+WASU* from A12-13 as: “Tarkhunt, his majesty brings “hail””, and the corresponding one *TIWA+ti i-na-ku* from B3-4 as: “(subject) brings “life””, from which it appears that the two constituent elements of the Anatolian variant of

<sup>33</sup> Cf. the seal of Khuzziya II (early 15th century BC) as presented by Beran 1967: 32; Taf. IV (no. 147).

<sup>34</sup> Cf. the examples catalogued in Woudhuizen 2015a: 300 (*tiwa-* c. *wasu*).

the wish-formula, viz. “life” and “health”, are divide equally over the two introductory phrases on both sides of the discus.

This does not mean, however, that we have finished with the interpretation of the introductory phrases under discussion. As a matter of fact, the sequence  $\acute{a}-tu_6 -ti_5$  at the start of the one on the front side, which seemingly recurs in graphic variant  $\acute{a}-du -ti_1$  in the one on the back side, still needs elucidation. Contextual considerations do not make it very plausible that the first element that can be distinguished, the preposition  $\acute{a}-tu_6$  “in”, performs exactly the same function as, for example, in its frequent association with geographical names. This suggestion is further emphasized by the apparent correspondence of the element  $-ti_5$  attached to it to the dative of the enclitic pronoun of the 2nd person singular as present in the expression  $KATA+ti$  “under you” in B18, etc., where the value  $ti$  is rendered by the “thorn” PD46 for its use in combination final position. If correct, it evidently follows that as a type of formation the couple  $\acute{a}-tu_6 -ti_5$  is strikingly reminiscent of the expressions *katti-mi* and *tugga katta* (note that the latter example shows the stressed pronoun of the 2nd person singular) which are at the head of the greeting-formula in Hittite cuneiform letters.<sup>35</sup> These expressions form an “eigentümliche Konstruktion” of prepositions in combination with personal pronouns in Hittite, from which Hittite *anda(n)* is expressly excluded by the specialists for its adverbial origin.<sup>36</sup> In the light of the present example from the text on the discus, however, one wonders whether the same applies to the Luwian equivalent of the adverb as well, because it is difficult to imagine an interpretation of the sequence  $\acute{a}-tu_6 -ti_5$  in A 12 otherwise than “to you brings”.

This having been established, it next remains to be investigated whether the sequence  $\acute{a}-du -ti_1$  at the beginning of the corresponding phrase on the back side truly presents a mere graphic variant of the expression just treated. If so, one is bound to answer the question why the scribe substituted PD12  $tu_6$  by PD37  $du$  in a word (viz. the preposition  $\acute{a}-tu_6$ ) which he had already written down 13 (!) times in one and the same manner. Against this backdrop, then, it seems more likely that  $\acute{a}-du$  is not a variant of the preposition  $\acute{a}-tu_6$  “in”, but an entirely different word, the meaning of which may well be retrieved

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<sup>35</sup> Rost 1956: 350.

<sup>36</sup> Friedrich 1974: 133-134; HW 2 (1977), s.v.

by its correspondence to Linear A divine name *a-du* “Haddu” as attested for the Hagia Triada texts.<sup>37</sup> This particular solution is an attractive one in view of the fact that Haddu is the weather- or storm-god par excellence of Semitic population groups in the Syro-Palestinian coastal region and therefore forms an exact equivalent of Anatolian *Tarḫu(nt)*, staged, as we have seen, in the parallel phrase on the front side as the protective deity of “his majesty”, the sender of the letter or decree. According to this line of reasoning, then, Haddu may well perform exactly the same function in the introductory phrase on the back side, thus expressing “his majesty”’s supreme power over the region of Phaistos in Crete according to the ideology of the Luwian hieroglyphic disc seals.<sup>38</sup>

Now that we have reached a cogent interpretation of the introductory phrases, primarily on the basis of contemporaneous data relevant to the subject, and in this manner assured the given analysis of the sender to a reasonable degree of certainty, the question arises whether there are any indications as to the identity of the great king who initiated the text on the discus. This problem is by no means as hopeless as it might seem at first sight, because there are not more than a handful of Near Eastern (and, early in the 13th century BC, also Mycenaean Greek) dynasts who may reasonably be assumed to exercise a claim on the title in question. During the El Amarna period they comprise the Egyptian pharaoh and the kings of Babylon and Mitanni. In the final years of Amenhotep III (1390-1352 BC) the Arzawan kingdom in southwest Asia Minor reaches its zenith under the leadership of Tarkhun(d)aradus and, for the (intended) marriage of the latter’s daughter to the pharaoh, this country may be very well assumed to have laid an at least temporary claim on the title. Before and afterwards, the Hittites in central Anatolia certainly do so (as we have noted above) at the end of the Middle Hittite period and from the beginning of the Empire period onwards. Of these possible candidates, the kings of Babylon and Mitanni can be eliminated for the intrinsic implausibility of (otherwise unrecorded) official relation-

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<sup>37</sup> Mulder 1980; see section II.1, discussion of HT 95, below.

<sup>38</sup> Note that *a-du* “Haddu” is the chief male deity at the sanctuary of Hagia Triada, dedicated to the Semitic triad Asherah, Tinita, and Haddu (see section II.9 below), and that Hagia Triada is the religious annex to the palace of Phaistos. In Near Eastern cuneiform texts both current forms of address for the storm-god, Haddu and Baal, are also used as titular expressions of the king, see Gressmann 1918: 207.

ships between their countries and Crete. With respect to Mycenaean Greece, it may be stressed that during the period in question it did not yet receive acknowledgement of a great kingdom: in the slightly later Hittite texts from the reigns of Tudkhaliyas II (1425-1390 BC) and Arnuwandas I (1400-1370 BC) there does feature a certain Attarissiyas (= Homeric Greek Atreus, king of Mycenae), but he is only “the man (LÚ) of Akhaia”. Egypt, on the other hand, can be shown to have maintained close relationships indeed with Crete and the Greek mainland, but one wonders why the Egyptian pharaoh would address an Akhaian ruler like king Nestor through the medium of a Cretan scribe in a form of Luwian hieroglyphic and invoke the Anatolian sky- and weather-god Tarkhu(nt) as his protective deity. The El Amarna letters make use of Akkadian cuneiform as a vehicle of international correspondence, in exceptional cases a letter in the Hittite language could be written, but, even if we are willing to make allowance for the by no means implausible scenario that the letter is translated or reworked by a Cretan scribe (see below), we certainly should have expected invocation of the Egyptian sun-god as a protective deity of the sender. By means of deduction, then, it seems that only the Anatolian candidates are to be considered.

At this point it seems worthwhile to draw attention to some hidden clues in the text of the discus itself. This text, namely, gives an enumeration of geographical names and specification of the functionaries responsible for administrative control in these places. For the Mesara this picture is worked out in detail in the text on side B and therefore it can be established with certainty that there is a linear relationship between the position of the functionary in the administrative hierarchy and the extent of the territorial dominions under his control. So a town like Phaistos and a predominantly rural district like the land behind Phaistos (now enlarged with the place Rhytion, located in the centre of the Mesara plain, according to the text) fall under the authority of a person designated as *SARU* “king”, corresponding to Semitic *šarru* of the same meaning. But a region in the order of the entire Mesara plain is placed under the supervision of a magistrate indicated by the sign of an axe (PD15), which corresponds to Luwian hieroglyphic \*283 *TUZI* designating a military commander (no doubt the be explained emended as LÚ *TUZI* “army man”) but for the sake of convenience is translated here as “great intendant” (cf. the parallel for a similar functionary in Late Bronze

Age Cyprus). At any rate, his superiority in rank over the various officials addressed as *SARU* “king” may be underlined by the fact that the person involved is called Idomeneus, who according to Greek literary tradition resided at Knossos and was the leader of the pan-Cretan fleet partaking in the Trojan war (Homer, *Iliad* II, 645-652: including the towns in the Mesara Phaistos, Gortyn, and Rhytion!). If we add to this information from the front side, it appears that a still larger territorial notion like Akhaia (= mainland Greece during the Late Bronze Age) is coupled with a third titular expression, *ura-* “great”, which, as we have noted before, for its vagueness is little distinctive. Fortunately, however, the text on the discus is absolutely clear about the fact that the person thus designated, viz. Nestor, king of Pylos according to Homer, is superior in rank to all other officials mentioned thus far, as his fief includes both the Lasithi and the Mesara plain in central Crete. To come to the point, the only exception to this well-ordered pattern of interrelationships between the various levels in administrative control and geographical extent is formed by the country name Assuwa, which in adjectival derivation is associated with the TN Phaistos, probably to stress the town’s formerly partaking in the so-called Assuwian league—a short-lived conglomeration of western Anatolian states headed by the royal house of Arzawa and rising to political note in the latter half of the 15th century BC.<sup>39</sup> It appears, namely, that this particular territorial notion is the only one which goes without corresponding title of befitting rank. This observation may, of course, be entirely insignificant, as the position of Phaistos itself is clearly determined in terms of the official hierarchical order. But I cannot help to bring to mind that the kingdom of Arzawa (one of our candidates for supplying the great king we are looking for) is in fact the successor of Assuwa as leading power in western Anatolia after the defeat of the

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<sup>39</sup> Note its mention in the form of ’Isy in the annals of the Egyptian pharaoh Tuthmosis III in direct association with Keftiu or Crete for the years 34 and 38-39, which means 1445 BC and 1441-1440 BC in terms of absolute chronology, see Achterberg e.a. 2004: 115. Note also that according to a later Hittite text (KUB 26.91), presumably dating from the reign of Muwatallis II (1290-1272 BC), the king of Assuwa is recorded to have held sway over islands, which he gave in loan to the ancestor *Katamu-* “Kadmos” (reading by Frank Starke) of the writer of the letter, presumably *Tawagalawas* “Eteokles” (both being successive kings of Thebes according to Greek literary tradition) on the occasion of his marriage to the daughter of the latter, cf. Woudhuizen 2009: 208-209 and Beckman e.a. 2011: 134-139.

aforementioned league against the Hittites during the reign of Tudkhaliyas II (1425-1390 BC), and that its royal house appears to descend in a direct line from the Assuwian monarchs.<sup>40</sup> In other words: the mention of Assuwa may very well be considered a hidden clue as to the identity of the sender of the letter on the discus, because Arzawa, as succeeding power in western Anatolia, conceivably had a direct interest in keeping up the memory of former territorial extension of the Assuwian league. As a consequence, the geographic notion Assuwa may tentatively be lined with the honorific title *sol suus* “his majesty” to fill the gap (see Table XI).

Geographic names	Titles	Personal names
1. <i>Aššuwa</i>	* <i>sol suus</i>	* <i>Tarḫu(nt)+Adu</i> (= <i>Tarḫun(d)aradus</i> )
2. <i>Ḫiyawa</i>	<i>u-ra</i>	Νέστωρ
3. <i>Mesara</i>	<i>TUZI</i>	Ἴδομενεύς
4. <i>Phaistos</i>	<i>SARU</i>	Γουνεύς (= Linear B <i>ku-ne-u</i> )
5. <i>u-pa Phaistos &amp; Rhytion</i>	<i>SARU</i>	<i>Uwas</i> (formerly <i>Aḫarkus</i> )

Table XI. Relationship between geographic names, titles, and personal names.

Yet another hidden clue to the identity of the sender may be discovered on the basis of the interpretation of the introductory phrase *á-du -ti, TIWA+ti i-na-ku* at the back side of the discus as “to you Haddu brings “life””. As we have observed in the course of their extensive treatment, the *tiwati*-phrases, equally divided over both sides of the discus, are permeated with the ideology of Luwian hieroglyphic disc seals. Now one of the features of these seals, not mentioned so far, is that personal names of the Hittite great kings from the Empire period are often rendered in abbreviation or even by an intricate symbolism. So the name Mursilis is indicated by the logogram LH \*225 *UMINA* “town” in combination with the “thorn” LH \*383, 2 *+r(ali)*, attached to it, and LH \*278 *li*, and therefore actually

<sup>40</sup> Reconstruction of the early Hittite New Kingdom period according to Freu 2007. The name of the defeated Assuwian king is Piyamakuruntas, which afterwards recurs for an Arzawan prince, namely the son of king Ukhkhazitis, a contemporary of Suppiluliumas I (1350-1322 BC) and Mursilis II (1322-1295 BC).

reads *Um+rali<-si>-li* with omission of one of the middle syllables for brevity's sake. Similarly, the name of Khattusilis III (1265-1239 BC) appears as a ligature of LH \*196 *há* and LH \*278 *li* on the sealings, according to which spelling the middle syllables *tu* and *si* are likewise omitted for brevity's sake (the same applies already for his Old Kingdom forerunner Khattusilis I, who ruled from 1650 to 1620 BC). The impact of symbolism is particularly strong in the rendering of the names Tudkhaliyas, being written as <sup>mons</sup>*TU* (LH \*207 with \*88), and Suppiuliumas, being rendered by the logograms for “pure” (LH \*322 *SUPI*) and “source” (LH \*215 *LULIA*) in combination with the syllable LH \*391 *m, má, mi*. Is it, in view of this procedure, far too speculative to assume that *with the divine names Tarkhu(nt) and A-du, invoked as protective deities of the great king in the introductory phrases on the front and the back side of the discus, respectively, reference is made to the Arzawan king Tarkhun(d)aradus with similar omission of the liquid in the middle for brevity's sake?*<sup>41</sup> Especially if we recall that the Anatolian variant of the wish-formula “life-health” is split up and divided over both introductory phrases in exactly the same manner?

As we have exhausted the available evidence on the subject, the case for the sender of the Luwian letter to Nestor needs to be closed here. But there are some more problems which call for our attention. In the first place, the difference in style between the text on the front side of the discus, dominated by the preposition *á-tu<sub>6</sub>* “in”, and the one on the back side, in which the genitive particle *sa<sub>2</sub>* “of” features most prominently, warrants a plausible explanation. As we have noted earlier, this distinction cannot be settled by assuming that the document consists of two separate letters, because this solution collides with the complementary nature of the geographical enumerations in both parts of the text. Moreover, it can be added that the part of the text dominated by *á-tu<sub>6</sub>* “in” includes the beginning of side B, whereas the genitive particle—apart from its emendation for A8—occurs from B8 onwards (see Table XII). Now, the preposition *á-tu<sub>6</sub>* is characterized by *al/u*-vowel shift as compared to the related form

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<sup>41</sup> Note that it does not necessarily follow from the present analysis that the MN *Tarkhun(d)aradus* actually is a compound of the GNs *Tarkhu(nt)* and *Haddu*; in actual fact, this theophoric name is a compound of the GN *Tarkhu(nt)* with *radu-* < PIE \**rot-h<sub>2</sub>-o* “wheel” and corresponding to Indo-Aryan *ratha-* “chariot”.

*á+ta*, etc., in Luwian hieroglyphic, which phenomenon can be identified as a typical feature of the Luwian dialect as evidenced for Minoan Crete. As a consequence, it may safely be inferred that the part of the text dominated by *á-tu*<sub>6</sub> is conducted in the Cretan dialectal variant of the Luwian language. A relevant question, therefore, is whether the same holds good for the part in which the genitive particle *sa*<sub>2</sub> is most prominent as well. As a matter of fact, the genitive particle *ša* is a typical feature of Hittite cuneiform texts, which it shares with Akkadian cuneiform, from which this element originates. It so happens, then, that expressions in which it is used can actually be fully comprehensible within an international frame. Compare, for example, the expression *TUZI sa*<sub>2</sub> *mi*<sub>1</sub>-*SARU* “great intendant of the Mesara” from B8 on the discus with that of <sup>14</sup>MAŠKIM.GAL *ša* <sup>kur</sup>*A-la-ši-a* “great intendant of (the (is)land) Alasiya (= Cyprus)” from an Akkadian cuneiform letter belonging to the royal archives at Ugarit (RS 20.18, line 2).<sup>42</sup> However, what is more important in the present context, the genitive particle *ša* is also attested for texts in cuneiform Luwian!<sup>43</sup> In addition to this, the absence of the determinatives which typifies the text on the discus is also paralleled for a cuneiform Luwian lay, which belongs to the so-called Istanuwan songs attributed to the up to *c.* 1500 BC Luwian population of Khapalla within the bend of the Sangarios river, of which the first line reads: *aḥḥa -ta -ta alati awienta Wiluṣati* “when they came from steep Wilusa” (KBo IV 11, 46), where the TN *Wiluša* (= Greek Ilion) goes unspecified by the determinative URU.<sup>44</sup> Against the backdrop of these observations, is it stretching the evidence if we suggest that the text of the Phaistos disk is a transcript in the local Luwianizing Cretan hieroglyphic script of a cuneiform letter? And that especially the section characterized by the genitive particle *sa*<sub>2</sub>, which follows on the particle *wa*<sub>8</sub> in B5 corresponding to the Luwian hieroglyphic particle *wa-* of direct speech, concerns a quotation from such a cuneiform Luwian letter? Leading questions,

<sup>42</sup> Woudhuizen 2006a: 50 or van Binsbergen & Woudhuizen 2011: 229 (transliteration by the Akkadist Frans Wiggermann); on Alasiya = Cyprus, see Goren e.a. 2003.

<sup>43</sup> Otten 1953: 59 (XXXV 54 Vs. II 40); 115 (75/k Vs?, l. 3); Laroche 1959: 155 (KUB XXXV 54 Vs. II 40: *ša EN SISKUR.SISKUR* “of the lord of sacrifices”); cf. Achterberg e.a. 2004: 112 with note 456.

<sup>44</sup> Watkins 1986: 58; Yakubovich 2010: 22; 125; cf. Achterberg e.a. 2004: 112.

indeed, which are not incompatible with the fact that the sender of the letter, Tarkhun(d)aradus, corresponded with his Egyptian colleague Amenhotep III in Hittite cuneiform and that certain Hittite ritual texts from the capital Boğazköy-Khattusa are the work of Arzawan practitioners (Melchert 2013). But most to the point is the fact that the Istanuwan songs actually bear the testimony of the Arzawan language.

## Side A

(a) preposition *á-tu<sub>6</sub>* “in” with geographic name

- |   |        |
|---|--------|
| 1. <i>á-tu<sub>6</sub> mi<sub>1</sub>-SARU</i>  | A1     |
| 2. <i>á-tu<sub>6</sub> mi<sub>1</sub>-SARU</i>  | A26    |
| 3. <i>á-tu<sub>6</sub> (ku-ku-ta<sup>DU</sup> <b>jugum+ aratrum</b>) mi<sub>1</sub>-SARU</i>  | A29-30 |
| 4. <i>á-tu<sub>6</sub> hì-ya<sub>1</sub>-wa<sub>8</sub></i>   | A5     |
| 5. <i>á-tu<sub>6</sub> ra-sú+ti</i>   | A16    |
| 6. <i>á-tu<sub>6</sub> ra-sú+ti</i>   | A19    |
| 7. <i>á-tu<sub>6</sub> ra-sú+ti</i>   | A22    |
| 8. <i>á-tu<sub>6</sub> (ku UTNA ti<sub>5</sub>-sa<sub>6</sub> ku mi<sub>4</sub>-sa<sub>6</sub> <b>anulus-sa<sub>1</sub></b>) ra-sú-tu<sub>6</sub></i> | A23-25 |
| 9. <i>á-tu<sub>6</sub> (ku-ku-ta<sup>DU</sup> <b>jugum+ aratrum</b>) wa<sub>8</sub>-ti<sub>1</sub></i>  | A17-18 |

(b) preposition *á-tu<sub>6</sub>* “in” with pronominal form in the genitive

- |   |     |
|---|-----|
| 10. <i>á-tu<sub>6</sub> mi<sub>4</sub>-sa<sub>6</sub></i>   | A8  |
| 11. <i>á-tu<sub>6</sub> ti<sub>2</sub>-sa<sub>1</sub></i>   | A10 |
| 12. <i>á-tu<sub>6</sub> i-ya<sub>1</sub>-sa<sub>2</sub></i> | B1  |

(c) preposition *á-tu<sub>6</sub>* “in” with D of the encl. pron. of the 2nd pers.

- |   |     |
|---|-----|
| 13. <i>á-tu<sub>6</sub> -ti<sub>5</sub></i> | A12 |
|---|-----|

## Side B

(a) genitive particle *sa<sub>2</sub>* “of” with geographic name

- |  |        |
|--|--------|
| 1. [ <i>sa<sub>2</sub></i> ] <i>ra-sú-ta</i>                                     | A8-9   |
| 2. <i>sa<sub>2</sub> mi<sub>1</sub>-SARU</i>                                     | B8     |
| 3. <i>sa<sub>2</sub> pa<sub>5</sub>-ya<sub>1</sub>-ta á-sú-wi-ya<sub>1</sub></i> | B10-11 |

(b) genitive particle *sa<sub>2</sub>* “of” with pronominal form in the genitive

- |  |     |
|--|-----|
| 4. <i>sa<sub>2</sub> ti<sub>1</sub>-sa<sub>6</sub></i> | B25 |
|--|-----|

(c) genitive particle *sa<sub>2</sub>* “of” otherwise

- |   |     |
|---|-----|
| 5. <i>sa<sub>2</sub> sa<sub>6</sub>-ta</i>                    | B23 |
| 6. <i>sa<sub>2</sub> ná-sa<sub>2</sub>+ti</i>                 | B24 |
| 7. <i>har<sub>1</sub>-ma-hà-sa<sub>6</sub> sa<sub>2</sub></i> | B27 |
| 8. <i>á-mi<sub>4</sub> ta-ti<sub>1</sub> sa<sub>2</sub></i>   | B28 |

Table XII. Structural analysis of the text on the discus of Phaistos.

If the text on the Phaistos disk is indeed a transcript in the local Luwianizing Cretan hieroglyphic script and in the local Cretan dialectal variant of Luwian of a cuneiform Luwian letter by the Arzawan great king Tarkhun(d)aradus, which, after the introductory particle of direct speech  $wa_8$ , confronts us with a direct quotation from this particular cuneiform letter, the Cretan scribe was no doubt induced to direct citation because of the prime importance attributed to this part of the message—as the sting is definitely in the tail.

However, we should remain careful and not lose sight to the fact that in the section suggested to be a citation there still can be traced a Cretan dialectal variant in the sequence  $ú-pa_5 pa_5-yá-ta$  “behind Phaistos” from B13, with the preposition  $upa$  “behind” corresponding to Luwian  $apa$  by means of the typical Cretan  $a/u$ -vowel shift, whereas in the section suggested to be a transcript in the Cretan dialectal variant of Luwian an instance of the genitive particle  $sa_2$  “of” is meaningfully restored (though, on the other hand, it seems to have been purposely wiped out).

As a kind of by-product of the present analysis, remaining problems concerning the identification of geographical names mentioned on the front side of the discus receive a positive clue for their being settled in a convenient manner. On the analogy of the heading on the back side being immediately followed by the introductory particle  $wa_8$  of direct speech, a similar situation may reasonably be expected for the heading on the front side. Realizing this, the vowel  $á$  which precedes the geographic name  $ku-na-sa_3$  can positively be identified as a separate element, corresponding in form as well as in function to the Luwian (hieroglyphic) introductory particle  $a-$ . In turn, this eventually enables us to identify the TN in question as an indigenous writing variant of Greek Linear B  $ko-no-so$  “Knossos”, which (if due attention is paid to the by now rather familiar procedure of substituting [a] for [u], and vice versa) is most closely paralleled by the form  $k_3-in-yw-š_3$  in Egyptian hieroglyphic as attested for the Aegean itinerary dating from the reign of Amenhotep III (1490-1452 BC) on a statue base from Kom el-Hetan, which is the aforesaid pharaoh’s mortuary temple at western Thebes.<sup>45</sup> As a result of the latter identification, it next becomes possible to interpret the geographic name  $wa_8-ti_1$ , enclosed between the identical repeti-

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<sup>45</sup> See Edel & Görg 2005.

tions of the phrase in which Knossos is mentioned, in accordance with its formal resemblance to the Greek loan word (F)ᾶστῦ “town”, as a dative singular in *-i* of the last mentioned word, obviously bearing reference in this manner to the Cretan capital Knossos itself. But note that these solutions are valid only if the geographic name Lasithi, in which both *ku-na-sa<sub>3</sub>* and *\*wa<sub>8</sub>-tu<sub>6</sub>* are situated, may be regarded as a regional indication of originally wider extensions than the upland plain to which it is confined according to present usage, i.e. including the northern coastal strip of central Crete. Another problem of geographical note is posed by the location of the TN *sa<sub>3</sub>-hár-wa<sub>10</sub>*, situated in the Mesara plain of southern central Crete according to the text on the discus. This has temptingly been identified by Best with Homeric Σκherία “Skheria”—the fairy tale-town of the mythical Alkinoos.<sup>46</sup> The story of Odysseus’ washing ashore after shipwreck, relating a rocky promontory in the immediate surroundings of the mouth of a river (Homeros, end of *Odyssey* V), is compatible only with geographical phenomena of the Mesara’s west coast in the form of Cape Lissos and the mouth of the river Lethaios. In effect, it means that, as long as we do not want to give up the equation *sa<sub>3</sub>-hár-wa<sub>10</sub>* = Skheria, the seafaring town of the Phaiakians<sup>47</sup> likely corresponds to the archaeological site of Hagia Triada and that the enumeration of towns in the Mesara plain in the text follows an entirely regular pattern, running in west-to-east direction from the mention of Skheria at the end of side A to that of Rhytion at the end of side B.<sup>48</sup> It is, finally, highly confirmatory for the validity of our identification of the geographic names in the text of the discus that corresponding or related forms for as much as eight of the total number of 10 are traceable in the contemporaneous Linear B tablets from the palace of Knossos (see Table XIII). Contrary to the opinion

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<sup>46</sup> Best & Woudhuizen 1989: 69.

<sup>47</sup> Note their mention in the legend of the Cretan hieroglyphic seal # 296, see Fig. 29.

<sup>48</sup> For a possible solution to the problem that in the Linear B administration at Knossos the TN *da-wo*, in which the palace of Knossos, given its high frequency, had a capital interest, has been plausibly identified as referring to Hagia Triada, whereas alongside this mention is also made of *sa-ka-ri-jo* or *sa-qa-re-jo*, an ethnic derivative of the place-name Skheria, in which the palace of Knossos, given its low frequency, had only a marginal interest, see my treatment of this topic in section IV.1 below.

of John Chadwick as ventilated in his review of *Ancient Scripts from Crete and Cyprus* for *Antiquity* 63, 238 of March 1989 (p. 181), these correspondences certainly do include the name Mesara, which in adjectival derivation appears as *mi-sa-ra-jo* in KN F 841, line 4, where its direct association with the TN *pa-i-to* ensures the interpretation as an ethnic bearing reference to the region later known as Mesara beyond any reasonable doubt.

Phaistos disk	Knossos Linear B	Other sources
1. <i>á-sú-wi-ya<sub>1</sub></i> (ethn.)	<i>a-si-wi-jo</i> (ethn.), cf. <i>a-si-ja-ka</i> (LA)	<i>Aššuwa</i> (Hit.), ' <i>Isy</i> (EgH)
2. <i>hì-ya<sub>1</sub>-wa<sub>8</sub></i>	<i>a-ka-wi-ja-</i>	<i>Hiāwa-</i> (Luw.)
3. <i>ra-sú-tu<sub>6</sub></i>	<i>ra-su-to</i>	<i>Lasithi</i>
4. <i>mi<sub>1</sub>-SARU</i>	<i>mi-sa-ra-jo</i> (ethn.)	<i>Mesara</i>
5. <i>ku-na-sa<sub>3</sub></i>	<i>ko-no-so</i>	<i>kʷ-in-yw-šʷ</i> (EgH)
6. <i>*wa<sub>8</sub>-tu<sub>6</sub></i>	<i>wa-to</i>	(F) ἄστν "town"
7. <i>sa<sub>3</sub>-hár-wa<sub>10</sub></i>	<i>sa-ka-ri-jo</i> / <i>sa-qa-re-jo</i>	Σχεροία
8. <i>pa<sub>5</sub>-ya<sub>1</sub>-tu<sub>6</sub></i>	<i>pa-i-to</i>	<i>bʷ-y-šʷ-ti-y</i> (EgH)
9. <i>ú-pa<sub>5</sub> pa<sub>5</sub>-yá-ta</i> ≈	<i>ku-ta-to</i>	Γόρτυς
10. <i>ri-ti<sub>1</sub>-na</i> ≈	<i>da-*22-to</i>	Ῥύτιόν & Δίκτη

Table XIII. List of corresponding geographic names.

In the previous pages we have concentrated our attention on issues which are vital for the interpretation of the text on the discus, like identification of the sender and person addressed, a thorough understanding of the rather complicated introductory phrases, a clear notion of the general composition of the text and identification of the localities mentioned. Every solution reached on these main issues, however, triggers a chain reaction in other aspects of the interpretation. Thus the Linear B evidence for the existence of the name of the region Mesara already during the Late Bronze Age, just mentioned in the preceding elaboration of the geographical framework of the text on the discus, positively indicates that the value of the sign PD13 is *mi<sub>1</sub>* instead of †*ma<sub>2</sub>* or the like (though it must be admitted that the abbreviation *MA*, written with E74-75 *ma<sub>1</sub>* or E64 or CHIC013 *ma<sub>6</sub>*, is used as a reference to the Mesara on the seals, see section I.1.4 above). In turn, this improvement of the reading of the

sign in question greatly facilitates our understanding of expressions like *KATA-mi<sub>1</sub>* (B19) and *KATA+ti* (B18, etc.), because there now appears to be complete parity between the forms of the dative of the enclitic pronouns of the 1st and 2nd person singular, respectively, as should be expected in the light of the parallels from the Anatolian, or even the Indo-European, languages in general (note, however, that the situation in Luwian hieroglyphic is more complicated, with *-ma* and *-mu* appearing alongside *-mi* in connection with the dative of the enclitic pronoun of the 1st person singular).<sup>49</sup> Similarly, the adoption of the axiom that alternating final signs in doublets and triplets are indicative of case endings or verbal conjugation results, as has been shown earlier, in the distinction between the forms of the present and past tense of the verb *sa<sub>6</sub>-* (variant spelling *as-*) “to be”, ending in *+ti* (A1, B6, 8) and *-ta* (B23), respectively. The latter effect, however, has direct repercussions for the interpretation of the combination *mi<sub>4</sub> ta-ti<sub>3</sub>* (B16), recurring in variant spelling *á-mi<sub>4</sub> ta-ti<sub>1</sub>* (B28) a few phrases later, as it is used in that part of the text characterized by the single mention of the form *sa<sub>6</sub>-ta* for the past tense. This being the case, the inherent plausibility of comparing the combination in question to Luwian hieroglyphic *mi(aà) tátia* “for my father”<sup>50</sup>—an expression used in historical situations invoked as precedent—far exceeds that of possible other options.<sup>51</sup> As a consequence of the analysis of sender and addressee, finally, the latter (“Nestor, great (man) in Akhaia”) definitely turns out to be inferior in rank to the former (“his majesty”, plausibly identified as great king Tar-khun(d)aradus of Arzawa). This observation, then, strongly recommends the interpretation of the element *lí* (A15, 21), which recurs in writing variant *li* (B6, 14) on the other side of the discus, as an abbreviation of the Hittite notion *linkiyaš* “person under oath, sworn ally or vassal”, as this element is consistently associated with a declined form of the pronoun of the 2nd person singular.<sup>52</sup> As a matter of fact, the Hittite form in question is a genitive singular of the noun *linkiya-* “oath”, which frequently turns up in combination with

<sup>49</sup> Friedrich 1974: 134 (*katti-mi, katti-ti*); cf. Woudhuizen 2015a: 247.

<sup>50</sup> Woudhuizen 2015a: 210-211.

<sup>51</sup> After Best in Best & Woudhuizen 1988: 49.

<sup>52</sup> CHD, s.v. *link(a)-*; cf. Best in Best & Woudhuizen 1988: 50 and Best & Woudhuizen 1989: 69.

other words in expressions like, for example, *linkiyaš uddār* “words of the oath” and *linkiyaš tuppi* “tablet of the oath”, as is comparable to the association of the abbreviation *LÍ* in the text on the front side of the discus, where it is used in combination with *SARU+ti* “of the kingship” (note that the latter form is an Akkadism comparable to Hittite *šarrūt(t)u* “kingship” and therefore regularly marked by the Akkadian genitive singular *-i*).<sup>53</sup> It needs no further comment that by this device vassals are aptly reminded of their feudal obligations to which they have committed themselves during the ceremonial act of allegiance—an observation duly illustrated by the Hittite text commonly referred to as the Indictment of Madduwattas. As a result of these and similar chain reactions, then, the room for divergences of opinion concerning the interpretation of minor details of the text is substantially diminished and of no further relevance in the present context.

A translation of the text on the discus based on the consensus of 5 authors is presented by Lia Rietveld in Achterberg e.a. 2004: 94-95. My translation deviates from the latter only on some minor issues. So I stick to the reconstruction of the genitive particle *sa<sub>2</sub>* in A8, believe that *ti<sub>2</sub>-ya<sub>1</sub>-sa<sub>2</sub>* in A11 and *i-ya<sub>1</sub>-sa<sub>2</sub>* in B1 render the G pl., that *ti<sub>1</sub>-wa<sub>10</sub>+ti* in A12 renders the 3rd pers. sg. of the present tense/future tense, and that *-pa<sub>5</sub>* in B25 is the introductory particle “but; and”. All in all, then, I arrive at the following transliteration and translation:

#### Side A

1-2	<i>á-tu<sub>6</sub> mi<sub>1</sub>-SARU sa<sub>6</sub>+ti pa<sub>5</sub>-ya<sub>1</sub>-tu<sub>6</sub></i>	“In the Mesara is Phaistos.”
3-5	<i>ú 'ná-sa<sub>2</sub>+ti ú ú-ri á-tu<sub>6</sub> hì-ya<sub>1</sub>-wa<sub>8</sub></i>	“To Nestor, great (man) in Akhaia.”
6-7	<i>ku ná-sa<sub>2</sub>-tu<sub>6</sub> ku tí KATA[+ti]</i>	“What Nestor (has), what you (have) under [you],”
8-9	<i>á-tu<sub>6</sub> mi<sub>4</sub>-sa<sub>6</sub> [sa<sub>2</sub>] ra-sú-ta</i>	“in my (territory) concerning the Lasithi,”
10-11	<i>á-tu<sub>6</sub> ti<sub>2</sub>-sa<sub>1</sub> ta SARU ti<sub>2</sub>-ya<sub>1</sub>-sa<sub>2</sub></i>	“in your (territory) and of

<sup>53</sup> Friedrich 1974: 173 (Akkadische Abstraktbildungen auf *-ūtu(m)*), 171 (Akkadische Nominalflexion). Note that precisely the same abbreviation *LI* is used in the Luwian hieroglyphic Assur letters (As f-g29) for the expression of the verbal root *link-* “to swear in, put under oath”, see Woudhuizen 2015a: 277.

- 12-13 *á-tu<sub>6</sub> -ti<sub>5</sub> ti<sub>1</sub>-wa<sub>10</sub>+ti TARĤU(NT)* *sol suus+WÁSU* your kings.”  
 “To you brings Tarkhunt, his majesty, “hail”.”
- 14-16 *á ku-na-sa<sub>3</sub> ti<sub>1</sub>-sa<sub>6</sub> <sup>U</sup>SARU+ti* *á-tu<sub>6</sub> ra-sú+ti* “Knossos (is) part of your sworn kingship in the Lasithi,”
- 17-19 *á-tu<sub>6</sub> ku-ku-ta <sup>DU</sup>jugum+aratrum* *wa<sub>8</sub>-ti<sub>1</sub> á-tu<sub>6</sub> ra-sú+ti* “in (the territory) wherever a team of oxen ploughs for the town in the Lasithi.”
- 20-22 *á ku-na-sa<sub>3</sub> ti<sub>1</sub>-sa<sub>6</sub> <sup>U</sup>SARU+ti* *á-tu<sub>6</sub> ra-sú+ti* “Knossos (is) part of your sworn kingship in the Lasithi,”
- 23-25 *á-tu<sub>6</sub> ku UTNA ti<sub>5</sub>-sa<sub>6</sub> ku mi<sub>4</sub>-sa<sub>6</sub>* *anulus-sa<sub>1</sub> ra-sú-tu<sub>6</sub>* “in (the territory) what your district (is) what part (is) of my realm the Lasithi.”
- 26-28 *á-tu<sub>6</sub> mi<sub>1</sub>-SARU ti<sub>1</sub>-sa<sub>1</sub> ta+ti* *sa<sub>3</sub>-hár-wa<sub>10</sub>* “In the Mesara there (is) Skheria yours,”
- 29-31 *á-tu<sub>6</sub> ku-ku-ta <sup>DU</sup>jugum+aratrum* *mi<sub>1</sub>-SARU sa<sub>3</sub>-hár-wa<sub>10</sub>* “in (the territory) wherever a team of oxen ploughs for Skheria (in) the Mesara.”

## Side B

- 1-2 *á-tu<sub>6</sub> i-ya<sub>1</sub>-sa<sub>2</sub> ku ná-sa<sub>2</sub>-ta* “In (the territory) of the following persons, what Nestor (has).”
- 3-4 *á-du -ti<sub>1</sub> TIWA+ti i-na-ku* “To you Haddu brings “life”.”
- 5-7 *wa<sub>8</sub> pa<sub>5</sub>-yá-tu<sub>6</sub> <sup>U</sup>ti<sub>1</sub>-sa<sub>6</sub> as+ti* *mi<sub>1</sub>-SARU -hà-wa<sub>8</sub>* “Phaistos is (part of) your sworn (district) and the Mesara,”
- 8-9 *TUZI sa<sub>2</sub> mi<sub>1</sub>-SARU sa<sub>6</sub>[+ti]* *i-du-ma<sub>2</sub>-na* “great intendant of the Mesara is Idomeneus,”
- 10-12 *sa<sub>2</sub> pa<sub>5</sub>-ya<sub>1</sub>-ta á-sú-wi-ya<sub>1</sub>* *ku-na-wa<sub>10</sub> SARU* “of the Assuwan Phaistos (is) Gouneus king.”
- 13-15 *ú-pa<sub>5</sub> pa<sub>5</sub>-yá-ta <sup>U</sup>UTNA-sa<sub>6</sub>* *ú-wa<sub>8</sub> SARU* “Behind Phaistos (is) part of (your) sworn district, Uwas (is) king,”
- 16-17 *mi<sub>4</sub> ta-ti<sub>5</sub> -hà-wa<sub>8</sub> á-har<sub>1</sub>-ku SARU* “and for my father (was) Akharkus king.”

18-20	<i>ú-wi-sa<sub>2</sub> KATA+ti ú KATA-mi<sub>1</sub> ú ná-sa<sub>2</sub>+ti</i>	“Yours <pl.> under you: under me: for Nestor.”
21-23	<i>i ú-wi-sa<sub>2</sub> KATA+ti ku ri-ti<sub>1</sub>-na sa<sub>2</sub> sa<sub>6</sub>-ta</i>	“This of You <pl.> under you to which Rhytion belonged,”
24-25	<i>sa<sub>2</sub> ná-sa<sub>2</sub>+ti sa<sub>2</sub> ti<sub>1</sub>-sa<sub>6</sub> -pa<sub>5</sub></i>	“concerning (the territory) for Nestor, i.e. concerning your (territory),”
26-28	<i>i ú-wi-sa<sub>2</sub> KATA+ti ḥar<sub>1</sub>-ma-ḥà-sa<sub>6</sub> sa<sub>2</sub> á-mi<sub>4</sub> ta-ti<sub>1</sub> sa<sub>2</sub></i>	“this of You <pl.> under you (belonged) to the man with respect to (the territory) for my father with respect to (the territory):”
29-30	<i>ú ri-ti<sub>1</sub>-na ná-sa<sub>2</sub>+ti</i>	“(so) Rhytion (is) for Nestor.”

In summary, the discus of Phaistos is the longest text in Cretan hieroglyphic which has come down to us. It was recovered in 1908 during the excavations of Luigi Pernier in the palace of Phaistos. On the basis of the association of the discus with a Linear A tablet with a name paralleled for the Hagia Triada corpus and the Akhenaten-style of the “feathered head” sign, PD02, it can be dated to *c.* 1350 BC. As we have noted in the preceding, the fact that 19 of its signs correspond to counterparts in Cretan hieroglyphic (see section I.1.2 and Fig. 25) leaves no doubt whatsoever that the script of the discus really is a manifestation of Cretan hieroglyphic, be it on the largest extant scale. What we have here is a letter comparable to the correspondence of the El Amarna archive and of the archives discovered in the capital of the Hittites, Boğazköy-Khattusa, an absolute *unicum* for the Aegean region during the Late Bronze Age. In the letter, which is probably a transcription in the local script and dialect of a cuneiform Luwian original sent by great king Tarkhun(d)aradus of Arzawa,<sup>54</sup> the territories in Crete of Nestor, king of Pylos according to Homeros, and their status are meticulously defined. Thus, we are informed that Nestor has in loan the region of Knossos in the Lasithi and that of Skheria, Phaistos and the land behind Phaistos in the Mesara. The last two regions are ruled by

<sup>54</sup> Note that the transcription of incoming letters from international correspondence into the local script and dialect is also attested for Ras Shamra-Ugarit and Cyprus-Alasiya (Linear D tablet inv. no. 1687, see Woudhuizen 2016: 189-220).

local vassal kings, as far as their name is concerned ultimately of Anatolian background,<sup>55</sup> which are supervised by Idomeneus, king of Knossos according to the literary evidence and leader of the Cretans from various towns in Crete including those from the Mesara according to Homeros. The problem is posed by the precise status of Rhytion in the eastern part of the Mesara, which, so the letter stipulates, falls under the responsibility of the vassal king of the land behind Phaistos, Uwas, in like manner as it had done during the reign of Tarkhun(d)aradus' father when Uwas' predecessor Akharkus reigned here.

In this manner, then, the text of the discus of Phaistos gives us a unique glimpse of the division of power in Crete and the Aegean region during the Minoan-Mycenaean transitional period (c. 1450-1350 BC). As it seems, the Pylian Greeks had conquered the island of Crete, no doubt having taken advantage of the especially for the northeastern part of the island disastrous Santorini eruption, and still allowed the original Minoan population in the Mesara region some sort of autonomy. The latter apparently based their claim to some share in the government on their previous partaking in the Assuwan league (late 15th century BC), which next to islands in the Aegean, must have included Crete in its sphere of influence<sup>56</sup> and of which Tarkhun(d)aradus poses himself as a rightful successor. After c. 1350 BC, the given situation is dramatically changed as the Greeks from Mycenae take over the administration and subject the entire island of Crete to the Mycenaean *koinē*.

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<sup>55</sup> Note, however, that the name of the vassal king of Phaistos, Gouneus, which in form of *ku-ne-u* is also attested for the Linear B tablets of Knossos, is rather of Pelasgian background, see Woudhuizen 2006a: 103-104 or van Binsbergen & Woudhuizen 2011: 281.

<sup>56</sup> In actual fact, the Assuwan league appears to have profited from the Santorini eruption of c. 1450-1440 BC before the Greeks did as, as observed in note 39 above, 'Isy is associated with Keftiu in the annals of Tuthmosis III for the years 1445 BC and 1441-1440 BC—at least if this association may be explained in terms of Assuwan presence in the island of Crete.



Fig. 51. Drawing of side A of the discus of Phaistos (from Best & Woudhuizen 1988: 32, Fig. 1a).



Fig. 52. Drawing of side B of the discus of Phaistos (from Best & Woudhuizen 1988: 33, Fig. 1b).

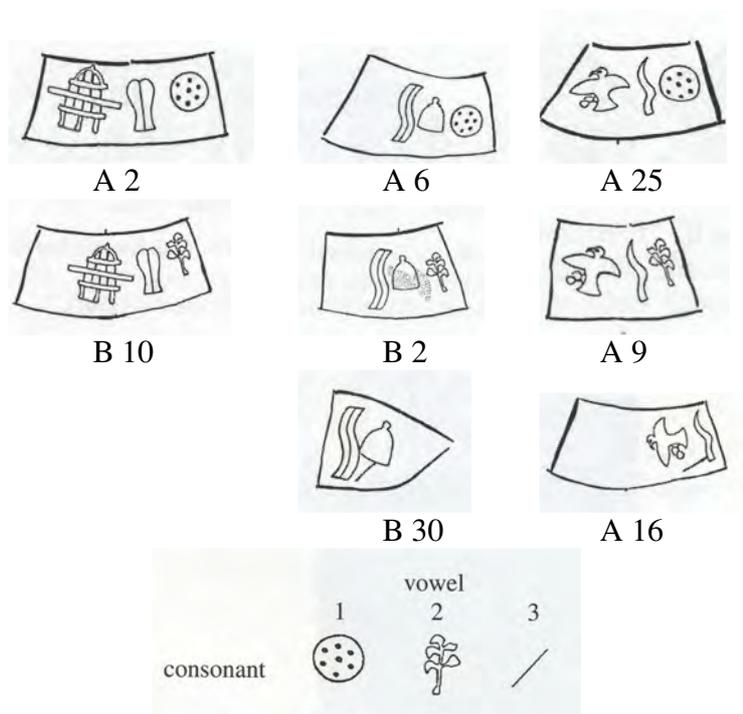


Fig. 53. Doublet and triplets with resulting grid (after Achterberg e.a. 2004: 76, Fig. 34).

CHAPTER II:

LINEAR A



## II.1 THE LANGUAGE(S) OF LINEAR A\*

The earliest inscriptions in the class of writing called Linear A are found in Phaistos, in a layer dated to the end of Middle Minoan II, which provides us with *c.* 1700 BC as a *terminus ante quem*. During the period of its *floruit*, Linear A can be found all over the island of Crete, and is even exported to the Aegean islands (Kythera, Kea, Thera, Melos), the Greek mainland (Ayos Stephanos), the west coast of Asia Minor (Miletos, Troy), and the Levant (Tel Haror) (see Fig. 54).<sup>1</sup> The latest documents are usually assigned to the end of Late Minoan IB (*c.* 1450 BC), with the possible exception of some texts from Knossos apparently dating to Late Minoan II (*c.* 1450-1400 BC).<sup>2</sup> The close relation between the Linear B tablets from Knossos, the majority of which dates to Late Minoan II-III A1 (*c.* 1450-1350 BC), on the one hand, and the corpus of Linear A tablets from Hagia Triada on the other hand, however, strongly suggests that Linear A continued in use in the region of the Mesara valley up to the time of the destruction of the palace of Knossos at the end of Late Minoan III A1 (*c.* 1350 BC).<sup>3</sup>

The signary of Linear A is partly footed in the preceding Cretan hieroglyphic script—among which especially the texts with the so-called libation formula are closely related to Linear A counterparts<sup>4</sup>—but the main stimulus as to its development it owes to the invention of the local linear script at Byblos, *c.* 1720-1700 BC.<sup>5</sup> In the latter town the linearization of signs from Egyptian hieroglyphic and Akkadian

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\* My thanks are due to Jan G.P. Best, Ignacy R. Danka, and Krzysztof T. Witzak for proofreading the manuscript and suggesting some improvements. An earlier draft of this section also appeared as Woudhuizen 2004b and Woudhuizen 2006b: section II.1 (pp. 35-57).

<sup>1</sup> Niemeier 1996: 99, Fig. 3; for Troy, see Godart 1994b and Faure 1996. En route from Crete to Troy, three Linear A signs are reported for Samothrace, see Facchetti 2002: 138. For stray finds from Drama in Thrace, Eski Samsun on the Turkish Black Sea coast, and Monte Morrone on the Italian side of the Adriatic, see Bossert 1942: Abb. 6, Fol & Schmitt 2000, and Facchetti & Negri 2003: 188-191 and Tav. I, respectively. For Tel Haror, see Oren 1996. See Woudhuizen 2009: 185-192.

<sup>2</sup> Vandenabeele 1985: 12; 6; 18 (overview).

<sup>3</sup> Best 1981b: 41-45. For the lowering of the date of the end of Late Minoan III A1 from *c.* 1370 BC to *c.* 1350 BC, see section I.1.1, note 1 above.

<sup>4</sup> Grumach 1968; Woudhuizen 2001: 608-609; see section I.1.1 above.

<sup>5</sup> Woudhuizen 2007: 709-710; see further section II.2 below.

cuneiform gave rise to the so-called proto-Linear Byblos script, a provincial development at the time of the intrusion of gangs of Indo-Aryan chariot fighters from c. 1730 BC onwards, disrupting the regular contacts with Egypt.<sup>6</sup>

There is *communis opinio* in the scholarly world that Linear B—which, as shown by Michael Ventris' decipherment in 1952, notates an ancient form of Greek—derives from Linear A. Therefore, it can be assumed that related signs in Linear A express about the same value as they do in Linear B. At any rate, filling in the Linear B values for cognates in Linear A results in a great number of identical forms or forms with identical root but alternating final vowel, or forms with nearly identical root between the Linear A texts, mainly those from Hagia Triada, on the one hand and the Linear B ones, especially those from Knossos, on the other hand. This observation presents welcome additional proof for the contemporaneity of the two corpora as argued above. In the list that follows below, I draw from Packard 1974, Hiller 1978-9, Meijer 1982, Duhoux 1989 and Schoep 2002(: 154-156). Especially interesting are the large number of instances showing an identical root-final consonant, but an alternating vowel, which for the sake of clarity are marked in bold type. The same procedure, i.e. filling in Linear B values for cognate Linear A signs, also results in evidence for such alternation in Linear A itself, one of which stems from Tsipopoulou, Godart & Olivier 1982. Like in case with the Linear A-Linear B correspondences, these alternations are marked in bold type. Note that a problem is posed by the reading of L100, which sometimes corresponds with Linear B *i* and in other instances with Linear B *no*.<sup>7</sup> As it seems, we are dealing here with a merger between two originally distinct signs, the one having three strokes on the top side (L100a) and the other having five or four strokes on the top side (L100b). Thus, it so happens that for the expression for *no* in the sequence variously occurring as *a-ta-no-tV* or *ta-na-no-tV* three different forms are recorded by Godart and Olivier (1985: xxxiii):

<sup>6</sup> Woudhuizen 2007: 697.

<sup>7</sup> Peruzzi 1960: 40-42; Pope & Raison 1977; Meijer 1982: 43; *contra* Finkelberg 1990-1: 45, note 7, and the transcription practice common among Mycenologists more in general. For convenience's sake in this section I adhere to the traditional numbering of the signs as presented in Meijer 1982: 38-52, except when quoting Consani's (1999) transliteration of the texts, who uses the system of numbering as adopted by the corpus of Linear texts, GORILA (esp. Vol. 5: XXII). For a concordance between these two systems of numbering, see the end of section II.3 below.

with three (2x), four (1x), and five (1x) strokes at the top! Finally, it deserves attention that L57 only occurs in Linear A, but in instances where Linear B parallels suggest the value *si*.

### I. Corresponding forms between Linear A and Linear B

Linear A		Linear B
	identical	
1. <i>da-i-pi-ta</i>		<i>da-i-pi-ta</i>
2. <i>i-ja-te</i>		<i>i-ja-te</i>
3. <i>i-ta-ja</i>		<i>i-ta-ja</i>
4. <i>ki-da-ro</i>		<i>ki-da-ro</i>
5. <i>ma-di</i>		<i>ma-di</i>
6. <i>pa-i-to</i>		<i>pa-i-to</i>
	identical root	
7. <i>a-ka-ru</i>		<i>a-ka-re-u</i>
8. <i>a-ra-na-re</i>		<i>a-ra-na-ro</i>
9. <i>a-re-sa-na</i>		<i>a-re-sa-ni-e</i>
10. <i>a-sa-ra<sub>2</sub></i>		<i>a-sa-ro</i>
11. <i>da-mi-nu</i>		<i>da-mi-ni-jo</i>
12. <i>di-de-ru</i>		<i>di-de-ro</i>
13. <i>di-ka-tu[</i>		<i>di-ka-ta-jo</i>
14. <i>i-ku-ta</i>		<i>i-ku-to</i>
15. <i>ka-nu-ti</i>		<i>ka-nu-ta-jo</i>
16. <i>ka-ru</i>		<i>ka-ro</i>
17. <i>ka-sa-ru</i>		<i>ka-sa-ro</i>
18. <i>ki-ri-ta<sub>2</sub></i>		<i>ki-ri-ta</i>
19. <i>ku-ru-ku</i>		<i>ku-ru-ka</i>
20. <i>ma-ru</i>		<i>ma-ro</i>
21. <i>pa-ja-re</i>		<i>pa-ja-ro</i>
22. <i>qa-qa-ru</i>		<i>qa-qa-ro</i>
23. <i>qa-ra<sub>2</sub>-wa</i>		<i>qa-ra<sub>2</sub>-wo</i>
24. <i>ra-ri-de[</i>		<i>ra-ri-di-jo</i>
25. <i>sa-ma-ro</i>		<i>sa-ma-ri-jo</i>
26. <i>sa-ma-ti</i>		<i>sa-ma-ti-ja/o</i>
27. <i>su-ki-ri-te-i-ja</i>		<i>su-ki-ri-ta</i>

Linear A		Linear B
28. <i>ta-na-ti</i>		<i>ta-na-to</i>
29. <i>te-ja-re</i>		<i>te-ja-ro</i>
L100b		
30. <i>a-ta-no</i>		<i>a-ta-no</i>
31. <i>ki-ta-no</i>		<i>ki-ta-no</i>
32. <i>ku-ra-no</i>		<i>ku-ra-no</i>
33. <i>no-sa-ri</i>		<i>no-sa-ro</i>
L57		
34. <i>ma-si-du</i>		<i>ma-si-dwo</i>
35. <i>si-ki-ra</i>		<i>si-ki-ro</i>
36. <i>si-mi-ta</i>		<i>si-mi-te-u</i>
nearly identical root		
37. <i>ku-ku-da-ra</i>		<i>ku-ka-da-ro</i>
38. <i>ku-pa<sub>3</sub>-na-tu</i>		<i>ka-pa<sub>3</sub>-na-to</i>
39. <i>ku-pa<sub>3</sub>-nu</i>		<i>ka-pa<sub>3</sub>-no</i>
40. <i>ku-zu-ni</i>		<i>ku-do-ni-ja</i>

## II. Evidence for alternation within Linear A itself

41. <i>a-di-ki-te-te</i>	<i>ja-di-ki-te-te</i>
42. <i>a-ta-de</i>	<i>au-ta-de</i>
43. <i>a-ta-no-tV-wa-ja</i>	<i>ja-ta-no-tV-u-ja</i>
44. <i>a-sa-sa-ra-me</i>	<i>ja-sa-sa-ra-me</i>
45. <i>di-ra-di-na</i>	<i>di-re-di-na</i>
46. <i>i-pi-na-ma</i>	<i>i-pi-na-mi-na</i>
47. <i>ja-di-ki-te-te</i>	<i>ja-di-ki-tu</i>
48. <i>ja-sa-sa-ra-ma-na</i>	<i>ja-sa-sa-ra-me</i>
49. <i>ki-ra</i>	<i>ki-ro</i>
50. <i>ki-re-ta-na</i>	<i>ki-re-ta<sub>2</sub></i>
51. <i>na-da-re</i>	<i>ne-da-re</i>
52. <i>pi-ta-ka-se</i>	<i>pi-ta-ke-si</i>
53. <i>qa-ra<sub>2</sub>-wa</i>	<i>qe-ra<sub>2</sub>-u</i>
54. <i>sa-ra</i>	<i>sa-ra<sub>2</sub>, sa-ro, sa-ru</i>
55. <i>te-tu</i>	<i>te-tV</i>

If these correspondences between Linear A and Linear B, and the additional cases of alternation within Linear A itself, may be considered as confirmatory evidence for the assumption that related Linear A signs express about the same value as their Linear B cognates, we have with the foregoing list tested the validity of the value of 44 signs in sum. In order to facilitate the reading of Linear A texts, these signs can be put into a grid (see Fig. 55). To this nucleus of 44 signs of which the value has been tested in the aforesaid manner, there can be added 15 signs of which the form is definitely related with a Linear B counterpart and of which the value may hence be considered to be related.<sup>8</sup> Of the 15 additional signs, the value of one, L44 *e*, can be substantiated by subsidiary combinatory evidence as its occurrence in predominantly front position suggests a vowel.<sup>9</sup>

A major difference between Linear A and Linear B, however, may, as observed by various scholars on the basis of Linear A's preference for *Cu* where Linear B has *Co* in corresponding forms (cf. Linear A *di-de-ru*/Linear B *di-de-ro*, Linear A *qa-qa-ru*/Linear B *qa-qa-ro*, Linear A *ku-pa<sub>3</sub>-nu*/Linear B *ka-pa<sub>3</sub>-no*) and the fact that as much as five Linear B signs from the *o*-series were newly created (*do*, *jo*, *mo*, *qo*, *wo*), be the absence of a separate *o*-series in Linear A.<sup>10</sup> In accordance with this observation, I have grouped the Linear A counterparts of Linear B *po*, *ko*, *to*, *ro*, *no*, and *so* with the *u*-series in the grid, and transliterated them, in order to bring about a distinction with the regular representatives of the *u*-series, with a macron indicative of long vowels: hence *pū*, *kū*, *tū*, *nū*, and *sū*. (Although for the sheer number of signs in the *u*-series which results from this procedure, distinction of vowel length seems a likely inference, I do not believe that it has been linguistically founded exactly which of the double or sometimes even triple representatives of the *u*-series is used for the expression of a long vowel: in this manner our transliteration is a purely formal one.)<sup>11</sup> Yet another difference between Linear A and Linear B may be formed by the fact that the former to a larger degree than the latter shows some evidence for the distinction between the *l*- and *r*-series: hence our transliteration of Linear B *ro* as *lū* and Linear

<sup>8</sup> For the forms and values of the Linear B signs, see Ventris & Chadwick 1973: 23, Fig. 4. Note that \*85 = *au* and that *ai<sub>2</sub>?* and *ai<sub>3</sub>?* (\*34-35) = *lu* as per Ruijgh 1979.

<sup>9</sup> Duhoux 1989: 116, Fig. 8.

<sup>10</sup> Best 1981b: 38-40; Finkelberg 1990-1: 45.

<sup>11</sup> Cf. the note on the Linear A syllabary at the end of section II.3 below.

B  $ru_2$  as—what appears to be its original value in Linear B as well—*lu*. Nevertheless, it must be realized that members of the *r*-series may represent the value *lV*, as demonstrably the case with L54 *re*, and vice versa.

Some remaining minor adjustments in the transliteration of signs as applied in the following treatment of texts concern the rendering of Linear B  $ra_2$  as  $r\bar{i}$  (in contradistinction of L72 *ri*), whereas the typical Linear A sign L88, which Louk Meijer (1982: 87-88) has shown to represent *tV*, is transliterated as  $t\bar{i}$  in contradistinction of regular L78 *ti*. Note, finally, that I have preferred *y* instead of *j* for the glide in question and a simplified transliteration of consonants which according to the grid may represent more than one sound: thus  $p/b = p$ ,  $g/h/k = k$ ,  $d/\underline{d} = d$ ,  $t/\underline{t} = t$ ,  $s/\underline{s}/\check{s} = s$ , and  $h/q = q$ .

As the given adjustments of the transliteration are still provisional, I will in the discussion of the selected inscriptions which follows below first present these in the transliteration applied by Consani 1999,<sup>12</sup> which is common among Mycenologists and based on the edition of the corpus of Linear A texts by Godart & Olivier (GORILA), and only in second instance in the one advocated here and illustrated in our grid.

It is well possible that the values of some of the Linear A signs, as most emphatically argued by Brown 1992-3, are ultimately based on the acrophonic principle. If the original notion depicted by the sign is clear, we could in this manner have a welcome check on the value it represents and, what is more, a means to determine the language of the scribes which devised the script. The following table presents what I consider the most likely examples of the acrophonic principle.

	SIGN	VALUE	ORIGINAL NOTION	LANGUAGE
1.	L81a	<i>ye</i>	<i>i(w)</i> “to come”	Egyptian
2.	L95	<i>ma</i>	<i>mṽw</i> “cat”	Egyptian
3.	L56	<i>pi</i>	<i>bṽty</i> “bee”	Egyptian
4.	L31	<i>sa</i>	<i>shnt</i> “support”	Egyptian
5.	L32	<i>ya</i>	𐀓 “door”	Egyptian
6.	L80	$\bar{u}$	<i>ws</i> “seat”	Egyptian
7.	L39	$t\bar{u}$	$\underline{d}d$ “djed-column”	Egyptian

<sup>12</sup> Note that for clarity’s sake I have indicated minor adjustments by an exclamation mark.

	SIGN	VALUE	ORIGINAL NOTION	LANGUAGE
8.	L102	<i>de</i>	<i>db</i> ʹ “floats”	Egyptian
9.	L103	<i>ki</i>	<i>hnm</i> (type of vase)	Egyptian
10.	L34	<i>pu</i> <sub>2</sub>	<i>bint</i> “harp”	Egyptian
11.	L27	<i>mu</i>	<i>muwa</i> - “strength”	Luwian
12.	L53	<i>ra</i>	<i>ara</i> - “eagle”	Luwian
13.	L92	<i>te</i>	<i>Telipinu</i> - “tutelary deity”	Luwian
14.	L22	<i>lū</i>	* <i>luk</i> - “light”	Luwian
15.	L1	<i>pa</i> <sub>3</sub>	<i>parna</i> - “house”	Luwian
16.	L29	<i>ka</i>	<i>harsanta(n)</i> - (part of a vehicle)	Luwian
17.	L36	<i>zi</i>	<i>ziti</i> - “man”	Luwian
18.	L45	<i>kū</i>	<i>kuruta</i> - “helmet, crown”	Luwian
19.	L52	<i>a</i>	<i>Asherah</i> (symbol double-axe)	Semitic
20.	L57	<i>si</i>	<i>sitos</i> “grain, ration”	Semitic
21.	L75	<i>wa</i>	<i>wainu</i> “wine”	Semitic
22.	L31	<i>sa</i>	<i>sēpia</i> “cuttle fish, squid”	pre-Greek
23.	L60	<i>ni</i>	<i>nikuleon</i> “fig”	pre-Greek

Table XIV. Examples of the acrophonic principle underlying the values of Linear A signs.

As it appears from this overview that the signs originating from Egyptian hieroglyphic (see Fig. 62) have preserved the original value to an astonishing degree. As the values of Luwian hieroglyphic signs can to a substantial degree be shown to have been developed on the basis of the acrophonic principle, it comes as no surprise that the same verdict applies to Linear A signs originating from this particular script (see Fig. 63). Note furthermore that the Cretan hieroglyphic ancestor sign of L31 *sa*, E60 or CHIC019, in the course of time became reinterpreted from its original meaning, a “supporting pole”, to a “cuttle fish” or “squid”, in like manner as the Cretan hieroglyphic “bee” sign E86 or CHIC020 became reinterpreted as a “spider”, E85. The wine ideogram ultimately originates from Egyptian hieroglyphic, but in the course of its adoption received a Semitic value. Like in the case of the “double axe” sign and the figs ideogram, it can be shown to have a counterpart in the Byblos script (see Fig. 64). The relation of L102 *de* to Egyptian hieroglyphic T25 *db*ʹ “floats”, finally, can only be

understood against the backdrop of the latter's reinterpretation as a vessel in the provincial form of Egyptian hieroglyphic at Byblos.<sup>13</sup>

From this overview, it may safely be concluded that the creation of the Linear A signary was a multi-linguistic affair, and therefore this criterium will not help us out in determining the language encoded in the script. But we will see that the possible involvement of Luwian and Semitic scribes as deducible from it may not be far off the mark.

### I. Tablet HT 31 (see Fig. 56)

Lit.: Gordon 1957: 125; Gordon 1966: 26; Gordon 1969; Stieglitz 1971; Richard 1974; Best & Woudhuizen 1989: 1-7 (overview); Consani 1999: 64-65; Duhoux 2000-1.

1. [.]*-ti-sa*, *pu-ko*, \*410<sup>VAS</sup>
2.     ] 5 \*402<sup>VAS</sup> '*qa-pa<sub>3</sub>*' 10 \*415<sup>VAS</sup> '*su-pu*' 10
3.     ] \*416<sup>VAS</sup> '*ka-ro-pa<sub>3</sub>*' 10 *sa-ja-ma* [30]
4.     ] 10 *ki-de-ma*-\*323-*na*
5. VEST.     \*402<sup>VAS</sup> 400 \*402<sup>VAS</sup> '*su-pa<sub>3</sub>-ra*' 300
6. \*402<sup>VAS</sup> '*pa-ta-qe*' 3000

1. [*mi*]-*ti-sa.pu-kū*.VAS<sup>d</sup>+L68?
2.                                    [...]                                    5?
2.                                    VAS<sup>a1</sup>+*qa-pa<sub>3</sub>*                                    10
2.                                    VAS<sup>b1</sup>+*su-pu*                                    10
3.                                    [...] VAS<sup>b2</sup>+*ka-lū-pa<sub>3</sub>*                                    10
3.                                    *sa-ya-ma[-na]*
4.                                    [...] *ki-de-ma-wi-na*
5.                                    L?2/3? VAS+?                                    400?
5.                                    VAS<sup>a1</sup>+*su-pa<sub>3</sub>-ra*                                    300
6.                                    VAS<sup>a1</sup>+*pa-ta-qe*                                    3000

	HT 31	Semitic	meaning
vessel names	1. <i>qa-pa<sub>3</sub></i>	<i>qapû, kp</i>	(vessel name)

<sup>13</sup> Woudhuizen 2007: 754, Fig. 12.

	HT 31	Semitic	meaning
	2. <i>su-pu</i>	<i>šappu, sp</i>	(vessel name)
	3. <i>ka-lū-pa<sub>3</sub></i>	<i>karpu, krpn</i>	(vessel name)
	4. <i>su-pa<sub>3</sub>-ra</i>	<i>sa<sub>3</sub>aplu, spl</i>	(vessel name)
	5. <i>pa-ta-qe</i>	<i>patāqu, pitqa</i>	(vessel name)
vocabulary words	1. <i>ki-de-ma-wi-na</i>	<i>ktm, kétem</i>	“gold”
	2. <i>sa-ya-ma-na</i>	<i>sym-, saym-</i>	“silver”
transaction term	<i>pu-kū</i>	<i>pūḫu</i>	“exchange”
	HT 31	Luwian	meaning
functionary	<i>mi-ti-sa</i>	<i>miti(a)-</i>	“servant”

In the latest discussion of tablet HT 31, Yves Duhoux accepts all five vessel names as Semitic, but considers them loan words. In order to be able to do so, he eliminates all other Semitic identifications: *pu-kū* becoming a word for “bronze” without any attempt at an etymological foundation, *ki-de-ma-wi-na* being reduced into *ki-de-ma-09-na*, whereas L9 is clearly a variant of L28 *wi*, and *sa-ya-ma-na* being alternatively read as *sa-ja-ma* 30. Even granting Duhoux a measure of insecurity in the reading, the roots *ki-de-ma-* and *sa-ya-ma-* still remain, and so does their Semitic elucidation. Note, finally, that Duhoux’ transliteration of the first word as *.i-ti-sa* results from a misplaced form of accuracy: either one considers the reading of the first sign insecure, or one claims to be able to recognize the contours of *mi* here; but in any case there is no formal relationship between the signs from the *i*-series to allow for the transliteration *.i*.

## II. Tablet HT 11b (see Fig. 57)

Lit.: ten Haaf 1975; Best & Woudhuizen 1989: 13-16; Consani 1999: 55.

1. ] de-nu, sa<sup>1</sup>-ra<sub>2</sub>,

2. NAVIS KA 40 KA 30
3. KA 50 ru-zu-na
4. KA 30 sa-qe-we<sup>1</sup>
5. KA 30 ku-ro
6. 180

1.	<i>[.] -de-nu</i>	
1.	<i>sa-rī.</i>	
2.		NAVIS <i>ka</i> 40
2.		<i>ka</i> 30
3.		<i>ka</i> 50
3.	<i>ru-zu-na</i>	
4.		<i>ka</i> 30
4.	<i>sa-qe-we</i>	
5.		<i>ka</i> 30
5-6.		<i>ku-lū</i> 180

	HT 11b	Semitic	meaning
functionaries	1.	<i>sa-rī</i>	<i>sar</i> “chief, ruler”
	2.	<i>ru-zu-na</i>	<i>rôzên</i> “prince, knight”
	3.	<i>sa-qe-we</i>	<i>zâqîf</i> “military guard”
transaction term	<i>ku-lū</i>	<i>kôl</i>	“total”
abbreviation	<i>ka</i>	<i>gabba</i>	“all”

As rightly emphasized by Frederik ten Haaf in his interesting note, the sequence of the three Semitic titles strikingly recalls that of *wa-na-ka* /(*w*)*anaks*/ “king”, *ra-wa-ke-ta* /*lāwāgetās*/ “leader of the host”, and *te-re-ta* /*telestās*/ “men of service” in Linear B. The form *sa-rī* is more likely to render the Semitic genitive singular in *-i* of Akkadian *šarru* “king” (cf. Linear B *wa-na-ka-te-ro* /*wanakteros*/ “of the king, royal”) than to bear testimony of the possessive pronoun of the first person singular *-ī* “my” as suggested by Best in Best & Woudhuizen 1989: 12, but, as he kindly informs me by personal communication, no longer maintained by him. As duly observed by Best (Best & Woudhuizen 1989: 15), the abbreviation *ka* also occurs

in full as *ka-pa* in association with the ideogram VIR, hence denoting “all the men”, elsewhere in the HT corpus. The identification of the transaction term *ku-lū* as Semitic *kôl* “total” was already suggested by Cyrus Gordon in his first note on Linear A (Gordon 1957: 124) and may enjoy a wide acceptance, even in Mycenological circles. It fits in with a whole series of transaction terms of Semitic origin (Best 1973: 54-55; cf. Hiller 1978-9: 225):

	LINEAR A	SEMITIC	LINEAR B	MEANING
1.	<i>ku-lū</i>	<i>kôl</i>	<i>to-so</i>	“total”
2.	<i>pū-tu-ku-lū</i>	<i>pū-tu + kôl</i>	<i>to-so-pa</i>	“grand total”
3.	<i>te-lū</i>	<i>tēlû</i>	<i>a-pu-do-si</i>	“delivery”
4.	<i>ki-lū</i>	<i>kalû(m)</i>	<i>o-pe-ro</i>	“deficit”
5.	<i>pi-pi</i>	<i>bibil</i>	<i>do-so-mo</i>	“as a gift”
6.	<i>pu-kū</i>	<i>pūḥu</i>		“exchange”

Table XV. Linear A transaction terms and their cognates in Semitic.

suggesting that the scribes of Linear A, in contrast to their Greek colleagues, did their utmost best to closely adhere to the international (= Akkadian) standards of administration.

### III. Tablet HT 95 (see Fig. 58)

Lit.: Best 1972a: 23-24; Stieglitz 1975; Hiller 1978-9: 227-229; Consani 1999: 89.

#### A

1. da-du-ma-ta, CER,
2. da-me 10 mi-nu-te 10
3. sa-ru 20 ku-ni-su
4. 10 di-de-ru 10 qe-
5. ra<sub>2</sub>-u 7

#### B

1. a-du, sa-ru 10
2. [CER<sup>1</sup>] da-me 10 mi-
3. nu-te 10 ku-ni-su

4. 10 di-de-ru 10 qe-  
5. ra<sub>2</sub>-u 10

## A

1.	<i>da-du-ma-ta</i> .GRANUM		
2.		<i>da-me</i>	10
2.		<i>mi-nu-te</i>	10
3.		<i>sa-rū</i>	20
3-4.		<i>ku-ni-su</i>	10
4.		<i>di-de-rū</i>	10
4-5.		<i>qe-rī-u</i>	7

## B

1-2.	<i>a-du</i> .	<i>sa-rū</i>	10	[GRANUM]
2.		<i>da-me</i>	10	
2-3.		<i>mi-nu-te</i>	10	
3-4.		<i>ku-ni-su</i>	10	
4.		<i>di-de-rū</i>	10	
4-5.		<i>qe-rī-u</i>	10	

	HT 95	Semitic	meaning
recipients	1. <i>da-du-ma-ta</i>	<i>ilānu</i> <sup>MEŠ</sup> <i>daadmema</i>	“gods of the dwellings”
	2. <i>a-du</i>	<i>Haddu</i>	
grain varieties	1. <i>sa-rū</i>	š ‘r	“barley”
	2. <i>ku-ni-su</i>	<i>kunīšu</i>	“emmer wheat”
	3. <i>qe-rī-u</i>	<i>qālî</i>	“toasted grain”

The identification of *ku-ni-su* with Akkadian *kunāšu* (writing variant *kunīšu* attested for tablets from Nuzi and Boğazköy) “emmer wheat” is, like that of *ku-lū* with Semitic *kôl* “total”, also of a respectable ancient nature, going back to Pope 1958: 21. It was tackled by Billigmeier 1974, who argued that, for its alignment with *di-de-rū*, *da-me*, and *qe-rī-u* in our tablet HT 95, which latter three correspond to the Knossian Linear B personal names *di-de-ro*, *da-me*, and *qa-ra<sub>2</sub>-wo*, it should rather be considered a personal name. In reaction, however, Best 1984-5 pointed out that the abbreviation *ku* of

*ku-ni-su* frequently occurs in ligature with the ideogram GRANUM, which tips the balance in favor of the view that it denotes a grain variety, again. Of particular interest are the recipients of the grain varieties, which are clearly of divine nature. Alongside the Semitic storm-god *Haddu*, we encounter the indication of deities in the feminine plural, *da-du-ma-ta*, which to all probability refers to the goddesses *Asherah* and *Tanit* or *Tinit* recorded for the Hagia Triada corpus, likewise in the heading of tablets, in form of the abbreviation *a* (= *Asherah*'s symbol, the double axe) and *ti-ni-ta*, respectively (Best & Woudhuizen 1988: 27). In this manner, then, the Semitic divine triad, after which the place is named, is revealed to us in its entirety.

#### IV. Libation formula (see Fig. 59)

Lit.: Gordon 1966: 28; Meriggi 1974a: 86-93; Best 1981a; Best 1981b; Consani 1999: 213; 217-8; 220; cf. Facchetti & Negri 2003: 127-39.

1. a-ta-no<sup>1</sup>-tV<sup>1</sup>-wa-ja, a-di-ki-te-te (...) a-sa-sa-ra-me (...) PK Za 11-2
2. ja-ta-no<sup>1</sup>-tV<sup>1</sup>-u-ja, [...] AP Za 1
3. ta-na-no<sup>1</sup>-tV<sup>1</sup>-wa<sup>1</sup>-ja<sup>1</sup> (.....), ja-sa-sa-ra-me (...) PS Za 2
4. (.....) ja-di<sup>1</sup>-ki-te-te (...) ja-sa[ ] (...) PK Za 8

1. *a-ta-nū-tī wa-ya a-di ki-te-te (...) a[-sa]-sa-ra.-me (...)* PK Za 11-2
2. *ya-ta-nū-tī u-ya [...]* AP Za 1
3. *ta-na-nū-tī wa-ya (.....) ya-sa-sa-ra.me (...)* PS Za 2
4. (.....) *ya-di ki-te-te (...) ya-sa[-sa-ra-me] (...)* PK Za 8

“I have given ánd my hand has made an expiatory offering (...), oh *Asherah* (...).”

	Libation formula	Semitic	meaning
1.	<i>a-ta-nū-tī</i> <i>ya-ta-nū-tī</i> <i>ta-na-nū-tī</i>	<i>'tnt</i> <i>ytnt</i> <i>tnnt</i>	“I have given”
2.	<i>wa-ya</i>	<i>wy</i>	“ánd”

	Libation formula	Semitic	meaning
	<i>u-ya</i>	'y	
3.	<i>a-di</i> <i>ya-di</i>	'd + -ī yd + -ī	“my hand”
4.	<i>ki-te-te</i>	<i>ḫtt</i>	“has made an expiatory offering”
5.	<i>a-sa-sa-ra./-me</i> <i>ya-sa-sa-ra./-me</i>	'ššrm yššrm	“oh Asherah”

With the coherent interpretation of the initial section and a combination further on in the text of the recurrent libation formula on wash-hand stone-basins from peak-sanctuaries, destroyed at the end of Middle Minoan III (c. 1600 BC), as initiated by Gordon in 1966, but first accomplished in its entirety by Best in 1981—not in the least place thanks to the admirably clear structural analysis by Piero Meriggi of 1974a—, the Semitic reading of Linear A has progressed beyond the level of isolated words and forms as attested for the tablets and reached the level of very specific and intimately intertwined morphological and grammatical features. In the words of Stefan Hiller (1985b: 127), when reviewing Best's interpretation of the libation formula: “Alle weiteren Versuche, die Linear A-Texte sprachlich zu erschließen, werden sie [i.e. Best's results] zu berücksichtigen haben.”

Hillers' words, however, did fall on deaf ears. Already from the very start of work on Linear A, it has been attempted to interpret the texts in this class of writing alternatively with the help of the Indo-European Anatolian languages, in particular its southwesterly branch Luwian. Thus, Leonard Palmer (1958b: 139; 1968: 339) suggested to elucidate the sequence *(y)a-sa-sa-ra./-me* from the libation formula, which in hieroglyphic variant also occurs separately on seals under the same name, in line with Hittite *išḫaššarašmiš* “my lady”, presuming that the Luwian form of Hittite *išḫar-* would be \**ašḫar-*. Even though the latter assumption is not unreasonable, the Luwian or Indo-European Anatolian solution is ruled out because Anatolian *ḫ* would be rendered by *k* or *q* in the Cretan Linear scripts, as it is the case in Linear B *a-ka-wi-ja-de* “to Akhaia”, the root of which corresponds to

Hittite *Aḫḫiyawa*-,<sup>14</sup> and Linear B *e-ri-ta-qi-jo*, which composite personal name bears testimony of the onomastic element *Tarḫu(nt)*-.<sup>15</sup> Lately, along similar lines, Margalit Finkelberg (1990-1), without reference to Best's work, with which she to all probability was acquainted (Finkelberg 1992), proposed to unravel the meaning of the libation formula in its various forms with the help of Lycian—a Luwian dialect of southwest Asia Minor, which, like Linear A, but contrary to Luwian hieroglyphic, uses the vowel *e*. Apart from an embarrassing mistake—the enclitic pronoun of the 1st person singular in Luwian is *-mi*, not *-ti* as Finkelberg 1990-1: 55 wants to have it—the Lycian approach fails, because: (1) there is no enclitic conjunction *-tī* (or *-tV*) in any of the Luwian dialects, as Finkelberg's (1990-1: 50-51) analysis presumes; (2) the sequence *(y)a-sa-sa-ra./-me* cannot be compared to Lycian *hrm,mā* "altar" and the possibly related Lydian *sirma-* as Finkelberg (1990-1: 66-68) does, because the use of punctuation in both hieroglyphic and Linear A variants of this formula clearly points out that the final syllable *me* is not part of the stem but a suffix;<sup>16</sup> (3) even if we neglect this latter argument, the meaning "altar" for the earlier hieroglyphic variant of the libation formula on three-sided ivory seals from graves makes no sense at all; and (4) the personal names assumed by Finkelberg (1990-1: 72) are clearly residual elements she cannot properly cope with in her Lycian approach and it therefore should not surprise us that an attempt to find parallels for them is omitted.

#### V. Pithos from Epano Zakro (ZA Zb 3) (see Fig. 60)

Lit.: Best 1972b; Gordon 1976: 28-29; Stieglitz 1983; Best 1982-3 [1984]; Consani 1999: 227-228.

1. VIN 32 di-di-ka-se, a-sa-mu-ne, a-se
2. a-ta-no<sup>1</sup>-tV<sup>1</sup>-de-ka, a-re-ma<sup>1</sup>-re-na, ti-ti-ku

1. WAINU 21 *di-di-ka-se.a-sa-mu-ne.a-se*

<sup>14</sup> Woudhuizen 2001: 609, note 19.

<sup>15</sup> Billigmeier 1970: 182; for the *q*-variant, cf. Lycian *Trqqñt-* or *Trqqas*.

<sup>16</sup> Best & Woudhuizen 1988: 25, Fig. 23; Best & Woudhuizen 1989: 20-21, Fig. 4; see section I.1.1. and Fig. 6 above.

2. *a-ta-nū-tī de-ka.a-re ma-re-na.ti-ti-ku*

1. “21 standard units of liquid measure of wine: (supplied by) Di-di-ka-se; the pithos: (supplied by) A-se.”
2. “I, Titikos, have given this to our guild-master.”

	Zakro pithos	Semitic	meaning
1.	<i>WAINU</i>	<i>wainu</i>	“wine”
2.	<i>a-sa-mu-ne</i>	<i>assammû + -n</i>	(vessel name)
3.	<i>a-ta-nū-tī</i>	<i>'tnt</i>	“I have given”
4.	<i>de-ka</i>	<i>dēk-</i>	“this, that”
5.	<i>a-re</i>	<i>'alēy-, l</i>	“to, for”
6.	<i>ma-re-na</i>	<i>mr' + -n</i>	“our guild-master”

It is interesting to note in this connection that the inscription on the gold ring from Mavro Spelio (KN Zf 13) is also characterized by the preposition *a-re*, corresponding to Semitic *'alēy-* or *l*. In addition, this latter inscription contains the place-names *pa-ya-ta* “Phaistos” and *a-ya-lu*, the Semitic (*ajalu* “stag”) equivalent of Linear B *e-ra-po-ri-me-ne /Elaphōn limenei/* “at Stags’ harbor”, probably a reference to the ancient name of the harbor of Malia.<sup>17</sup> The personal name *Titikos* is, on the analogy of *Arakos* (see next inscription) being a diminutive in *-ko-* of Luwian *ara-* “eagle”, likely to be considered a diminutive in *-ko-* of Anatolian *Titis*.<sup>18</sup> Note, finally, that the personal name *A-se* is paralleled for the HT texts.

## VI. Bowl from Kophinas Monophatsi (KO (?) Zf 2) (see Fig. 61)

Lit.: Tsipopoulou, Godart & Olivier 1982; Best & Woudhuizen 1989: 25-30; Consani 1999: 231; Best 2000.

*a-ra-ko-ku-qu-wa-sa-to-ma-ro-au-ta-de-po-ni-za*

<sup>17</sup> Woudhuizen 2002a: 126-127; cf. Best 1996-7: 116-117; the given readings of the inscription on the gold ring of Mavro Spelio are based on oral information by Jan Best; see further section II.6 below.

<sup>18</sup> Zgusta 1964, s.v.; note that the variant *ti-ti-ku-ni* in HT 96 may rather be Khurritic.

*a-ra-kū ku-qa-wa-sa-tū ma-lū au-ta-de pū-ni za*

“Arakos: the fringe; A(u)-ta-de covered this in Punic.”

	Bowl	Semitic	meaning
1.	<i>ku-qa-wa-sa-tū</i>	<i>guḥaššu, guḥaṣṣu</i>	“fringe”
2.	<i>ma-lū</i>	<i>malû, ml’</i>	“to fill, cover”
3.	<i>pū-ni</i>		“Punic”
4.	<i>za</i>	<i>z’</i>	“this”

The first of the two personal names, *Arakos*, constitutes a diminutive in *-ko-* of Luwian *ara-* “eagle”, whereas the second one, *Autade*, in variant form *Atade*, is paralleled for the inscription on a gold clothing-pin acquired by the archaeological museum of Hagios Nikolaos in 1980 (CR (?) Zf 1), see section II.4 below.

The Semitic nature of the language encoded in Linear A could be further underlined by yet some more indications of a product, like *ku-mi-na* “cumin” (Best 1972a: 29), *qi-tu-ne* “linen” (Best 1975: 53-54) and *sa-sa-me* “sesam” (Meijer 1982: 131), but these are typical “Wanderwörter” and hence do not contribute very much to the argument by themselves.

It should be stressed, however, that, notwithstanding the evidence that Linear A notates a Semitic language presented above, the work on Linear A is still unfinished, leaving a number of longer inscriptions still to be interpreted. To this comes, that even in the present state of our knowledge, it is clear that Semitic is not the only language recorded in the Linear A tablets, because there are words and forms which defy any attempt at elucidation along this line of approach. Thus, we have seen that the indication of a functionary in tablet HT 31, *mi-ti-sa*, originates from Luwian *miti(a)-* “servant”, and in doing so bears testimony of the Indo-European nominative singular ending *-sa*. Similarly, the indication of a functionary in HT 104, *ta-pa*, is likely to be based on the Luwian root *tapar-* “to rule”. In the same tablet, the personal names are characterized by a dative singular ending in *-ti*, which Best explained as Khurritic because one of the

names, *da-ku-se-ne-*, strikingly recalls Khurritic *Taku-šenni*.<sup>19</sup> The closest comparative evidence, however, is provided by Linear C *te-lu sa-ne-me-ti* “delivery to Sanemas” in the text of the Enkomi cylinder seal inv. no. 19.10, lines 25-26.<sup>20</sup> Considering the otherwise Luwian nature of the grammatical features of this text,<sup>21</sup> it therefore seems more likely that we are dealing here with the Luwian dative singular in *-ti* as attested in the realm of the pronoun<sup>22</sup>—which in the peripheral Luwian dialects of Crete and Cyprus apparently had penetrated the realm of the noun. Furthermore, the heading of HT 28a consists of the expression *a-si-ya-ka u-mi-na-si*, of which the first element shows an ethnic formation in *-ka* related to Lydian *-k* as in *Šfardak* “from Sardis, Sardian”, and the second element constitutes an adjectival derivation of Luwian *umina-* “town”. Finally, the Hagia Triada tablets are characterized by the transaction term *PI* for deliveries, which recalls forms of Luwian *piya-* “to give”, used in exactly the same manner in the text of the Kululu lead strips.<sup>23</sup>

The key for understanding the presence of Luwianisms in an otherwise Semitic bureaucratic language may be provided by the evidence of the personal names. As observed by Jon Billigmeier (1970), personal names of Luwian type, or Anatolian more in general, are much more prolific in the Linear B texts from Knossos than Semitic ones. In fact, the situation with the language in Linear A is neatly reflected in the Egyptian evidence on the language of the Keftiu (= Cretans). Thus, in an exercise of writing Keftiu names on a writing board dating from the early 18th dynasty, we can find the sequence *ikšššw bn n dššbr*, in which the second name, for its correspondence to Lycian *Daparas*, is clearly of Anatolian type, but the vocabulary word in the middle can only be surmised to render Semitic *bn* “son”. Similarly, in a Keftiu spell against the Asiatic pox from a medical papyrus probably dating from the reign of Amenhotep III (1390-1352 BC), running as follows: *sntikšpwywšyym ntiirkškr*, the divine names Santas, Kupapa, and Carian Tarkhu(nt) are all of Luwian type,

<sup>19</sup> Best & Woudhuizen 1988: 115, note 33.

<sup>20</sup> Woudhuizen 1992a: 96; 115; Woudhuizen 2006a: 44-45 or van Binsbergen & Woudhuizen 2011: 224-225.

<sup>21</sup> Woudhuizen 1992a: 94-119.

<sup>22</sup> Woudhuizen 2015a: 41; 247-248.

<sup>23</sup> Woudhuizen 2015a: 159-167. For an overview of Luwian elements in Linear A, see Woudhuizen *forthc.* (second section).

but the vocabulary words *wʒy* (*waya*) and *ʾym ʿn* (*ʾayaman*) receive meaningful interpretation on the basis of their etymological relationship to Semitic *wy* “and” and *ʿimmanu* “with us” (as in the Biblical *ʿimmanuʿel* “with us god”).<sup>24</sup> As it seems, then, the Luwianisms in Linear A are likely to be regarded as slips of the pen of Luwian scribes using Semitic in their administrative documents and dedicatory inscriptions as a *lingua franca*!

But even with the recognition of some Luwianisms in texts basically conducted in the Semitic language we have not yet fully exploited the language situation in Linear A. A Linear A inscription on a Minoan steatite vessel from Kythera (KY Za 2), dated *c.* 1600 BC, reads *da-ma-te*, which is plausibly interpreted as an occurrence of the divine name *Dēmētēr*.<sup>25</sup> Now, according to the most plausible analysis this divine name bears testimony of the Proto-Indo-European (= PIE) roots *\*gda-* “earth” and *\*méh<sub>2</sub>tēr-* “mother”, and hence must originate from an Indo-European language other than the Anatolian ones, which definitely lack a reflex of the given root for “mother”. As the Greek reflex of *\*gda-* is *gē* or *ga*, attested already for the divine name *ma-ka /Mā Gā/* “mother earth” in Linear B texts from Thebes, this language also seems to be excluded.<sup>26</sup> By means of deduction, then, only the pre-Greek Pelasgian language comes into consideration for the origin of the divine name *Dēmētēr*, which inference can be backed up by mythical evidence according to which the cult of the goddess is particularly associated with Pelasgians.<sup>27</sup> The same line of approach might also hold good for the Linear A inscriptions on a gold and silver double axe from Arkalokhori (AR Zf 1-2), which read *i-da-ma-te*, and likewise most plausibly bear the testimony of a divine name based on the PIE root *\*méh<sub>2</sub>tēr-*, be it this time in combination with a reflex of the likewise PIE root *\*wid<sup>h</sup>u-* “tree” as a reference to the central Cretan mountain *Ida*;<sup>28</sup> note in this connection that Pelasgians are recorded among the population groups of Crete by Homeros,

<sup>24</sup> Woudhuizen 1992a: 1-10; Woudhuizen *forthc.* (first section); see section I.1.1 and Fig. 2 above.

<sup>25</sup> Duhoux 1994-5: 290; Owens 1996a; Kaczyńska 2002: 139.

<sup>26</sup> Aravantinos, Godart & Sacconi 2001: 393.

<sup>27</sup> Woudhuizen 2006a: 143-146 or van Binsbergen & Woudhuizen 2011: 321-324; see section III.1 below.

<sup>28</sup> In line with Elwira Kaczyńska’s (2002) analysis, Krzysztof Witczak and Ignacy Danko, as they kindly inform me, prefer derivation of the element *i-da-* from PIE *\*yud<sup>h</sup>-* “battle, fight, combat”, cf. Pokorny 1959: 511.

*Odyssey* XIX, 177. However, if Elizabeth Pierce Blegen is right in her dating of the double-axes to Late Minoan II on the basis of “Palace Style” influence in their decoration, a Greek attribution—be it through a non-Greek medium<sup>29</sup>—also belongs to the possibilities.<sup>30</sup> At any rate, it seems unwise to focus on these latter inscriptions to the extent that the language of Linear A is hailed as the earliest evidence for Indo-European:<sup>31</sup> as I hope to have shown, that is a *reductio ad absurdum* of the actual language situation in Linear A, and a grossly misinforming one at that!

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<sup>29</sup> Note that in Greek reflexes of PIE \**wid<sup>h</sup>u-* the *wau* happens to be preserved, as in the Knossian MNs *wi-da-ka-so*, *wi-da-ma-ro*, and *wi-da-ma-ta<sub>2</sub>*, see section III.2, esp. note 43 below.

<sup>30</sup> Vandenabeele 1985: 5; cf. Kaczyńska 2002: 137-410.

<sup>31</sup> Owens 2000: 253; cf. his further works cited in the bibliography.

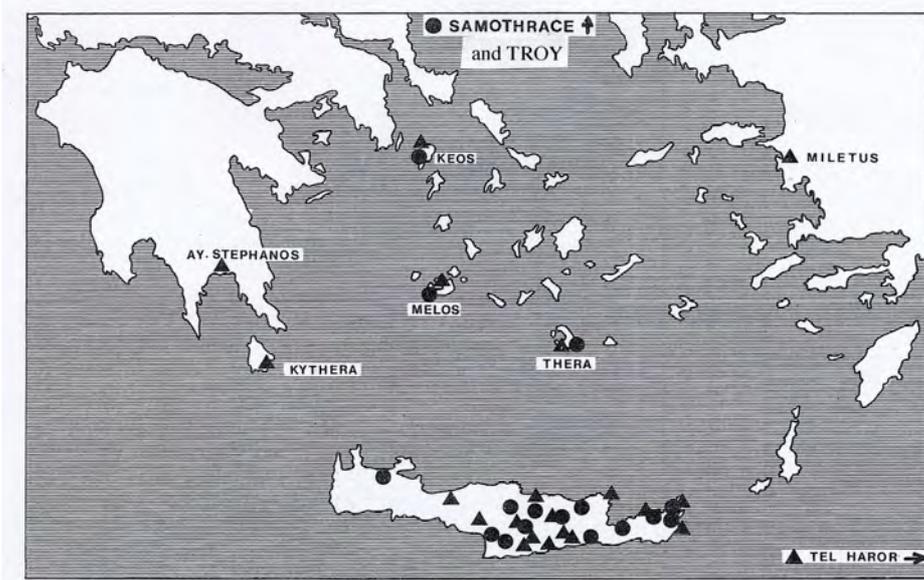


Fig. 54. Distribution of Linear A inscriptions (after Niemeier 1996: 99).

	a	e	i	u
d	𐀀	𐀁	𐀂	𐀃 𐀄
y	𐀅	𐀆	𐀇	𐀈
k	𐀉	𐀊	𐀋	𐀌 𐀍
l				𐀎 𐀏
m	𐀐	𐀑	𐀒	𐀓 𐀔
n	𐀕	𐀖	𐀗	𐀘 𐀙
p	𐀚 𐀛		𐀜	𐀝 𐀞 𐀟
q	𐀠	𐀡	𐀢	𐀣
r	𐀤	𐀥	𐀦 𐀧	𐀨 𐀩
s	𐀪	𐀫	𐀬	𐀭 𐀮
t	𐀯	𐀰	𐀱 𐀲 𐀳	𐀴 𐀵
w	𐀶	𐀷	𐀸	
z	𐀹	𐀺	𐀻	𐀼 𐀽
	𐀾 au			

Fig. 55. Linear A grid (late sign forms).

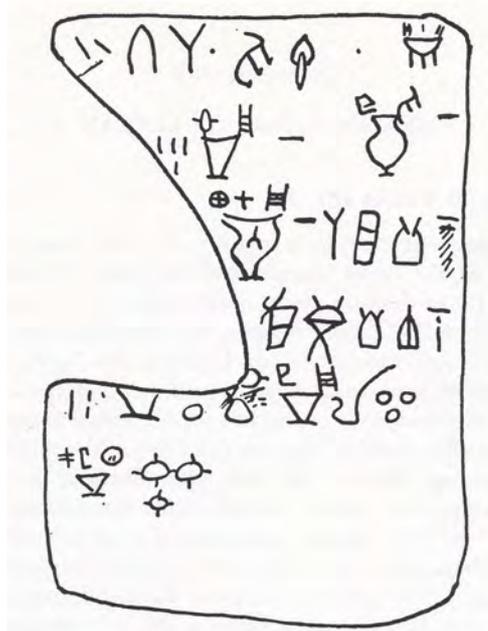


Fig. 56. Tablet HT 31 (from Best & Woudhuizen 1989: 2).

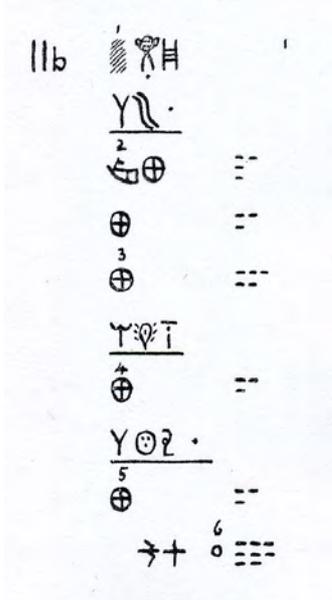


Fig. 57. Tablet HT 11b (from Brice 1961: Pl. IIa).

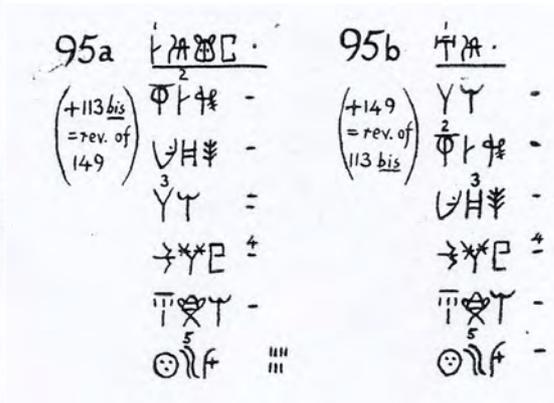


Fig. 58. Tablet HT 95 (from Brice 1961: Pl. VIIIa).

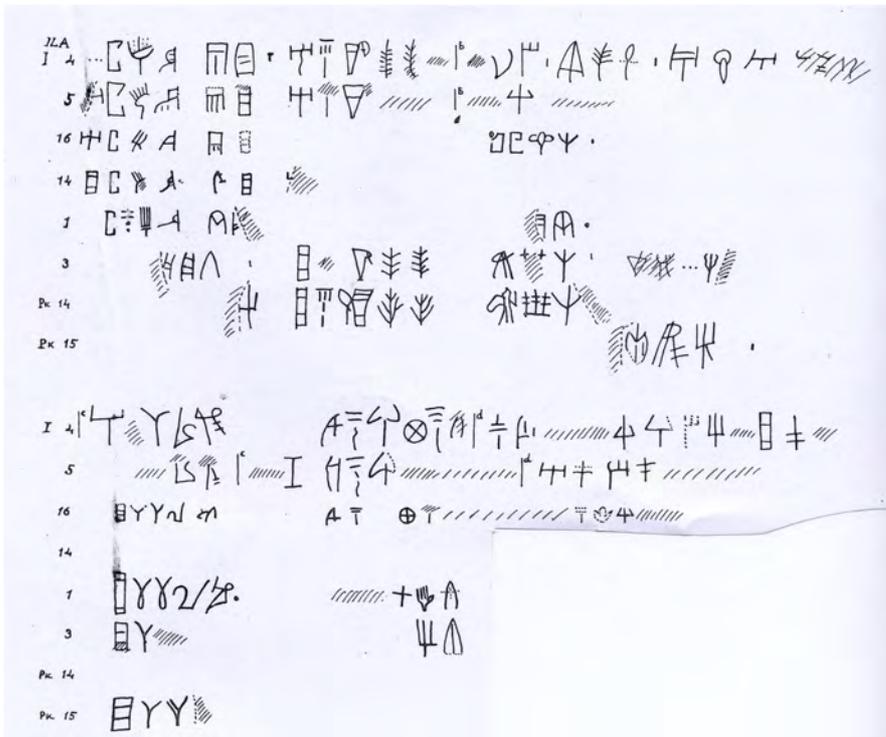


Fig. 59. Various versions of the libation formula (from Meriggi 1974a: 91).

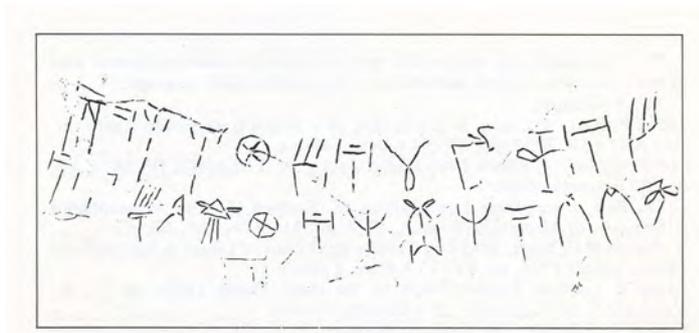


Fig. 60. Inscription on a pithos from Epáno Zakro (from Best 1982-3: 10).

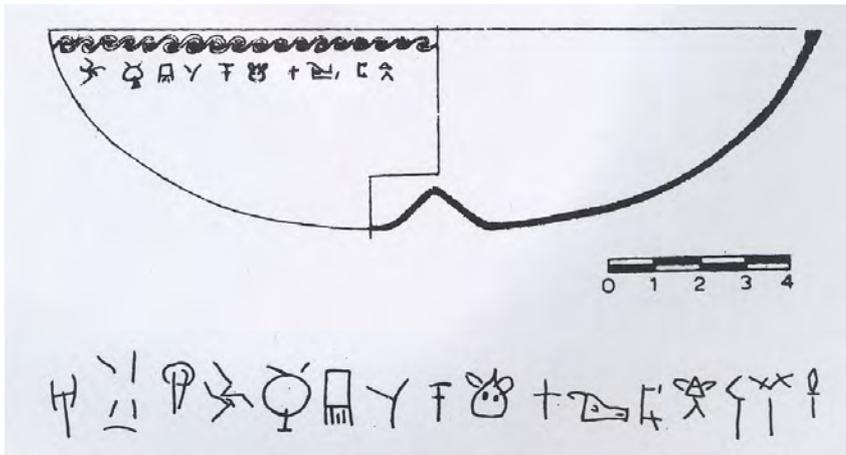


Fig. 61. Inscription on a bowl from Kophinas Monophatsi (from Best 2000: 35).

## II.2 ORIGINS OF THE LINEAR A SIGNARY\*

As the Linear A signary partly originates from Cretan hieroglyphic, it comes as no surprise that we can distinguish here as well signs originating on the one hand from Luwian hieroglyphic and on the other hand from Egyptian hieroglyphic. A glance at figures 62-63, however, suffices to show that, in the relative sense, the Egyptian component of the Linear A signary is, with 19 instances, more prominent than its Luwian hieroglyphic counterpart with only 13 instances. To this comes that also the original values of the Egyptian signs were maintained to an astonishing degree, though it must be admitted that the value *nwa* of the sign L114, expressing negation, is more likely to be derived from Luwian *nawa* “not” than its Egyptian counterpart *n*.

The origin of L56 *pi* from the Egyptian hieroglyphic “bee” sign, L2 *bity* as represented in Fig. 62 below, is only understandable against the backdrop of the fact that the “bee” (E86) in Cretan hieroglyphic is on the one hand mixed-up with the “spider” (E85) and on the other hand tends to be depicted from the top (CHIC021). Especially the latter variant renders excellent services in linking L56 *pi* with its Byblian counterpart G2 *pí* (see Fig. 64). On the development of the Cretan hieroglyphic “spider” (E85) into L56 *pi*, see Brice 1991 with Fig. as reproduced in Woudhuizen 1997: 107, Fig. 8 and Woudhuizen 2011c: 292, Fig. 8. In connection with L23 *za* it deserves our attention that in form this is obviously related to the Egyptian “sandal-strap” S34 for the expression of the value *nh*, but as far as its value is concerned it may reasonably be argued that this originates from a mixing-up with the latter’s look-alike “rolled up herdman’s shelter of papyrus” V18 *sʔ* or *zʔ*. Furthermore, in two instances, that of L102 *de* and L126 HOMO, the relationship with the given Egyptian hieroglyphic signs is only understandable when their provincial Byblian variants are taken into consideration: a vessel in case of “reed-floats” T25 and the lower part of a striding official in case of “hoe” U6 (see Fig. 62). For the origin of L34 *pu*<sub>2</sub> from Egyptian hieroglyphic “harp” sign Y7 *bint*, which I have added to my list as compared to Woudhuizen 2009: 119-120, Figs. 34-35, I am indebted to Best in Best & Woudhuizen 1988: 13, Fig. 17. Finally, the relationship of L76 *mi*, which depicts an arm pointing to the person it

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\* This section is a reworked and updated version of Woudhuizen 2009: section II.1 (pp. 117-123).

belongs to, to the head of a lady in Luwian hieroglyphic (LH \*15) as presented in Fig. 63 below only makes sense if we realize that a missing link is provided by the depiction of a woman pointing to herself as in case of PD06 from the signary of the discus of Phaistos (see Woudhuizen 2009: 121, Fig. 36).

A problem is posed by the analysis of the comparative data with respect to L100a. When turned upside down, it clearly originates from Egyptian hieroglyphic A21 *sr* “noble, official”, depicting a striding man with a stick in his right hand. Note that in the process of simplification, only the lower part of the body remains, in like manner as it is the case with the related Luwian hieroglyphic \*80 *SARU* (= basic value of the sign if we leave out the enclitic \*391 *mi, má, m*). Nevertheless, there can be little doubt that L100a renders the value of the vowel *i*. The problem becomes immanent in connection with the related Cretan hieroglyphic sign E27, which in the profane formula 7 likely refers to officials and hence appears to render the value *sr*, but which in the texts on clay bars, in line with its formal relationship to PD22 *i* from the Phaistos disk (see Fig. 26), rather seems to express the root of the Luwian hieroglyphic demonstrative pronoun *i-* (see sections I.6-7 above). The shift in value of this sign from original *sr* or *SARU* to secondary *i* may perhaps be explained by its mixing-up with the Egyptian symbol for walking, D54, which also depicts the lower part of the body and expresses the value *í*. It is true that this latter sign developed in Linear A into L81a *ye*, but this does not exclude the possibility of the transference of its value to the of origin closely similar L100a. This latter inference can even be enhanced if we realize that to this complex of closely similar signs also the Linear A ideogram L126 HOMO belongs, which originates from the provincial variant of Egyptian hieroglyphic U6 *mri*, depicting a striding man with a long skirt and denoting an official in like manner as the aforesaid A21 (note that the variant b of L126 seems to depict a striding man in a long skirt who carries a stick). In any case, it is clear that the hieroglyphicized variant of Linear A L44 *e* depicts a striding man in a long skirt and that this sign therefore also belongs to the given close-knit group of signs, its value in this case being likely derived from that of L81a *ye* by means of the dropping of the glide.

A third component of the Linear A signary is formed by signs corresponding to counterparts in the Byblian proto-Linear script (see Fig. 64). As the latter script, with only a very few exceptions, lacks signs originating from Luwian hieroglyphic, it may safely be deduced that Linear A signs corresponding to a Byblian counterpart were

taken over from the Byblos script and not vice versa, for it is unlikely to assume that signs of a Luwian hieroglyphic background would have been purposely filtered out by the Byblian scribes (Woudhuizen 2007: 709-710). In my treatment of the Byblos script of 2007, I have argued that this script was developed in the period of the upheavals caused by chariot gangs invading the Levant from *c.* 1730 BC onwards. As a result of these upheavals, namely, Byblos lost its regular contacts with Egypt and there emerged a dearth of professional scribes which vacuum was filled by local scribes or their colleagues from other regions, like, for example, Lycia, as in the case of *Kwkwn*, who was the seal-bearer of the Byblian king Abishemu II. These less experienced scribes, then, were responsible for the development of a provincial style of writing in Egyptian hieroglyphic, the variant signs of which were subsequently incorporated into the local Byblian pseudo-hieroglyphic and radiated to Cretan Linear A (Woudhuizen 2007: 697; 754, Fig. 12). On account of this fact, then, the development of Linear A may safely be assigned to an advanced stage of Middle Minoan II, which coincides with the dating of the earliest Linear A inscriptions to the end of this period as a *terminus ante quem*.

	LA	value		EgH	value
L100a		<i>i</i>	A21		<i>sr</i>
L114		<i>nwa</i>	D35		<i>n</i>
L81a		<i>ye</i>	D54		<i>i(w)</i>
L95		<i>ma</i>	E13		<i>miw</i>
L56		<i>pi</i>	L2		<i>bity</i>
L54		<i>re</i>	M9		<i>sšn</i>
L82		<i>WAINU, wa</i>	M43		<i>irp</i>
L31		<i>sa</i>	O30		<i>shnt</i>
L32		<i>ya</i>	O31		<i>3</i>
L80		<i>ū</i>	Q1		<i>ws</i>
L39		<i>tū</i>	R11		<i>dd</i>

Fig. 62. Linear A signs originating from Egyptian hieroglyphic.

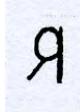
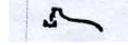
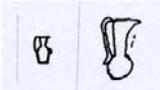
	LA	value		EgH	value
L23		<i>za</i>	S34		<i>ḥnh</i>
L102		<i>de</i>	T25		<i>dbꜣ</i>
L126		HOMO	U6		<i>mri</i>
L88		<i>tī</i>	U21		<i>štp</i>
L85		TALENTUM, <i>qa</i>	U38		<i>mḥꜣt</i>
L103		<i>ki</i>	W9		<i>ḥnm</i>
L93		<i>du</i>	Y3		<i>mnhd</i>
L34		<i>pu<sub>2</sub></i>	Y7		<i>bint</i>

Fig. 62. Linear A signs originating from Egyptian hieroglyphic (continued).

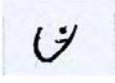
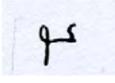
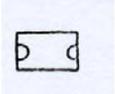
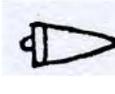
	LA	value		LH	value
L76		<i>mi</i>	15		<i>mi</i> <sub>4</sub>
L27		<i>mu</i>	107		<i>MUWA, mu</i>
L53		<i>ra</i>	130-3		<i>ARA, ar, ra</i>
L92		<i>te</i>	151		<i>TELIPINU</i>
L22		<i>lū</i>	186		<i>*luk-, lu</i>
L101		<i>zu</i>	191		<i>TIWATA, ti</i> <sub>6</sub>
L69		<i>lu</i>	193		<i>ARMA</i>
L1		<i>pa</i> <sub>3</sub>	247		<i>PARNA, pa</i> <sub>5</sub>
L29		<i>ka</i>	292		<i>ḤARSANTA(N)</i>
L36		<i>zi</i>	312		<i>ZITI, zí</i>

Fig. 63. Linear A signs originating from Luwian hieroglyphic.

	LA	value		LH	value
L45		<i>kū</i>	329, 1		<i>ḥwá, ḥù?</i>
L103		<i>ki</i>	346		<i>kí</i>
L78		<i>ti</i>	499		<i>tí<sub>8</sub></i>

Fig. 63. Linear A signs originating from Luwian hieroglyphic (continued).

	LA	value		BS	value
L2		<i>pa</i>	E17		<i>pa</i>
L22		<i>lū</i>	G17		<i>lu</i>
L24		<i>ke</i>	F6		<i>ke<sub>1</sub></i>
L26		<i>na</i>	E15		<i>na</i>
L31		<i>sa</i>	B11		<i>sa</i>
L32		<i>ya</i>	D5		<i>ya<sub>3</sub></i>
L39		<i>tū</i>	B3		<i>tu</i>
L52		<i>a</i>	B12/E1		<i>a</i>
L54		<i>re</i>	B5		<i>re</i>
L56		<i>pi</i>	G2		<i>pí</i>
L60		<i>ni</i>	B13		<i>ni</i>

Fig. 64. Linear A signs originating from the Byblos script.

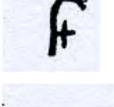
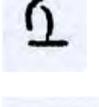
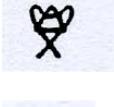
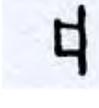
	LA	value		BS	value
L75		<i>wa</i>	D3		<i>wa</i>
L78		<i>ti</i>	G13		<i>ti</i>
L81a		<i>ye</i>	F1		<i>ye</i>
L95		<i>ma</i>	A21		<i>ma</i>
L97		<i>u</i>	G4		<i>u</i>
L102		<i>de</i>	D9		<i>de</i>
L103		<i>ki</i>	E10		<i>ki</i>
*140		<i>AES</i>	D5		<i>AES</i>

Fig. 64. Linear A signs originating from the Byblos script (continued).

### II.3 VARIOUS VERSIONS OF THE LINEAR A LIBATION FORMULA, AGAIN, BUT NOW IN THEIR ENTIRETY\*

As long ago as 1981 Jan Best succeeded to translate most of the repetitive elements of the Linear A libation formula on the basis of their correspondence with Semitic counterparts. His result may be summarized as follows: (y)a-ta-nū-tī wa/u-ya (y)a-di ki-te-te (...) ya-sa-sa-ra./-me (...) i-pi-na-mali-pi-na-mi-na (...) “I have given and my hand made an expiatory offering (...), oh Asherah, (...) please give me (...)”. This translation is based on the analysis of (1) (y)a-ta-nū-tī as the 1st pers. sg. m./f. in -tī of the perfect of the verb  $\sqrt{ytn}$  “to give”, (2) wa-ya as the coordinate conjunction corresponding to later Phoenician wy “and”, (3) ya-di as the combination of the noun (f.) yd “hand” with the enclitic of the pronoun of the 1st pers. sg. -ī “my” attached to it, (4) ki-te-te as the 3rd pers. sg. f. in -t of the perfect of the verb  $\sqrt{hṭ}$  “to offer in compensation”, (5) ya-sa-sa-ra./-me as a divine name corresponding to Biblical *Asherah* characterized by the vocative particles y- and -m, and (6) i-pi-na-ma as a combination of ibī “please” with the 2nd pers. pl. m. or f. of the imperative *innā* of the verb *nadānu* “to give” (cf. von Soden 1955: 8\*, Paradigmen II, §7)<sup>1</sup> and the dative of the enclitic pronoun of the 1st pers. sg. -am/-m/-nim (cf. Huehnergard 2000: 606) attached to it.<sup>2</sup>

Owing to my work on the Byblos script, which provides us with evidence of a Semitic dialect most closely related to that of Linear A, I am now in the position to fill in the blanks left by Best in his translation of the libation formula, and as such to demonstrate the basic correctness of his identifications. To this aim, I have selected six inscriptions in sum which are either reasonably well preserved or otherwise emendable on the basis of repetitive elements, namely:

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\* This section is a reworked and updated version of Woudhuizen 2009: section II.2 (pp. 124-141).

<sup>1</sup> I am indebted to the Assyriologist Theo J.H. Krispijn for helping me out with this reference.

<sup>2</sup> Best 1981a; Best 1981b: 17-31. For the third and final combination, see Best 1981b: 46; note that the variant *i-pi-na-mi-na* probably shows the variant *-nim* of the enclitic pronoun by metathesis of [n] and [m] and that the variant †*i-pi-na-mi-na-si* does not exist as the syllable *si* is clearly separated from the preceding sequence by a punctuation mark in Palaikastro PK Za 10 and, more in general, can definitely be shown to be an integral part of the recurrent combination *si-rū-te* directly following *i-pi-na-ma* or *i-pi-na-mi-na*.

three written on libation tables from peak-sanctuaries at Palaikastro (PK Za 8 and 11) and Iouktas (IO Za 2), one on a bowl also from Iouktas (IO Za 6), one on a ladle from a peak-sanctuary at Troullos (TL Za 1), and finally one on a rectangular base from a peak-sanctuary at Kophinas (KO Za 1). As the peak-sanctuaries in which they were found were destroyed at the end of Middle Minoan III (c. 1600 BC), all these inscriptions confront us with early evidence of Linear A, closest in time to the texts in the related Byblos script, which date from an advanced stage of the Middle Bronze Age (c. 1700 BC) (see Woudhuizen 2007).

The transliteration of the texts is based on their edition in the corpus of Linear A texts by Louis Godart and Jean-Pierre Olivier (= GORILA), volumes 4 (1982) and 5 (1985); in order to facilitate the reader, the drawings of the texts presented there are reproduced here in Figs. 65-70 below and I have added to this in the above a grid of the Linear A syllabary as Fig. 55.

**PK Za 11** (libation table)

*a-ta-nū-tī wa-ye / a-di ki-te-te*  
*ḏu-[pū] da / pi-te ri / a-kū a-ṇe*  
*A-sa-sa-ra.me / <sup>3</sup>*

*u na rū -ka-na-ti / i-pi ṇa -mī-ṇa*  
*[/] si-rū-[te] i-na -ya pa-qa*

“I have given and my hand has offered this inscribed table (in) the temple to the brother in (the service of You), oh Asherah.”

“(If it will be) in (the hands of) Your official, please give me an excellent (reward) in (so far) my reason (for offering is concerned).”

*Comments*

The two signs following *ki-te-te* and preceding *da* are heavily damaged, but the first of these can on the basis of inspection of the photograph definitely be identified as L93 or AB51 *du*, as suggested by Olivier and Godart in one of their reconstructions presented in GORILA 4, p. 34 and GORILA 5, p. 143. If we realize, then, that the verbal form *ki-te-te* is followed by *du-pu<sub>2</sub>* in PK Za 8 and 15, it lies at hand to reconstruct the same form in the present context—even though the remains of the second sign here exclude the possibility of reading L34 or AB29 *pu<sub>2</sub>* and we have to assume a writing variant with L21 or AB11 *pū*. On account of the formal resemblance of *du-pū*

<sup>3</sup> For the reading of a dot which distinguishes the final syllable *me* in the sequence *A-sa-sa-ra.me* as a separate element, see section II.9, note 6.

to Semitic *tuppu(m)* or *tuppu(m)* “tablet, inscription” (*Ass. Dict.*, s.v.), we are likely to be confronted here with an indication of the object, an inscribed offering table (though one would have expected it to be in the accusative sg. in *-a* rather than the nominative sg. in *-u*). If so, the following *da* in view of its correspondence to the Byblian demonstrative forms *da* or *de* (cf. Ugaritic *d* and Phoenician *z < \*d*) can only come into consideration as the correlating demonstrative “this”, postpositioned here in like manner as the more developed form *za* in KO (?) Zf 2, presumably dating from the end of Late Minoan II (c. 1400 BC) or even that of Late Minoan III A1 (c. 1350 BC) (see Best 2000).<sup>4</sup> The next entry, *pi-te*, no doubt renders a form of Semitic *bītu(m)* “house, temple, etc.” (*Ass. Dict.*, s.v.), and, even though a preposition is lacking, as such obviously indicates the location where the inscribed libation table in question is placed, viz. in the temple (the final vowel [e] appears to be a mute one). The phrase subsequently continues to specify that in the given location the object in question is actually handed over *ri a-kū* “to the brother” *a-ne A-sa-sa-ra.me* “in (the service of) Asherah”, in which the element *ri*, which is nothing but a writing variant of *re* as in PK Za 8, etc., corresponds to the Byblian preposition *le* (= Ugaritic *l* and Phoenician *l*), the noun *a-kū* cannot be dissociated from Semitic *aḥu(m)* “brother” or “colleague, associate”, specifically used for a religious functionary, the *aḥu rabû* (*Ass. Dict.*, s.v.), and the element *a-ne* recalls the Byblian preposition (*a*)*na* “in” (cf. Akkadian *ANA*), whereas the fact that the divine name Asherah is characterized by the vocative particle *-m* suggests that the dedicator addresses the deity directly, hence our emendation of “You” in the translation.

The sequence in between the already known elements *A-sa-sa-ra.me* and *i-pi na -mi-na*, namely *u-na-rū-ka-na-ti*, is also of a repetitive nature and reappears in the other inscriptions discussed here in shortened variant form *u-na-ka-na-si*, i.e. without the third syllable *rū*. As to the elucidation of this sequence, Best has rightly drawn attention to Akkadian *a-na -ka-nā-šū-nu* “for You” (Best in Best & Woudhuizen 1989: 31). In reality, however, we more likely appear to be dealing here with the Old Babylonian variant of the 2nd pers. pl.

<sup>4</sup> As to the dating of KO (?) Zf 2 it is relevant to note that this inscription is written by the scribe *Autade*, who, in variant form *Atade* is also responsible for CR (?) Zf 1. Now, this latter inscription is provisionally assigned to Late Minoan IA in GORILA 5, p. 83, but *in ductus* it comes closest to KN Zf 13, which, though assigned to Middle Minoan III or Late Minoan IA in GORILA 5, p. 109, in reality dates from Late Minoan II, see Woudhuizen 2006b: 61-62 and cf. section II.6 below.

m. *-kunūti* (A) or *-kunūsi* (D) or, in the context more likely, its feminine equivalent *-kināti* (A) or *-kināsi* (D) (Huehnergard 2000: 606; cf. Lipiński 2001: 314-315), even though these forms are rather to be expected on verbs than on nouns and prepositions as happens to be the case here.<sup>5</sup> Now, the additional element *rū* in the present sequence is revealing, as it recalls Sumerian LÚ “man, official” and leads us to the conclusion that reference is made to an *official in the service of the goddess* (the latter addressed in the plural out of reverence) in like manner as in the preceding section (but note that the vowel [a] instead of [i] in the enclitic pronominal form remains problematic). The initial *u-na*, finally, I analyze in line with the Byblian evidence not as a variant of the preposition *ana* characterized by *a/u*-vowel change (so Best) but as a compound of the coordinate conjunction *u* “and” or “:” with the shorthand variant *na* of the preposition *ana* “in”. At any rate, it is clear that from the moment that the given offering is in the hands of the official of the goddess, which means that it is actually offered to the goddess, that from that moment onwards the dedicator him- or herself hopes to get something in return according to the well-known *do ut des*-principle.

What exactly the dedicator hopes to get in return is specified in the sequence following *i-pi na -mi-na*. This starts with the damaged, but for its repetitive nature, emendable combination *si-rū-te*, which can positively be identified as a nominal derivative of the adjective *šīru* “first-rank, outstanding, august, excellent” (*Ass. Dict.*, s.v.; cf. *AHW*, s.v., esp. *ši-ru-ta* as dispensed by the gods) and as such no doubt refers to an excellent reward. This excellent reward, then, is subsequently further specified by the sequence *i-na-ya-pa-qa*, in which we can recognize the Akkadian preposition *INA* “in”, here with the enclitic pronoun of the 1st pers. sg. *-ī* “my” attached to it, and the likewise Akkadian noun *pakku(m)* “wits, reason, sense” (*Ass. Dict.*, s.v.), occurring here in the accusative sg. in *-a*. To all probability the latter noun is used in the present text in its literal sense, in which case the dedicator limits the reward hoped for to the *purpose* of his offering (one can think of major achievements in life like getting a

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<sup>5</sup> My thanks are due to the Assyriologist Theo J.H. Krispijn for kindly informing me that, even though in Akkadian all prepositions originally ruled the genitive, the use of the accusative and dative forms as attested here is of no consequence for texts from the Middle Babylonian period onwards, as the genitive forms at least in the realm of the independent pronoun tend to coincide with the accusative ones, whereas in the same realm more in particular in expressions of possession with the preposition *ANA* the use of the dative becomes very common, see, for example, Rainey 1996: 14-15.

child, a better job, a cure from disease, or whatever else may be of importance to the dedicator at the time).

**PK Za 8** (libation table)

*/ pa<sub>3</sub>-ye / ya -na ki-te-te du-pu<sub>2</sub>  
re / tu-me -nū yA-sa-[sa-ra-me]*

“And our hand has also offered  
the inscribed table to our deputy,  
oh Asherah.”

*u na <rū> -ka-na-ṣi i-pi [na -na-si  
si-rū-te]*

“(If it will be) in (the hands of)  
Your (official), please give us  
an excellent (reward).”

*Comments*

The initial part of this inscription is lost beyond the means of repair, but what remains of it starts with the coordinate conjunction *pa*, corresponding to Byblian *pa* “and also”, which has the element *-ye* attached to it in like manner as *wa* in the preceding text. What follows appears to be a variant of the expression in the previous inscription, in which case the open syllable *ya* no doubt phonetically represents the closed syllable */yad/*,<sup>6</sup> but now conducted in the 1st pers. pl., characterized by the enclitic pronoun *-na* (as in *ya(d) -na*) or *-nū* (as in *tu-me -nū*) “our”. In the latter case, the noun in question strikingly recalls Sumerian DUMU “son; junior official, deputy” (in a variant with mute vowel [e]), so that the inscribed libation table (*du-pu<sub>2</sub>*) is actually handed over (*re*)<sup>7</sup> here to a temple functionary in like manner as it is the case in the previous inscription. If we are right in our

<sup>6</sup> Note that the defective writing of closed syllables is a well-known feature of the related Linear B, but demonstrably also now and then affected Linear A in view of *pi-pi*, phonetically representing */bibil/* as corresponding to Semitic *bibil* “as a gift”, and the honorific title *ta-pa*, phonetically representing */tapar/*, a reflex of Anatolian *tapar-* “to rule”, see Woudhuizen 2006b: 44; 51 or section II.1 above.

<sup>7</sup> Note that the sequence *du-pu<sub>2</sub> re* is also attested for yet another, although less well preserved, inscribed libation table from Palaikastro, PK Za 15, as well as for the legend of a fragmentarily preserved pithos from Phaistos (HT Zb 160) reading: *pa-ta-da du-pu<sub>2</sub> re* [, of which the first element *pa-ta-da* for its recurrence in PH 31a.3 can positively be identified as a personal name so that it may safely be translated as follows: “*Pa-ta-da* (: or has given) the inscribed (object) to [MN of the recipient]”. The attempt by Miguel Valério (2007) to explain this sequence as one word showing a reflex of the Anatolian root *tapar-* “to rule” can only be allowed for by the utter neglect of its proper context. Justifiably, therefore, the author has put forward his proposal with a question mark in the title. Note that it is symptomatic of this kind of suggestions that the author appears not to be acquainted with the Semitic solution to, in this particular case as far as PK Za 15 is concerned, the preceding *(y)a-di ki-te-te* as ventilated by Best since 1981.

analysis of this inscription as a variant being conducted in the 1st pers. pl., the *ut des*-part of the inscription should be reconstructed as *i-pi na -na-ti/si* “please give us” (cf. Lipiński 2001: 314-315).

**TL Za 1** (ladle)

<i>a-ta-nū-tī wa-ya / ū-su-qa re /</i>	“I have given and prostrated
<i>yA-sa-sa-ra-me</i>	myself for (You), oh Asherah.”
<i>u na &lt;rū&gt; -ka-ṇa-ṣi [i-pi] na -ma</i>	“(If it will be) in (the hands of)
<i>si-rū-[te] [vacat]</i>	Your (official), please give me
	an excellent (reward).”

*Comments*

The only deviation from the otherwise standard repertoire is formed here by the sequence *ū-su-qa*. This form renders the 1st pers. sg. m./f. of the past tense of the verb *šukênu(m)* “to prostrate oneself”, *uš-ki-in* or *uš-kin* “I prostrated myself” (*Ass. Dict.*, s.v.; cf. Friedrich 1991: 314 *ušken*, 3rd pers. sg. of the perfect of *šukênu*), so that the final open syllable *qa* no doubt phonetically represents the closed syllable /qan/ and the entire form must be read as *ū-su-qa(n)*. In Akkadian, the verb *šukênu(m)* can be used in combination with various prepositions, like *ANA* “to” or *maḥar* “before”; in accordance with this observation, its present occurrence in combination with *le* “to” may be considered a typical Byblian dialectal feature.

**IO Za 2** (libation table)

<i>a-ta-nū-tī wa-ya . ya-di ki-tu .</i>	“I have given and my hand has
<i>yA-sa-sa-ṛa-[me</i>	offered, oh Asherah.”
<i>u na &lt;rū&gt; -ka-na]-ṣi i-pi na -ma .</i>	“(If it will be) in (the hands of)
<i>si-rū-te . ta-na-ra-te</i>	Your (official), please give me
	an excellent (reward and) glory.”
<i>u ti -nu . nū da [            ] [vacat]</i>	“And in our (temple) this (...).”

*Comments*

The occurrence of *ki-tu* instead of regular *ki-te-te* has already been explained by Best (in Best & Woudhuizen 1989: 32) as an absolute infinitive, used for the 3rd pers. sg. m./f. of the perfect.

In connection with the part following the standard expression *i-pi na -ma* “please give me”, it is interesting to observe that regular *si-rū-te* is followed here asyndetically by *ta-na-ra-te*, the root of which may reasonably be argued to correspond to *tanattu(m)* (pl. *tanādātu*) “praise, renown, glory” (*Ass. Dict.*, s.v.), at least if one allows for rhotacism of medial [d].

The following sequence starts with *u-ti-nu*, which Best (in Best & Woudhuizen 1989: 32) tried to explain as a personal name. But it should be realized in this connection that the libation tables are for common use, and therefore unlikely to contain names of individuals (only the one time offering of the table itself may in principle come into consideration as a personal matter, but even in these instances a personal name is lacking). In my opinion, it is more likely that we are dealing with the coordinate conjunction *u* “and” or “:”, again, followed by the preposition *ti*, which corresponds to Byblian *t* “in, at” (cf. Phoenician *t* < Proto-Canaanite *\*itti*), which in turn has the enclitic pronoun of the 1st pers. pl. *-nu* attached to it. No doubt, to the resulting “and in our” we have to add the indication of locality as specified in PK Za 11, *pi-te* “temple”. The following *da* evidently confronts us with another instance of the demonstrative, after which one would expect the indication of the object, *du-pu<sub>2</sub>* “inscribed table” (cf. PK Za 8 and 11).

**KO Za 1** (rectangular base)

*a-ta-nū-tī wa-ya tu-rū sa .*

*du-rī re . Nū-da*

*A<sa-sa-ra-me> .*

*u na <rū> -ka-na-si . i-pi na -ma .*

*si-rū-te [vacat]*

“I have given and the third of my offering (will go) to Nut, oh Asherah.”

“(If it will be) in (the hands of) Your (official), please give me an excellent (reward).”

*Comments*

The only sequence in need of an explanation here is formed by *tu-rū sa . du-rī re . Nū-da*. Most easy to explain of this sequence is *du-rī*, which consists of the combination of the root of *dullu(m)* “work, etc.” with the enclitic pronoun of the 1st pers. sg. *-ī* “my”. On the analogy of Latin *opus* in a religious context (*Duenos*-vase inscription), there can be no doubt that the “work” in fact denotes an “offering”. In addition, the element *sa* corresponds to the Byblian preposition (or Akkadian genitive particle in general) *sa* “of”. This leaves us with *tu-rū* and *Nū-da*. Of these, *tu-rū* appears to have an Indo-European ring, if we think of Luwian *tar-* “3”, etc., whereas *Nū-da* can only come into consideration as a reflex of the Egyptian divine name *Nwt*, which is attested for Byblos in Egyptian hieroglyphic texts as an indication of the local *Ba‘alat* “Mistress”, who is none other than the daughter of Asherah, Ashtarte, or, in Cretan terms, *Ti-ni-ta* (= in fact the latter’s infernal aspect). If we realize, then, that, as duly attested by the Hagia Triada texts, Minoan religion centres on the worship of

a divine triad consisting of Asasara, Tinita, and Haddu, the present prescription makes perfect sense, indeed (see further section II.9 below).

**IO Za 6** (bowl)

*ta-na-nū-tī*

“I have given.”

*u ti -nu . nū na-ta-nū-ti<sub>6</sub> di-si-ka .*

“And in our (temple): now I have

*yA-sa-sa-ra-me .*

consecrated a table, oh Asherah.”

*Comments*

The only new elements here are *nū*, *na-ta-nū-ti<sub>6</sub>*, and *di-si-ka*. As rightly anticipated by Best (in Best & Woudhuizen 1989: 34), this sequence is likely to be split up into an introductory particle, a verb, and an indication of the object. Now, the element *nū* corresponds to the Byblian introductory particle *nu* “now”, presumably of an Indo-European background (Woudhuizen 2007: 734). Next, *na-ta-nū-ti<sub>6</sub>* is written here with a solar variant of L101 or AB79 *zu* in its, against the background of its origin from the Cretan hieroglyphic “eye” (= solar symbol, cf. the “all seeing sun”) sign CHIC005,<sup>8</sup> original function for the expression of the value *ti<sub>6</sub>* (cf. Fig. 63). Now, this form can only come into consideration as the 1st pers. sg. m./f. of the perfect of the verb *nadānu* “to give, offer” (*Ass. Dict.*, s.v.). And finally, the combination *di-si-ka* can be positively identified as the accusative sg. in *-a* of the noun *diškū* “a type of table” (*Ass. Dict.*, s.v.), no doubt referring to a libation table given to the temple alongside the bowl on which the inscription is written.

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<sup>8</sup> See section I.1.1 and Fig. 25 above, where CHIC005 corresponds to the Luwian hieroglyphic symbol of the sun-god, \*191 *TIWATA*, *ti<sub>6</sub>*, consisting of three pairs of eyes in columnar arrangement.

APPENDIX  
CORRESPONDENCES BETWEEN LINEAR A AND THE BYBLOS SCRIPT

LINEAR A	BYBLOS	MEANING
<b>divine name</b>		
1. <i>Nū-da</i>	<i>Nwt</i> (EH)	Nut (= Ba‘alat)
<b>vocabulary</b>		
2. <i>a-kū</i>	<i>a-ke-</i>	“brother”
3. <i>rū</i>	<i>lu</i>	“man; official”
4. <i>pi-pi, pi</i>	<i>pi<sub>1</sub>-pi<sub>1</sub></i> , etc.	“as a gift, offering”
5. <i>pi-te</i>	<i>pi<sub>1</sub>-tu, pi<sub>1</sub>-ta</i> (A)	“house, temple”
6. <i>sa-rī</i> (G)	<i>sa-re</i>	“king”
7. <i>du-pu<sub>2</sub></i>	<i>tu-pi</i> , etc. (G)	“tablet, inscription”
8. <i>√ytn</i>	<i>√ytn</i>	“to give”
<b>enclitic pronouns</b>		
9. <i>-ya, -i/ī</i>	<i>-ya, -ye</i>	“my”
10. <i>-nu, -na</i>	<i>-nu, -ni</i>	“our”
<b>demonstrative pronoun</b>		
11. <i>da</i>	<i>da, de</i>	“this”
<b>prepositions</b>		
12. <i>a-re</i>	<i>a-le</i>	“to”
13. <i>re, ri</i>	<i>le, re</i> , etc.	“to; over, etc.”
14. <i>ti</i>	<i>t</i>	“in, at”
15. <i>(a)na</i>	<i>(a)na</i>	“in; to”
16. <i>sa</i>	<i>sa</i>	“of”
<b>conjunctions</b>		
17. <i>wa/u-ya, wa-ye</i>	<i>wa/u-ya</i>	“and”
18. <i>u</i>	<i>wa/u</i>	“.”
19. <i>pa<sub>3</sub>-ye</i>	<i>pa</i>	“and also”
<b>particle</b>		
20. <i>nū</i>	<i>nu</i>	“now”

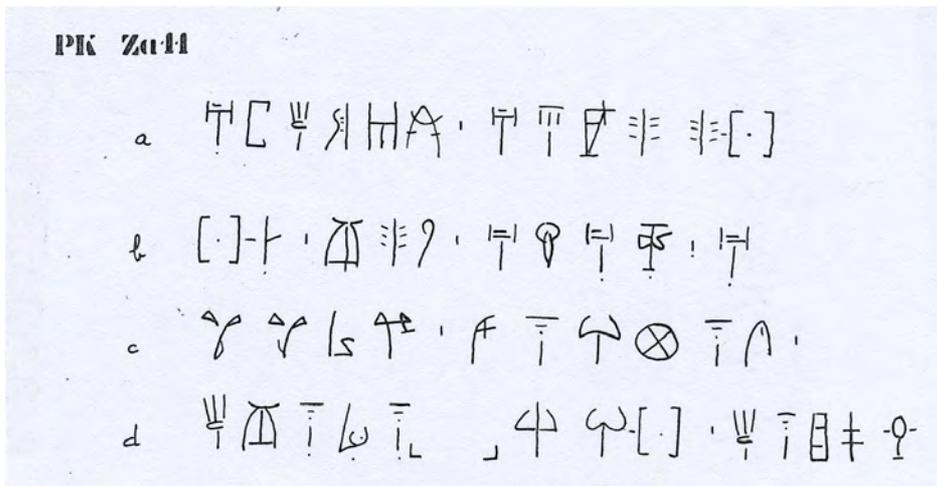


Fig. 65. Palaikastro PK Za 11 (from GORILA 4: 34).

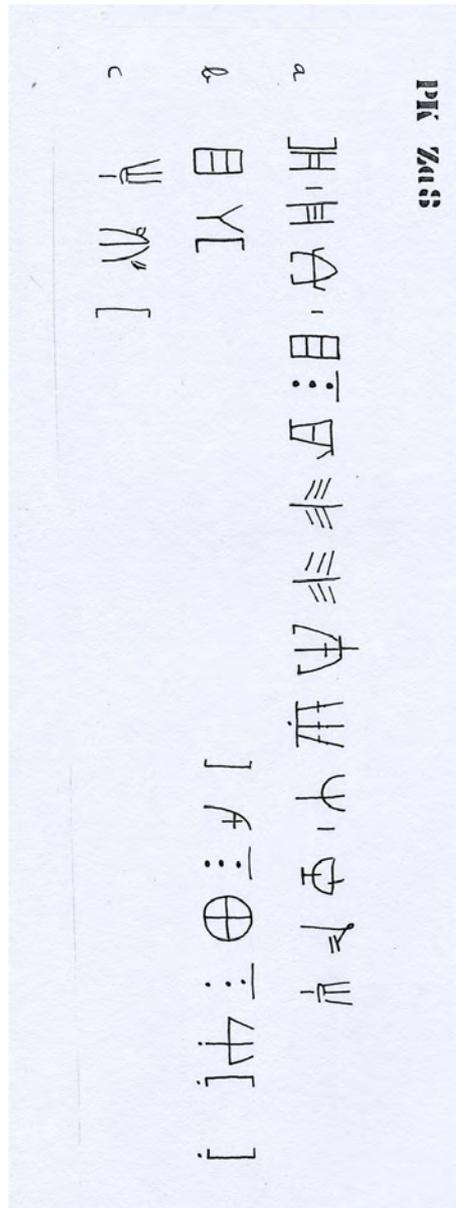


Fig. 66. Palaikastro PK Za 8 (from GORILA 4: 26).



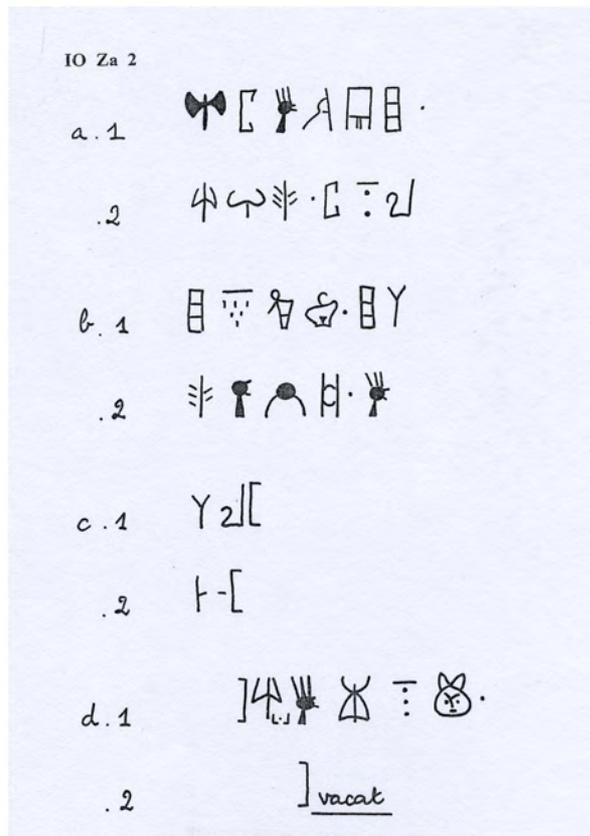


Fig. 68. Iouktas IO Za 2 (from GORILA 5: 19).

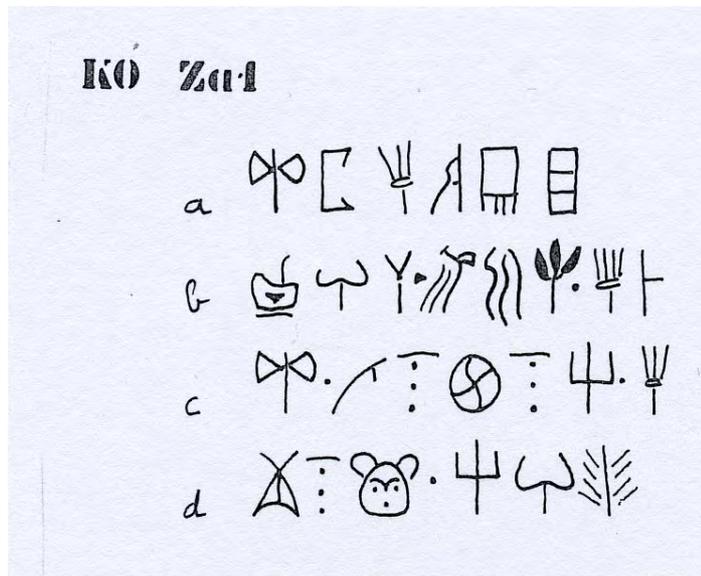


Fig. 69. Kophinas KO Za 1 (from GORILA 4: 20).

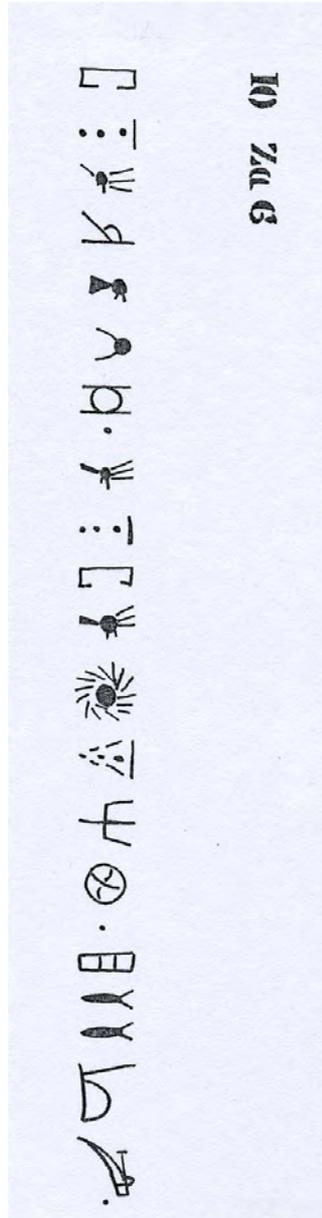


Fig. 70. Iouktas IO Za 6 (from GORILA 5: 26).

### Note on the Linear A syllabary

In my transliteration of the Linear A texts I have used a macron for the distinction between signs expressing the same value. This device is a purely formal one, and does not necessarily imply a difference in vowel length. In his latest contributions on Linear A, Jan Best has tried to show that in case of luxury signs for one and the same value this should be explained in terms of a distinction in vowel length. At first sight, his argument seems attractive, but he only presents some show cases and does not address the fact, evident from one glance at the grid, that the doubling of signs for one value, with the exception of three cases, is largely confined to the *u*-series (8 cases in sum). If Linear A really distinguished vowel length, why don't we have more luxury signs in the *a*- and *i*-series? In actual fact, L26 or AB06 *na* is used for *na* (as in *na-ta-nū-ti*<sub>6</sub>, the root of which corresponds to Semitic *nadānu* “to give, offer”) as well as *nā* (as in *-ka-na-si* or *-ka-na-ti*, corresponding to Semitic *-kināši* (D) or *-kināti* (A) “Your (f.)”), L74 or AB59 *ta* is used for *ta* (as in *ya-ta-nū-tī*, the root of which corresponds to that in Semitic *yatanû* “they have given (dual)”) as well as *tā* (as in *na-ta-nū-ti*<sub>6</sub>, the root of which corresponds to Semitic *nadānu* “to give, offer” and *pitaqe*, which corresponds to the Semitic vase name *patāqu*), L51 or AB07 *di* is used for *di* (as in *di-si-ka*, corresponding to Semitic *diškû(m)* “table”) as well as *dī* (as in *ya-di*, corresponding to Semitic *yad -ī* “my hand”), L56a or AB39 *pi* is used for *pi* (as in *pi-pi*, corresponding to Semitic *bibil* “as a present”) as well as *pī* (as in *pi-te*, corresponding to Semitic *bīt* “house, temple”), L57 or AB41 *si* is used for *si* (as in *-ka-na-si*, corresponding to Semitic *-kināši* (D) “Your (f.)”) as well as *sī* (as in *si-rū-te*, the root of which corresponds to Semitic *šīrutu(m)* “high rank, etc.”), etc. In addition to this, the case of Linear A *pu-kū* corresponding to Semitic *pūhu* “exchange” goes unmentioned in his contribution of 2006 (which appeared in 2008) whereas I had drawn attention to it during our meetings of the Alverna Research Group when discussing my chapter on Linear A in Woudhuizen 2006b. All in all, it seems more likely that the Linear A scribes were preoccupied with the creation of an extra *u*-series for the distinction of yet another back vowel (like [o]) than that they bothered at all about the distinction of vowel length.

**Concordance of the sign numbers**

/a/	L52	AB08	/pu <sub>2</sub> /	L34	AB29
/e/	L44	AB38	/qa/	L62	AB16
/i/	L100a	AB28b	/qe/	L91	AB78
/u/	L97	AB10	/qi/	L79	AB21f
/ū/	L80	AB61	/qu/		AB32
/da/	L30	AB01	/ra/	L53	AB60
/de/	L102	AB45	/re/	L54	AB27
/di/	L51	AB07	/ri/	L72	AB53
/du/	L93	AB51	/rī/	L58	AB76
/ya/	L32	AB57	/ru/	L65	AB123
/ye/	L81a	AB46	/rū/	L55	AB26
/ka/	L29	AB77	/sa/	L31	AB31
/ke/	L24	AB44	/se/	L77	AB09
/ki/	L103	AB67	/si/	L57	AB41
/ku/	L98	AB81	/su/	L59	AB58
/kū/	L45	AB70	/sū/	L7	AB12
/lu/	L69	AB34	/ta/	L74	AB59
/lū/	L22	AB02	/te/	L92	AB04
/ma/	L95	AB80	/ti/	L78	AB37
/me/	L84	AB13	/tī/	L88	AB301
/mi/	L76	AB73	/ti <sub>2</sub> /	L86	AB66
/mu/	L27	AB23	/tu/	L6	AB69
/mū/	CM 75		/tū/	L39	AB05
/na/	L26	AB06	/wa/	L75	AB54
/ne/	L61	AB24	/we/	L94	AB75
/ni/	L60	AB30	/wi/	L28	AB40
/nu/	L25	AB55	/za/	L23	AB17
/nū/	L100b	AB28a	/ze/	L16	AB74
/pa/	L2	AB03	/zi/	L36	AB312
/pa <sub>3</sub> /	L1	AB56	/zu/	L101	AB79
/pi/	L56a	AB39	/zū/	L10	AB20
/pu/	L64	AB50	/au/		AB85
/pū/	L21	AB11			

## II.4 THE LINEAR A INSCRIPTION ON A GOLDEN CLOTHING-PIN ACQUIRED BY THE MUSEUM OF HAGIOS NIKOLAOS\*

One longer Linear A inscription which is well preserved but omitted by me in my overview of reasonably comprehensible Linear A inscriptions in Woudhuizen 2006b(: 35-63; see section II.1 above) is the one on a golden clothing-pin acquired by the museum of Hagios Nikolaos, first published by Jean-Pierre Olivier, Louis Godart, and Robert Laffineur in 1981 and incorporated in the corpus of Linear A inscriptions as CR (?) Zf 1 (see Fig. 71). My reason not to include this inscription in the aforesaid overview was that I considered the interpretation of it by Jan Best as offered in Best & Woudhuizen 1989: 27-29 simply too good to be true. After checking his reading, however, I had to admit that the grammar is impeccable, or, in other words, too good not to be true!

First a word on the dating of the inscription. In GORILA 5: 83, it is assigned to Late Minoan IA, *c.* 1550-1500 BC. In *ductus*, however, the inscription finds its closest parallel in the one on the gold ring of Mavro Spelio (KN Zf 13), which according to GORILA 5: 109 should be assigned to either Middle Minoan III or Late Minoan IA. On the basis of its contents, though, this latter text can positively be situated in Late Minoan II, *c.* 1450-1400 BC, if not an advanced phase in this period (Woudhuizen 2006b: 61-62; see section II.6 below). *Mutatis mutandis*, the same verdict may well apply to the clothing-pin under discussion.

The text runs as follows in transliteration and translation:

*a-ma-wa-si / Ka-ni-ya-mi / i-ya / za-ki-se-nu-ti / A-ta-de*  
 “There, drive out, my Kaniyam, and set them free: A(u)-ta-de”

clothing-pin	Semitic	meaning
1. <i>a-ma</i>	<i>amma</i>	“there” (interjection, <i>c.</i> imp.)
2. <i>wa-si</i>	<i>waši</i>	“drive out!” (imp. 2nd f. in <i>-i</i> )
3. <i>Ka-ni-ya-mi</i>	<i>Kn‘m</i>	FN (Ugaritic)
4.	+ <i>-ī</i>	“my”
5. <i>i-ya</i>	<i>u+y</i>	“and”

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\* This section is a reworked and updated version of Woudhuizen 2009: section II.3 (pp. 142-144).

clothing-pin	Semitic	meaning
6. <i>za-ki-se-nu-ti</i>	<i>zaki</i>	“set free!” (imp. 2nd f. in <i>-i</i> )
7.	+ <i>-šunūti</i>	“them” (A 3rd pl. m.)
8. <i>A-ta-de</i>		MN (also <i>Au-ta-de</i> )

The name of the scribe, *A-ta-de*, is, in variant form *Au-ta-de*, also attested for the inscription on a bowl from Kophinas Monophatsi (KO (?) Zf 2), which I did include in my overview referred to in the above (see section II.1 above). As rightly stressed by Best, the verbs *wašû(m)* and *zakû(m)* can be used as technical terms in a religious context, so it is highly probable that the recipient, Kaniyam, was a priestess who, instead of ghosts and souls, had to drive out the pin and set free her cloths (note in this connection, as duly emphasized by Best, especially the correspondence of *i-ya za-ki-se-nu-ti* to the Semitic variant expression *ú-zak-ki-šu-nu-ti* “and I released them!”).

In combination with the 6 variants of the libation formula in sum discussed in the previous section and the texts of the bowl from Kophinas Monophatsi and of the pithos from Epano Zakro, we arrive at a total number of 9 longer Linear A inscriptions which definitely bear testimony of the Semitic language. However, it does not necessarily follow from this observation that *all* longer Linear A texts must be assumed to be conducted in the Semitic language, as in principle a script can be used to write down more than one language. Therefore it is highly relevant to note in this connection that at least 2 well-preserved longer Linear A inscriptions, namely the one on the ring from Mavro Spelio (KN Zf 13, see Woudhuizen 2006b: 58-63 or section II.6 below) and the one on an idol from Monte Morrone in Italy (see Woudhuizen 2009: 150-158 or section II.7 below), the latter for reasons of doubt about its authenticity being left out of the corpus, can only receive meaningful interpretation on the basis of a local Luwian vernacular.

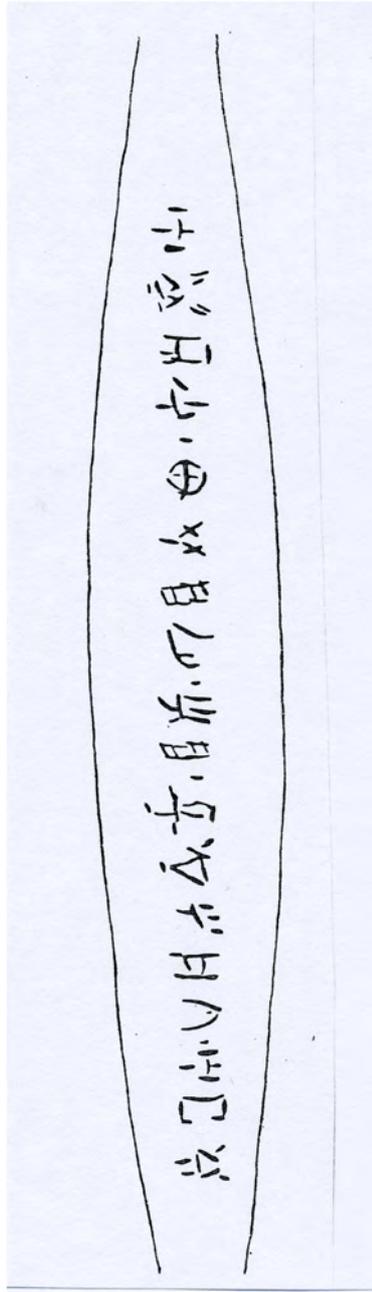


Fig. 71. Crete CR (?) Zf 1 (from GORILA 4: 146-147).

## II.5 OVERVIEW OF THE ETYMOLOGICAL RELATIONSHIP OF LINEAR A WITH THE SEMITIC LANGUAGES\*

Our discussion of a selection of the Linear A tablets from Hagia Triada (supplemented by the product names, especially grain varieties, as identified by Best in Best & Woudhuizen 1989: 9-10) and of 9 of the longer inscriptions as presented in volumes 1 and 2 of my series on the earliest Cretan scripts (see sections II.1 and II.3-4 above) leads us to the following overview of the relationship of Linear A with the Semitic languages (for Akkadian forms, see *AHW* or *Ass. Dict.*, for Ugaritic ones, see Gordon 1947 and 1955 or Olmo Lete & Sanmartín 2003a-b; for Akkadian grammar, see Huehnergard 2000; for Ugaritic grammar, see Tropper 2000):

Linear A	Semitic	meaning
vessel names		
1. <i>a-ka-nu</i>	<i>agannu</i>	(a large bowl) <sup>1</sup>
2. <i>a-sa-mu-ne</i>	<i>assammû(m) + -n</i>	“goblet” <sup>2</sup>
3. <i>ka-lū-pa<sub>3</sub></i>	<i>karpû, krpn</i>	“cup, wine goblet”
4. <i>pa-ta-qe</i>	( <i>patāqu,</i> ) <i>pitqā</i>	“winecup” <sup>3</sup>
5. <i>qa-pe</i>	<i>qapû, qpt</i>	“box, chest, basket” <sup>4</sup>
6. <i>su-pa<sub>3</sub>-ra</i>	<i>saplu, spl</i>	“a platter, tray”
7. <i>su-pu</i>	<i>šappu(m), sp</i>	“bowl”
transaction terms		
8. <i>ki-lū</i>	<i>kalû(m)</i>	“deficit” <sup>5</sup>
9. <i>ku-lū</i>	<i>kl, kôl</i>	“total” <sup>6</sup>
10. <i>pū-tū-ku-lū</i>	<i>pū-tū + kl, kôl</i>	“grand-total” <sup>7</sup>

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\* This section is a reworked and updated version of Woudhuizen 2009: section II.4 (pp. 145-149).

<sup>1</sup> Gordon 1968: 385; Best 1972a: 19.

<sup>2</sup> Cf. Greek ἀσάμινθος “bathtub”.

<sup>3</sup> Stieglitz 1971: 111; Richard 1974: 7.

<sup>4</sup> Stieglitz 1971: 111.

<sup>5</sup> Best 1973: 55; corresponds to Linear B *o-pe-ro*.

<sup>6</sup> Corresponds to Linear B *to-so* (m) or *to-sa* (f).

<sup>7</sup> Corresponds to Linear B *to-so-pa* “so much in all”.

Linear A	Semitic	meaning
11. <i>pi-pi</i>	<i>bibli(m), bibil</i>	“as a gift” <sup>8</sup>
12. <i>pu-kū</i>	<i>pūhu(m)</i>	“exchange”
13. <i>te-lū</i>	<i>tēlū</i>	“delivery” <sup>9</sup>
	products	
14. <i>da-me</i>	<i>dāmu(m)</i>	“blood (type of grain)”
15. <i>di-de-rū</i>	<i>dišarru</i>	“oats”
16. <i>du-ru-a</i>	<i>d/dr ʕ</i>	“seed”
17. <i>ku-mi-na</i>	<i>kamunū(m), kmn</i>	“cumin” <sup>10</sup>
18. <i>ku-pa</i>	<i>kōper</i>	“cypergrass, henna” <sup>11</sup>
19. <i>ku-ni-su</i>	<i>kunāšu(m), kunīšu</i>	“emmer wheat”
20. <i>mi-nu-te</i>	<i>minūtu(m)</i>	“standard (type of grain)”
21. <i>qe-ri-u</i>	<i>qālū</i>	“toasted grain” <sup>12</sup>
22. <i>qi-tu-ne</i>	<i>kitū(m), ktn</i>	“linen” <sup>13</sup>
23. <i>sa-rū</i>	<i>š ʕrm</i>	“barley”
24. <i>sa-sa-me</i>	<i>šamaššammū, ššmn</i>	“sesam” <sup>14</sup>
25. <i>si-tu</i>	<i>šitu(m)</i>	“expenditure” <sup>15</sup>
26. <i>WAINU</i>	<i>*wainu</i>	“wine” <sup>16</sup>
	functionaries	
27. <i>a-kū</i>	<i>aḥu(m)</i>	“brother; colleague”
28. <i>ma-re(-na)</i>	<i>mr’ (+ -n)</i>	“guild master”
29. <i>rū</i>	<i>LÚ</i>	“man; official”
30. <i>rū-zu-na</i>	<i>rôzên</i>	“prince, knight”
31. <i>sa-rī (G sg.)</i>	<i>šarru(m), sar</i>	“chief, ruler”

<sup>8</sup> Best 1973: 55; corresponds to Linear B *do-so-mo /dosmōi/*.

<sup>9</sup> Best 1973: 54; cf. Akkadian *tēlītu(m)* “Ertrag(sabgabe)”; corresponds to Linear B *a-pu-do-si*.

<sup>10</sup> Masson 1967: 51-52; corresponds to Linear B *ku-mi-no*.

<sup>11</sup> Masson 1967: 52-53; Brice 1961: Pl. XIVa, Cr V5a; Best 1972: 29; Best in Best & Woudhuizen 1989: 10; corresponds to Linear B *ku-pa-ro*.

<sup>12</sup> Best 1973: 56; cf. *qālītu* “Röstkorn” < *qalū* “to burn, roast”; Hebrew *qālīf*.

<sup>13</sup> Masson 1967: 29; corresponds to Linear B *ki-to-ne*.

<sup>14</sup> Masson 1967: 57; corresponds to Linear B *sa-sa-ma*.

<sup>15</sup> Brice 1961: Pl. XIVa, Cr V4b; Best in Best & Woudhuizen 1989: 10; corresponds to Linear B *si-to* “(portion of) grain”.

<sup>16</sup> Corresponds to Linear B *wo-no*.

Linear A	Semitic	meaning
32. <i>sa-qe-we</i>	<i>zâqîf</i>	“military guard” <sup>17</sup>
33. <i>tu-me</i>	DUMU	“son; deputy”
divine names		
34. <i>A-du</i>	<sup>d</sup> <i>Addu</i>	Haddu, Addad
35. <i>A-sa-sa-ra-</i>	<sup>d</sup> <i>AšratV, Atrt, ʔšrh</i>	Asherat, Asherah
36. <i>Nū-da</i>	<i>Nwt</i> (Eg.)	Nut
37. <i>Ti-ni-ta</i>	<i>Tnt</i>	Tanit, Tinnit <sup>18</sup>
personal names		
38. <i>Da-we-da</i>		MN (Biblical)
39. <i>Ka-ni-ya-m(i)</i>	<i>Kn ‘m (+ -ī)</i>	FN (Ugaritic)
40. <i>ku-pa<sub>3</sub>-nu</i>	<i>Gpn</i>	MN (Ugaritic)
41. <i>Qa-qa-rū</i>	cf. <i>qaqaru-</i> “talent”	(Akk.)
vocabulary		
42. <i>a-d(i), ya-d(i)</i>	<i>’d, yd (+ -ī)</i>	“hand”
43. <i>da-du-ma-ta</i>	<i>ilânu</i> <sup>MES</sup> <i>daadmema</i> ( <i>&lt; dadmū</i> )	“gods of the dwellings”
44. <i>di-si-ka</i> (A sg.)	<i>diškû</i>	“table”
45. <i>du-pu<sub>2</sub></i>	<i>tuppu(m), tuppum</i>	“tablet, inscription”
46. <i>du-r(ī)</i>	<i>dullu(m) (+ -ī)</i>	“work, offering”
47. <i>*ya-ta-nū-</i>	<i>ytn</i>	“to give”
48. <i>ka</i> (abbr.)	<i>gabbu</i>	“all”
49. <i>ki-de-ma-wi-na</i>	<i>ktm, kétem</i>	“gold”
50. <i>ki-tu</i>	<i>ḫt’</i>	“to sin” <sup>19</sup>
51. <i>ku-qa-wa-sa-tū</i>	<i>guḫaššu(m), guḫaṣṣu(m)</i>	“fringe”
52. <i>ma-lū</i>	<i>malû(m), ml’</i>	“to fill, cover”
53. <i>*na-ta-nū-</i>	<i>nadānu(m)</i>	“to offer”
54. <i>pa-qa</i> (A sg.)	<i>pakku(m)</i>	“wits, reason, sense”
55. <i>pi-te</i>	<i>bītu(m)</i>	“house, temple”
56. <i>sa-ya-ma-na</i>	<i>sym-, saym-</i>	“silver” <sup>20</sup>

<sup>17</sup> Ten Haaf 1975: 176, who rightly stresses the correspondence of the sequence *sa-rī — ru-zu-na — sa-qe-we* in HT 11 to Linear B *wa-na-ka — ra-wa-ke-ta — te-re-ta*.

<sup>18</sup> Pritchard 1982.

<sup>19</sup> In Linear A the meaning of this verb is slightly adapted from “to sin” via “to offer in compensation of a sin” to “to offer as an expiatory offering”.

<sup>20</sup> Richard 1974: 6.

Linear A	Semitic	meaning
57. <i>si-rū-te</i>	<i>šīrutu(m)</i>	“first-rank, august, etc.”
58. <i>*su-qa(nu)-</i>	<i>šukênu(m)</i>	“to prostrate oneself”
59. <i>ta-ne-ra-te</i>	<i>tanattu(m)</i>	“praise, renown, glory”
60. <i>*wa-su</i>	<i>wašû(m)</i>	“to drive out”
61. <i>*za-ku</i>	<i>zakû(m)</i>	“to set free”

## GRAMMAR

## nominal declension

N m sg. <i>-u</i>	<i>du-pu<sub>2</sub></i> , <sup>21</sup> <i>ku-qa-wa-sa-tū, tu-rū</i>
G m sg. <i>-i</i>	<i>sa-rī</i>
A m sg. <i>-a</i>	<i>di-si-ka, pa-qa</i>
N f dual <i>-(a)tā</i> <sup>22</sup>	<i>da-du-ma-ta</i>

## enclitic pronouns

62. <i>-ī, -ya</i>	<i>-ī</i>	1cs on nouns “my”
63. <i>-(a)-ma,</i> <i>-(a)-mi-na</i>	<i>-am/-m/-nim</i>	1cs D on verbs “to me”
64. <i>-na, -nu</i>	<i>-na/-nu/-ni, -n</i>	1cp on nouns and preps “our”
65. <i>-ka-na-ti</i> <sup>23</sup>	<i>-kināti</i>	2fp A on verbs “Your”
66. <i>-ka-na-si</i> <sup>24</sup>	<i>-kināši</i>	2fp D on verbs “to Your”
67. <i>-se-nu-ti</i>	<i>-šunūti</i>	3mp A on verbs “them”

## demonstratives

68. <i>da</i> <sup>25</sup>	<i>da, <u>d</u></i>	“this”
69. <i>de-ka</i>	<i>dēk-</i>	“this, that”
70. <i>za</i> <sup>26</sup>	<i>z' (&lt; <u>d</u>)</i>	“this”

## prepositions

71. <i>a-ne</i>	<i>ana, (a)na</i>	“in”
72. <i>a-re</i>	<i>'alēy-, l</i>	“to, for”
73. <i>i-na</i>	<i>ina</i>	“in”

<sup>21</sup> Used for the expression of the A sg.

<sup>22</sup> Segert 1984: 51; cf. Best in Best & Woudhuizen 1988: 29.

<sup>23</sup> Used on nouns and prepositions instead of verbs.

<sup>24</sup> Used on nouns and prepositions instead of verbs.

<sup>25</sup> End of Middle Minoan III, c. 1600 BC.

<sup>26</sup> End of Late Minoan II, c. 1400 BC.

Linear A	Semitic	meaning
74. <i>re, ri</i>	<i>le, l</i>	“to”
75. <i>sa</i>	<i>ša</i>	“of”
76. <i>ti</i>	<i>'itti, 't</i>	“in, at”
conjunctions		
77. <i>pa<sub>3</sub></i>	<i>pa</i>	“and, also”
78. <i>u</i>	<i>u</i>	“and”
79. <i>u-ya, wa-ya, i-ya</i>	<i>u/wa + -y, wy</i>	“and”
particles and interjections		
80. <i>a-ma</i>	<i>amma</i>	“there” <i>c. imp.</i>
81. <i>i-pi</i>	<i>ibī</i>	“please”
82. <i>y-</i>	<i>y-</i>	“oh” vocative
83. <i>-y</i>	<i>-y</i>	emphatic
84. <i>-m</i>	<i>-m</i>	“oh” vocative
85. <i>nū</i>	<i>nu</i>	“now”
verbal forms		
1cs perfect	<i>ū-su-qa(n), (y)a-ta-nū-tī, na-ta-nū-ti<sub>6</sub></i>	
3fs perfect	<i>ki-te-te</i>	
2fs imp.	<i>wa-si, za-ki</i>	
2cp imp.	<i>(i)-na<sup>27</sup></i>	
abs. inf.	<i>ki-tu, ma-lū</i>	

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<sup>27</sup> Von Soden 1955: 8\* Paradigmen II, §7: 2cp imp. in *-ā*.

## II.6 THE LINEAR A INSCRIPTION ON A GOLD RING FROM MAVRO SPELIO\*

In a review article on the language(s) of Linear A, I reached the conclusion that documents in this class of writing are mainly conducted in a Semitic vernacular, but that slips of the pen betray the native tongue of the scribes to be Luwian (Woudhuizen 2004c; cf. section II.1 above). The validity of this conclusion can be further enhanced by the Linear A inscription on a gold ring from Mavro Spelio—a burial site in the neighborhood of Knossos.

The inscription in question is included in the corpus of Linear A inscriptions by Louis Godart and Jean-Pierre Olivier, where it appears as KN Zf 13 with a photograph and drawing (see Fig. 72). Below their drawing, the signs, which are written spiralwise on the upper surface of the ring, running in *scriptio continua* from the outside to the inside, are rendered in linear lay-out in the form as the authors of the corpus think they appear on the ring, and below this again, in the form as they are ideally encountered otherwise. This distinction is induced by the fact that the execution of the signs is rather cursory (Godart & Olivier 1982: 153).

This second, idealized, rendering formed the basis of the transliteration of the text as offered by Carlo Consani in his most recent edition of Linear A texts (Consani 1999: 231), which, without the randomly placed slanting bars indicative of word division, reads as follows:

*a-re-ne-si-di-\*301-pi-ke-pa-ja-ta-ri-se-te-ri-mu-a-ja-ku*

Now, Consani's transliteration can be improved with the help of the photograph and the drawing on several points. In the first place, as I have argued in section II.1 above, the value of AB301 (= L88) is *tī*. Secondly, the final sign clearly constitutes an instance of AB34-35 (= L69), representing the value *lu* (Ruijgh 1979). Furthermore, the sign in 12th position definitely consists of AB60 (= L53) *ra*, and the following 13th sign is most likely to be taken for a stylized variant of AB28a (= L100b) *nū*. Finally, the sign in 15th position remains uncertain for the lack of plausible parallels, but, for reasons given below, might be suggested to be an awkward variant of AB38 (=

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\* This section is a reworked and updated version of Woudhuizen 2006b: section II.2 (pp. 58-63).

L44) *e* (for the numbering of the signs, see Godart & Olivier 1985: xxii and cf. Meijer 1982: 38-44). In sum, this leads us to the following adjusted transliteration:

*a-re-ne-si-di-ti-pi-ke-pa-ya-ta-ra-nū-te-e<sup>2</sup>-mu-a-ya-lu*

As far as its linguistic analysis is concerned, this seems to be a run-of-the-mill dedicatory text in Semitic, as the inscription starts with the combination *a-re*, which is paralleled for the Linear A inscription on a pithos from Epáno Zakro (ZA Zb 3) and has been elucidated by its correspondence to the Hebrew preposition *’alēy-* “to, for” and the latter’s Phoenician counterpart *l* of the same meaning (Gordon 1976: 28-29; Stieglitz 1983: 7; Best 1982-3: 12). However, the Semitic line of approach fails to explain what in the light of the relevant parallels appears to be an ending in the following sequence *ne-si-di-ti*. Clearly, we are dealing here with the dative singular in *-ti* as attested for the entry *te-lū da-ku-se-ne-ti* “delivery to Taku-šenni” from the Linear A tablet HT 104 from Hagia Triada. What is even more, this ending definitely constitutes a Luwian feature, which is most closely (i.e. not only in the declension of the pronoun, but also that of the noun)<sup>1</sup> paralleled for its peripheral Cyprian dialectal variant, compare for example the entry *te-lu sa-ne-me-ti* “delivery to Sanemas” in lines 25-26 from the text on the Enkomi cylinder seal inv. no. 19.10.<sup>2</sup> Evidently, then, the root *ne-si-di-*, which on the basis of the context should most plausibly be taken for the personal name of the recipient, is twice indicated as representing the dative case: once in Semitic and yet again in Luwian!

A breakthrough in our understanding of the remainder of the text was reached by Jan Best. The latter ingeniously recognized two place names in the sequences *pa-ya-ta* and *a-ya-lu*, of which the first corresponds to Linear B *pa-i-to* and Cretan hieroglyphic (Phaistos disk) *pa<sub>5</sub>-yá-tu<sub>6</sub>/pa<sub>5</sub>-ya<sub>1</sub>-tu<sub>6</sub>* or *pa<sub>5</sub>-yá-ta/pa<sub>5</sub>-ya<sub>1</sub>-ta* “Phaistos” and the second to Cretan hieroglyphic (seal # 310) *a-ya-lu*. Now, *a-ya-lu* to all probability is the Semitic (*ajalu* “stag”) indication of Malia, otherwise indicated in Cretan hieroglyphic by prominent antlers as an abbreviation of Linear B *ru-ki-to* “Lyktos”—i.e. the place enumerated between Amnisos and Sitia in the itinerary of Aegean place-names

<sup>1</sup> Cf. Woudhuizen 2015a: 41; 247-248.

<sup>2</sup> Best & Woudhuizen 1988: 115 (still wrongly taken for Khurritic); Woudhuizen 1992a: 96; Woudhuizen 2004b: 109; Woudhuizen 2006a: 129, note 670; van Binsbergen & Woudhuizen 2011: 310-311, note 1068; cf. section II.1 above.

from Amenhotep III's temple tomb at Kom el-Hetan (Thebes) precisely in the position where we would have expected the mention of Malia.<sup>3</sup>

Thanks to this ground-breaking discovery, the section of the text following the initial *a-re ne-si-di-ti* clearly shows a bipartite structure in which *pi-ke* relates to *pa-ya-ta* in the same manner as *ra-nū-te-e<sup>2</sup>-mu* relates to *a-ya-lu*. In other words, we are likely to be dealing here with the enumeration of personal names specified by the name of their hometown, all in the nominative of rubric. The latter inference gains weight from the fact that *pi-ke* comes into consideration as a Lycian variant (vowel *e*) of the current Luwian personal name *Pihas*, attested in the form of *pi-ka* for line 8 of the Cypro-Minoan text of the Enkomi cylinder seal inv. no. 19.10 (see Fig. 73a).<sup>4</sup> Furthermore, the sequence *ra-nū-te-e<sup>2</sup>-mu* appears to contain a likewise Lycian variant (vowel *e*) of the Hittite royal name *Arnuwandas*, which occurs in the centre of disk seals in Luwian hieroglyphic (LH) as *(a)ra-nu-tá* (see Fig. 73b).<sup>5</sup> This suggestion can be further underlined by the fact that the residual *e<sup>2</sup>-mu*, on the analogy of the Cypro-Minoan device according to which the author of the text identifies himself by the use of the Luwian or Lycian pronoun of the 1st person singular *-mu* or *e-mu* in association with his name, may well receive meaningful explanation as an instance of the aforesaid pronoun (Enkomi cylinder seal inv. no. 19.10, lines 8-10: *pi-ka (...) li-ki-ke-mu/ta-mi-ka* “Pikhas (...) I, trader from Lycia”; Kalavassos cylinder seal K-AD 389, line 6: *e-mu sa-ne-ma* “I, Sanemas”; Ras Shamra tablet 20.25, line 13: *we-sa -mu* “I, Wesas”).<sup>6</sup> Note, finally, that, considering the Anatolian

<sup>3</sup> Best (personal communication); Best 1996-7 [= Best 2011]: 116; 122; Woudhuizen 2002a: 126-127 with reference to Cretan *Elaphō Limna* “Stags’ Harbor” as the possible name of Malia’s harbor. For a treatment of the text on the Phaistos disk, see Achterberg e.a 2004 and cf. section I.10 above.

<sup>4</sup> Laroche 1966: 139, no. 962; Woudhuizen 1992a: 104. Note that in Cretan Linear B, Cypro-Minoan, and Luwian hieroglyphic in Late Bronze Age scribal tradition (Woudhuizen 2015a: 41), the nominative ending *-s* of personal names is as a rule omitted from the spelling, but definitely needs to be reconstructed for the ones from an Indo-European background (as it is the case with the place-names as well).

<sup>5</sup> Laroche 1966: 41-42, no. 148. Note that the value *(a)ra* (< *hara(n)*- “eagle”) is expressed by the bird of prey, LH \*131-133, which corresponds to PD31 *ra* on the discus of Phaistos, see Fig. 25 above. On the analogy of the fact that Cretan hieroglyphic *ta<sub>3</sub>-ru-nú* represents *Atlunu* (see Woudhuizen 2001: 612 and section I.1.1 above), the initial CV syllable in *ra-nū-te* probably expresses a VC sound, so that the name actually reads *Arnutes*.

<sup>6</sup> Woudhuizen 1992a: 104-107; 129-131; Woudhuizen 1994: 519-20; cf. Woudhuizen 2006a: 44-46 or van Binsbergen & Woudhuizen 2011: 224-226.

background of the personal names *pi-ke* and *ra-nū-te*, the name of the recipient of the gold ring, *ne-si-di-*, likely constitutes a reflex of Hittite *nāšili-* “Hittite”, characterized by *d/l*-change analogous to Linear B *da-pu<sub>2</sub>-ri-to-jo* (G sg.) for the Labyrinth.<sup>7</sup> In sum, this leads us to the conclusion that the gold ring of Mavro Spelio is a gift to Nesidis “the Hittite” by Pikes of Phaistos and Arnutes of Malia, of which the latter singles himself out to be the scribe.

For clarity’s sake, it seems expedient to recapulate that we thus have arrived at the following transliteration with word division and interpretation of the text on the gold ring:

*a-re ne-si-di-tī pi-ke pa-ya-ta ra-nū-te e’-mu a-ya-lu*  
 “For Nesidis: Pikes-Phaistos, Arnutes, I-Ayalu (= Malia).”

If we realize that, as stated in the introduction, Mavro Spelio is a burial site in the neighborhood of Knossos, it follows from the foregoing interpretation that all three main palaces of Crete are represented in the inscription on the gold ring: Knossos by Nesidis as the recipient, Phaistos by Pikes and Malia by Arnutes, the latter two as the donors. Now, considering the fact that no titles are used and all three persons involved in this manner advertise themselves as equals, we may well have here a clue as to the dating of the inscription, because the parity of the three Minoan palaces can only be situated *before* the Greek conquest of Crete some time after the disastrous eruption of the Santorini volcano at the end of Late Minoan IB (c. 1450 BC),<sup>8</sup> from which time onwards the *wanaks* (cf. Linear B *wa-na-ka-te-ro*) is situated in Knossos. In mythical terms, it reflects the time of the three brothers (= equals): Minos at Knossos, Rhadamanthys at Phaistos and Sarpedon, by means of deduction, at Malia, of which the first may have been a *primus inter pares*—which is in accordance with the fact that in our inscription the Knossian is the recipient of the gift. We may even go a little further than this, and suggest that a Hittite political influence in Knossos as reflected in the personal name Nesidis can only be situated *after* the defeat of the Assuwian league (in whose sphere of influence the Aegean islands and, considering the specification of Phaistos as “Assuwian” in the text on the Phaistos disk, even Crete were drawn) by Tudkhaliyas II (1425-1390 BC) sometime in the latter half of the 15th century BC and *before* the Akhaian take over by at first Pylian Greeks headed by

<sup>7</sup> Friedrich 1991, s.v. *nāšili-*; Ventris & Chadwick 1973: glossary, s.v. *da-pu<sub>2</sub>-ri-to-jo*.

<sup>8</sup> For this dating of the Santorini eruption, see section I.3 above.

king Nestor, so presumably in Late Minoan II in archaeological terms (cf. section I.10 above).

Whatever the merits of this attempt at finetuning the date of the inscription on the gold ring of Mavro Spelio, the salient point of our linguistic analysis is that the inscription is characterized by a Semitic preposition, *a-re*, but nonetheless appears to be conducted in Luwian as deducible from the D sg. in *-tī* and pronoun of the 1st person sg. *e'-mu*. In other words: Luwian functions as the matrix-language in this particular inscription

Now, it so happens that more in general in the Cretan dialectal variant of Luwian Semitic prepositions are used in combination with, according to Luwian standards, properly declined forms. Thus we are confronted, as we have just noted, with the sequence *a-re ne-si-di-tī* “for Nesidis (= the Hittite)” at the start of the Linear A legend on the ring from Mavro Spelio, where the Semitic preposition *'alēy* or *l* “to, for” is used in combination with a form in the Luwian (pronominal) D sg. in *-tī*. Furthermore, as we have seen in section I.7 above, we come across the sequence *ni bīty-rī* “to Bitylos” in the Cretan hieroglyphic legend of clay bar # 50d, where the Akkadian preposition *ANA* “to” (which occurs in CH as *ni* or *ná*), is used in combination with a form in the Luwian (nominal) D sg. in *-i*. Instead of being an anomaly, however, this is precisely what we should expect against the backdrop of Hittite *INA* <sup>URU</sup>*Hattuši* “in, to Khattusa”<sup>9</sup> and Ugaritic *i-na* <sup>KUR</sup>*ha-at-ti* “in, to Khattum”,<sup>10</sup> where the Akkadian preposition *INA* occurs in combination with a form in the D-Loc. sg. in *-i*.

More examples of phonetic renderings of Akkadisms or even Sumerograms in the Luwian matrix-language might be added to the foregoing ones. Much attention has been paid to the use of the Semitisms *bn* “son (of)” and *ytn* “he has given” in the discussion of the recurrent formulas on the Cretan hieroglyphic seals in section I.1. Similarly, in the legend of the largest Cretan hieroglyphic seal in section I.6 above we also discovered a number of Semitisms, viz. the prepositions *sa* “of” and *le* “to”, honorific title *saru-* “king”, and the commodity *WAINU* “wine”, alongside the phonetic rendering of the Sumerogram *LÚ* “man, official”, all embedded in the Luwian matrix-language. The same verdict applies to the occurrence of the Semitic transaction term *tēlū* “delivery” in the inscription on the Malia altar stone as discussed in section I.8 above. Finally, as we have experi-

<sup>9</sup> Friedrich 1974: 180, § 362.

<sup>10</sup> RS 20.238, line 21; cf. Güterbock 1998: 201.

enced in the discussion of the text of the Phaistos disk in section I.10 above, here also we find a reflex of the Akkadian genitive particle *ša* “of”, of the Akkadian honorific title *šarru-* “king”, whereas we even stumble upon an entirely Akkadian formation, *šarrūti* “of the kingship”, marked by the Akkadian genitive in *-i*.

In summary, it may safely be concluded that, against the backdrop of cuneiform Hittite and Luwian practices, the use of Akkadisms and even phonetic renderings of Sumerograms are only to be expected in the Cretan dialectal variant of Luwian.



Fig. 72. Gold ring from Mavro Spelio (from GORILA 4: 153).

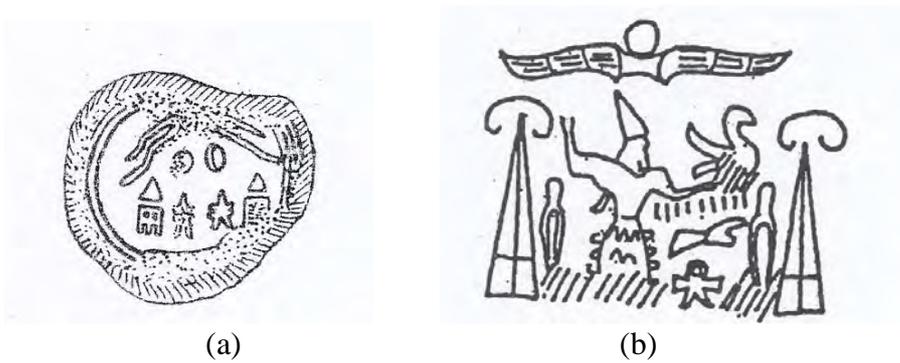


Fig. 73. Seal of Pikhas (a) and of Arnuwandas III (b) (from Güterbock 1942: 68 and Boehmer & Güterbock 1987: 80).

## II.7 THE LINEAR A INSCRIPTION ON THE IDOL FROM MONTE MORRONE, ITALY\*

As a corollary to work on the Byblos script, my attention was once more drawn to the Linear A inscription on an idol as discovered in association with other, uninscribed idols, near a peak-sanctuary on Monte Morrone (Roccacasale), at the Adriatic side of Italy already over fifty years ago in 1960.<sup>1</sup> This interest was motivated by the fact that in three of the instances of those signs from the Byblos script which are related to a Linear A counterpart the Monte Morrone inscription, provisionally assigned to the period of *c.* 1800-1600 BC, i.e. during an advanced stage of the Middle Bronze Age, provides the closest comparative evidence.

The first treatment of the Monte Morrone text by a specialist in Linear A we owe to the merit of Jan Best, who published a drawing of the object as well as its inscription (see Fig. 74) and proposed the following transliteration of the legend in question on the basis of the comparison of the individual signs to possible counterparts in the well-known Linear A repertory—with the noted exception of the quadrangular shaped sign, which he identified as a forerunner of the later Cypro-Minoan no. 75 and accordingly assigned the value *mu*:

*a-ti-a-wi-wa-ya-re-pi-ma-ku-ta(?) -pi(?) -yi(?) -le(?) -ka-mu-a-le(?) -sa-ku-ya-mu-re-pi-ma*

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\* Owing to the kind intervention by professor Aygül Süel, a preliminary draft of this section has been presented as a paper to the VIIth International Congress of Hittitology in 2008 by Dr. Fatma Sevinc: to both I am much indebted, see Woudhuizen 2010 or Woudhuizen 2009: section II.5 (pp. 150-158).

<sup>1</sup> This date of the discovery of the idol is based on the inquiries by Giulio Facchetti, who interviewed the present head of the archaeological department of Chieti, dr. Rosanna Tuteri. She happened to have a vivid memory of this find, which took place when she was still a child and her father, Renato Tuteri, was in charge of the aforesaid archaeological department. See Facchetti & Negri 2003: 189. Accordingly, this dating of the discovery supersedes the one of 1948 as suggested in Best & Woudhuizen 1988, based on oral information by Sibylle von Reden. Note, however, that this adjustment does not necessarily imply that the inscription is a falsification, as suggested by Mario Negri in a paper to a meeting of the Accademia Nazionale dei Lincei (= Negri *forthc.*), kindly communicated to me by Nicoletta Momigliano in advance of the publication of the latter's proceedings.

Subsequently, he tried to interpret the resulting message on the basis of the assumption that it is conducted in the same Northwest Semitic dialect as recorded for other Linear A inscriptions (Best & Woudhuizen 1988: 111-113).

Most recently, the Monte Morrone inscription received once more attention by scholars in the field of Linear A, Giulio Facchetti and Mario Negri, who devoted an appendix to it and published a photograph of the object in their monograph of 2003. On the basis of their autopsy, Facchetti and Negri were able to improve the reading of the text as compared to the one suggested by Best on a number of points, most important being their identification of the fourth sign as the Linear A equivalent of Linear B \*53 *ri*, viz. L72 (cf. Meijer 1982: 41), which accordingly may reasonably be argued to render the value *ri*, and the signs in 14th and 18th position as the Linear A equivalent of Linear B \*34, L69, which has been convincingly shown to render the value *lu* by Cornelis Ruijgh (1979). As I have further elaborated in connection with my discussion of the Linear A inscription on a gold ring from Mavro Spelio (see preceding section), the value *lu* of Linear B \*34 likewise applies for the Linear A counterpart L69. In sum, then, this enabled the Italian Linear A specialists to present the following improved transliteration, in which, for the sake of clarity, I have substituted *lu* for their \*34:

*a-ti-a-ri-ti-ja-re-tu-ma-ku-su-pi-je-lu-ka-\*00-a-lu-na-ku-ja-\*00-re-pi-ma*

In their discussion of this legend, Facchetti and Negri do try to distinguish combinations on account of their possible recurrence in other Linear A texts, but this does not result in an attempt at interpretation (Facchetti & Negri 2003: 188-191; Tav. I).

Notwithstanding the noted improvements of the reading by the Italian specialists, it must be admitted that they, at least in my opinion, unjustifiably discarded Best's identification of the 11th sign as L74 or AB 59 *ta*, whereas transliteration of the quadrangular shaped sign by the number \*00, probably because they doubt the validity of the comparison to its counterpart in the—otherwise generally considered to be intimately related—Cypro-Minoan script, instead of *mu* to my mind also does not particularly recommend itself as an improvement. If we reintroduce these readings of Best and add that the 8th sign, with

a view to its Byblian equivalent, clearly reads L103 or AB67 *ki*, this leads us to the following, in my opinion, optimal transliteration of the legend, at least in so far as its elements thus far acknowledged are concerned, in which I subsidiarily follow Best in his preference of rendering the semi-vowel *j* by *y* and render the Cypro-Minoan *mu* with a macron as *mū* in contradistinction of the regular Linear sign form *mu*:

*a-ti-a-ri-ti-ya-re-ki-ma-ku-ta-pi-ye-lu-ka-mū-a-lu-na-ku-ya-mū-re-pi-ma*

Before it is possible to embark on an attempt at interpretation, however, it deserves our attention that, as duly observed by Best, but not integrated by him into the transliteration, the double axe sign, representing the Minoan goddess *Asasara* or, in Biblical terms, *Asherah*, is depicted between the breasts of the idol precisely at the point where the text changes from a descending line into an ascending one in order to complete its otherwise M-shaped course over the upper side of the idol's body, suggesting that it follows L81a or AB46 *ye* and precedes L69 or AB34 *lu*.

As a corollary to this observation, it subsequently occurs that the name of the deity is preceded by the combination *pi-ye*, which, from a Luwian point of view, would allow for its interpretation as the verbal root *piya-* “to give”, used in religious contexts for the act of offering to the gods.<sup>2</sup> Now, as we have seen in the preceding sections II.1 and II.3-5, Linear A texts are primarily conducted in a Northwest Semitic dialect identifiable as, according to the suggestion by Best, Old Phoenician, but not exclusively so. Apart from the very rare ones in an Indo-European idiom of decidedly non-Anatolian type related to, but as yet distinct from, Greek and most adequately identified as Pelasgian (see section III.1 below), Luwian elements tend to pop up incidentally in the administrative texts of the Hagia Triada corpus, probably, in view of the evidence from onomastics, because Semitic was used as a *lingua franca* by scribes whose primary language was of Luwian type (see section II.1 above). Moreover, as we have seen in

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<sup>2</sup> Woudhuizen 2015a: indices, s.v. For Cretan hieroglyphic attestations of this verb, see Woudhuizen 2006b: 84 or section III.2 below, with reference to CHIC # 003γ, # 139, and # 126; for the related onomastic element *pija-* in Linear B texts from Knossos, see Woudhuizen 2006b: 29 or again section III.2 below.

the preceding section II.6, the inscription on the gold ring from Mavro Spelio starts as a run-of-the-mill dedicatory text in Semitic with the preposition *a-re*, corresponding to Hebrew *'alēy-* “to, for”, but soon goes over to Luwian as exemplified by the, in the sequel of the preposition *a-re*, semantically redundant dative singular ending in *-tī*, paralleled for Luwian only in the realm of the pronoun, but in its Cyprian dialectal variant also featuring in the nominal declension, of the following personal name. Furthermore, this latter inscription is characterized by the use by the scribe—named *ra-nū-te*, a reflex of Luwian hieroglyphic *Arnutas* in Lycian variant writing characterized by the vowel [e]—of the pronoun of the first person singular *e-mu* “I”, corresponding to the Lycian variant *emu* of Luwian *amu*, as a means to single himself out as such (Woudhuizen 2015a: 348).

Now, on the analogy of the just noted practice of the scribe to single himself out as such by the use of the pronoun of the first person singular *amu* in the text of the aforesaid gold ring, it is, of course, tempting to identify the instances of the quadrangular shaped sign *mū* as occurrences of the enclitic variant of the pronoun in question, *-mu* “I”,<sup>3</sup> from which it necessarily follows that *lu-ka* and *a-lu-na-ku-ya* are to be taken as separate entities with a bearing on the identity of the scribe. Of these two elements, then, the interpretation of *lu-ka* as the ethnic *Lukka* “Lycian” lies at hand. Next, the identification of *a-lu-na-ku-ya* as a personal name can, notwithstanding its apparent lacking of a parallel in its entirety, be underlined by the fact that its first element *alu-* is a common one in Anatolian onomastics,<sup>4</sup> probably related to the root of Latin *alumnus* “fosterling”, etc., from an Indo-European point of view, whereas its second element *nakuya-* may reasonably be considered a reflex of PIE *\*nek<sup>w</sup>*- “night” represented in Anatolian by

<sup>3</sup> Especially so if we realize that the same practice is attested for Cypro-Minoan texts, where it even consistently involves the use of the same quadrangular shaped sign if, at least, we include its lozenge shaped variant (Woudhuizen 1992a: 104-107; 129-131; Woudhuizen 1994: 519-520)!; note in this connection also the use of *amu* in Anatolian glyptic of the later Middle Bronze Age, like on the stamp cylinder seal Louvre AO 20.138 of Tarku(ku)runtas, no doubt a late 18th or early 17th century BC predecessor of the later kings of Assuwa and/or Arzawa in western Anatolia, and possibly on a sealing of an Anatolian subordinate of king Aplakhandas of Karkamis, reigning in the early 18th century BC, as has been surfaced in the palatial site of Acemhöyük, see Woudhuizen 2006-7: 126-127; Woudhuizen 2011a: 77; 80; Woudhuizen 2015b: 23-24.

<sup>4</sup> Laroche 1966: 28, nos. 38-41.

Hittite *neku-* “evening, night” and *neku-* “to become twilight”. Moreover, PIE *\*nek<sup>w</sup>*- “night” also features in Greek onomastics, as in the case of the name of the mythical counterpart of Lykos, *Nyktimos*, which in its turn is of similar type as Kaneshian *Išputaḫšū* “king of the night”. Note that the combination of the elements *alu-* and *neku-*, if rightly interpreted, in religious terms is likely to be taken for a reference to a deity of Dionysian type, being born at nightly ceremonies of a mystery cult.

Finally, the Luwian nature of the text seems to be further indicated by the element *a-ti* at its beginning, which, on the analogy of the heading of the Cretan hieroglyphic legend on the double axe from Arkalokhori, reading *á+ti sa<sub>1</sub>-hár-wa?* “in Skheria”, and that of a clay label from Malia inscribed in the same class of writing, presenting us with the sequence *á+tì wa<sub>1</sub>-tì<sub>1</sub>* “in the town” (CHIC # 109a), is likely to be identified as a reflex of the Luwian preposition *anda* “in”, variously occurring in Luwian hieroglyphic as *à-ta*, etc., and in Lycian as *ñte* (see section I.6 above). As an immediate consequence of this identification, the following combination *a-ri-ti-ja* seriously comes into consideration as a geographical name, in which case one is, with a view to the find spot of the idol, tempted to think of a variant of the toponym *Adria* characterized by metathesis of the dental and liquid, especially if we realize that in Luwian voiced or medial [d] is commonly represented by the unvoiced or *tenuis* [t].

After this in-breach, the interpretation of the rest of the text entails nothing more than a mopping-up action, as the sequences or combinations *re-ki-ma* and *re-pi-ma* by means of deduction only come into consideration as indications of the object and the residual element *ku-ta* preceding the verbal root *pi-ye* most likely functions as a preverb. In connection with the latter possible preverb, then, we are obviously dealing with a variant of Luwian *kata*, characterized by *a/u*-vowel shift as attested for both Lycian and the Luwian dialect of Crete,<sup>5</sup> irrespective of the answer to the question whether this preverb expresses the meaning “down” in like manner as *ἀνά* indicates an upward movement in Greek *ἀνατίθημι* (cf. also *κατατίθημι* for the downward movement) or “with” as in the expression *KATA-mi* “with me”; the consecrated object can have been actually laid down at the

<sup>5</sup> Cf. the prepositions *átu<sub>6</sub>* “in” (PD A1, etc.), *úpa<sub>5</sub>* “behind” (PD B13) and *aní* “under” (seal # 255, 1), corresponding to Luwian hieroglyphic *ata*, *apa*, and *ana(n)* (Woudhuizen 2015a: EIA index, s.v.).

time of offering or have been dedicated while experiencing the presence of the deity as is in fact quite common in the worldview of the ancients (cf. Latin *consecrare*), including the Luwians. In line with the identification of the sequences or combinations *re-ki-ma* and *re-pi-ma* as indications of the object, it lies at hand to explain the combination *pi-ma* at the latter sequence's end as a nominal derivative of the participle *pimi-* or *piyami-* of the verb *piya-* "to give", leading to the interpretation that the *religious function* of the object is specified as an "offering". As a consequence, the preceding *re(-)*, which on the analogy of *ra-nū-te* representing *Arnutas* is probably to be read phonetically as *ar* or even *ara*, may well come into consideration as a separate element and be explained as a reflex of the Luwian hieroglyphic noun *arā-* "sculpture", bearing reference to the *material nature* of the object, viz. a sculptured idol. If this is correct, the sequence *re-ki-ma* of highly similar formation is likely to be analyzed accordingly as consisting of the element *ar*, again, here also corresponding to Luwian hieroglyphic noun *arā-* denoting the material nature of the object as a sculptured idol followed by a nominal derivative in *-ma* of the participial formation in *-mi-* of the root *ki-*, corresponding to Luwian hieroglyphic *ḫū-* or *ḫWA-* (= *ḫ"-i-*) "to incise, sculpture, inscribe", thus emphasizing that the object is inscribed (for the given Luwian comparanda, the reader is kindly requested to consult the indices to Woudhuizen 2015a).

In sum, then, the preceding analysis of the Linear A inscription on the idol from Monte Morrone leads us to the following transliteration and interpretation:

*a-ti a-ri-ti-ya re ki-ma ku-ta-pi-ye A[SASARA]*

"In Adria: inscribed sculpture/idol [one has] consecrate[d] to Asherah;"

*lu-ka -mū a-lu-na-ku-ya -mū re pi-ma*

"I, Lycian, I, Alunakuyas: the sacrificial sculpture/idol."

Note that the endings of the nominative and possibly (if we are in case of *re ki-ma* and *re pi-ma* not actually dealing with neuters altogether) also accusative singular of the communal gender are omitted from the spelling, as is regular according to the rules of orthography for both

Luwian hieroglyphic in Bronze Age scribal tradition and Cretan Linear.

As general background information to the Linear A text on the idol from Monte Morrone it deserves our attention that in the case of (1) L81a or AB46 *ye* with its “flags” at the upper side, (2) L103 or AB67 *ki* with two slanting strokes at the top side, and (3) the second occurrence of L54 or AB27 *re* of which the lower side bends to the right the closest comparable evidence is provided by the Byblos script. It so happens, namely, that after the loss of regular contacts with Egypt in the wake of the invasions by gangs of chariot fighters of Indo-Aryan background which ultimately culminated into the takeover of power in Egypt by the Hyksos, dating from *c.* 1720 BC onwards, there occurred a vacancy of experienced scribes at Byblos, resulting in the development of a local, provincial style of writing in Egyptian hieroglyphic. As far as the evidence goes, this vacancy was filled in by (of all people) *Lycian* scribes, as exemplified by the miniature obelisk inscribed in Egyptian hieroglyphic from the temple of the obelisks dedicated by the Byblian king Abishemu II, ruling at the time of the Egyptian pharaoh Nehesy of the 14th dynasty dated to the year 1710 BC. At any rate, the seal bearer of Abishemu II responsible for the inscription is specified as *kwkwn sꜣ rwqq* “Kukun, son (= representative) of the Lycians”.<sup>6</sup> If we realize, then, that, in view of the influence of provincial Egyptian writing variants on the Egyptian hieroglyphic component in the signary of the Byblos script and that of the related Cretan Linear A, the genesis of the latter two scripts is likely to be assigned to the final decades of the 18th century BC, the role played by Lycian scribes in this process obviously allows us to explain the Byblian-like *ductus* of the aforesaid signs in the Linear A inscription on the idol from Monte Morrone, which, on top of the bill, appears to be one of the earliest examples in this class of writing (cf. Woudhuizen 2007: 697, note 1)!

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<sup>6</sup> Montet 1962: 89-90; Albright 1964: 42-43, note 17 and Albright 1959: 33-34 with reference to the Wilusian or Trojan royal name *Kukunis* and Lycian *Xuxune* (D sg.) as the relevant comparisons for the personal name in question. For the interpretation of Egyptian *sꜣ* “son” as representative, cf. Ugaritic *bn lky* “representative (lit.: son) of the Lycians”. See most recently Woudhuizen 2014.

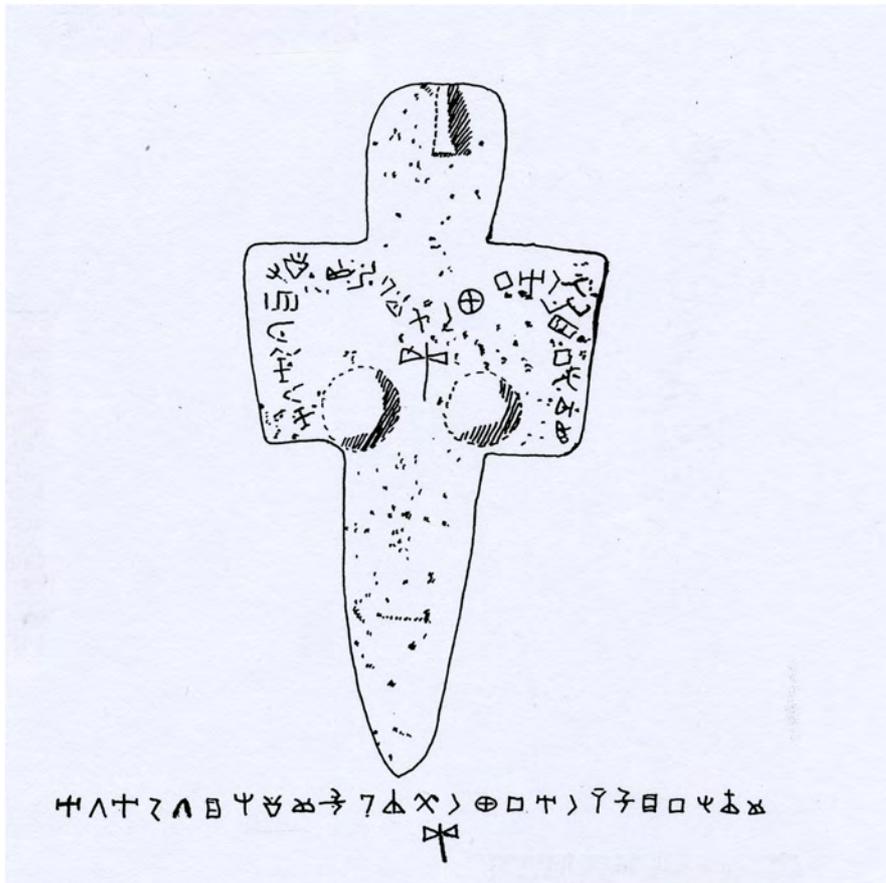


Fig. 74. Drawing of the idol from Monte Morrone, Italy, and its Linear A inscription (after Best in Best & Woudhuizen 1988: 112, Fig. 9).

## II.8 OVERVIEW OF THE LINGUISTIC EVIDENCE FROM THE TEXTS CONDUCTED IN THE LUWIAN MATRIX-LANGUAGE

In this section I use simplified renderings of both the Minoan Luwian and Luwian hieroglyphic forms, without the diacritics and distinction of small caps for logographic writings. Comparisons to Lycian, Lydian, and Cypro-Minoan fall within the range of the Luwian language group, whereas comparisons to Hittite are more distant but still an integral part of the IE Anatolian group of languages. The use of Semitic elements is a feature Minoan Luwian shares with the cuneiform scribal tradition of Anatolia, one branch of which is formed by cuneiform Luwian. As opposed to this, Egyptianisms are a feature of Minoan Luwian unparalleled for the mother language. No doubt, these latter are determined by geography and result from direct contacts of the Minoans with their southern neighbor Egypt.

Minoan	Luwian hier.	meaning
	vocabulary	
1. <i>a</i>	<i>a-</i>	sent. introd. part.
2. <i>a-</i>	<i>a-</i>	“to make”
3. <i>ami-</i>	<i>ami-</i>	“my”
4. <i>amu</i>	<i>amu</i>	“I”
5. <i>anu</i>	<i>ana(n)</i>	“under”
6. <i>as-</i>	<i>asa-</i>	“to be”
7. <i>ati, atu</i>	<i>ata</i>	“in”
8. <b><i>hordeum</i></b>	<b><i>hordeum</i></b>	“cereal”
9. <i>ħarmaħa-</i>	<i>ħarmaħi-</i>	“man; head”
10. <i>ħasu-</i>	<i>ħasu-</i>	“offspring”
11. <i>-ħawa</i>	<i>-ħawa</i>	“and”
12. <i>ħwi-</i>	<i>ħwi-</i>	“to inscribe”
13. <i>i-</i>	<i>i-</i>	“this”
14. <i>kata, kuta</i>	<i>kata</i>	“down, under”
15. <i>ki-</i>	<i>ħwaī-</i>	“to incise, sculpture”
16. <i>ku-</i>	<i>kwa-</i>	“who, what”
17. <i>kuku-</i>	<i>kwakwa-</i>	“whoever, whatever”
18. <i>laparna-</i>	<i>laparna-</i>	“labarnas”
19. <i>LI</i>	<i>li(nk)-</i>	“to swear in”

Minoan	Luwian hier.	meaning
20. <i>magistratus</i>	<i>magistratus</i>	(titular expression)
21. <i>masa(na)-</i>	<i>masana-</i>	“god”
22. <i>mi-</i>	<i>mi-</i>	“my”
23. <i>-mi</i>	<i>-mi</i>	“to, for me”
24. <i>-mu</i>	<i>-mu</i>	“I”
25. <i>-pa</i>	<i>-pa</i>	“and; but”
26. <i>para</i>	<i>para</i>	“pro-”
27. <i>piya-</i>	<i>piya-</i>	“to give; to sacrifice”
28. <i>re-</i>	<i>ara-</i>	“sculpture”
29. <i>sa-</i>	<i>sa-</i>	“to be”
30. <i>sasa-</i>	<i>sasa-</i>	“seal”
31. <i>sol suus</i>	<i>sol suus</i>	“his majesty”
32. <i>ta-</i>	<i>ta-</i>	“this”
33. <i>tati-</i>	<i>tati-</i>	“father”
34. <i>ti, ti-</i>	<i>ti</i>	“you”
35. <i>-ti</i>	<i>-ti</i>	“to, for you”
36. <i>tinita/i-</i>	<i>tinita/i-</i>	“tithe”
37. <i>tipara-</i>	<i>taparna-</i>	“tabarnas”
38. <i>tiwa-</i>	<i>tiwa-</i>	“to go; to come”
39. <i>tupala-</i>	<i>tupala-</i>	“scribe”
40. <i>tuzi-</i>	<i>tuzi-</i>	“guard; army”
41. <i>upa-</i>	<i>apa(n)</i>	“behind”
42. <i>utna-</i>	<i>utna-</i>	“land”
43. <i>ur-</i>	<i>ura-</i>	“great”
44. <i>uwi-</i>	<i>uwi-</i>	“you (pl.)”
45. <i>vita</i>	<i>vita</i>	“life”
46. <i>u, wa, -wa</i>	<i>wa, -wa</i>	sent. introd. part.
47. <i>wasu-</i>	<i>wasu-</i>	“good”
48. <i>ziti-</i>	<i>ziti-</i>	“man; official”
inflection of the noun		
49. —	—	N(m/f) sg.
50. —	—	A(m/f) sg.
51. —	—	N-A(n) sg.
52. <i>-i</i>	<i>-i</i>	D sg.
53. <i>-sa</i>	<i>-sa</i>	G sg.
54. <i>-ti</i>	<i>-ti</i>	Abl. sg.

Minoan	Luwian hier.	meaning
55. <i>-i</i>	<i>-i</i>	N(m/f) pl.
56. <i>-a</i>	<i>-a</i>	N-A(n) pl.
57. <i>-a(i)</i>	<i>-ai</i>	D pl.
inflection of the pronoun		
58. —, <i>-na</i>	<i>-na</i>	A(m/f) sg.
59. —, <i>-ya</i>	—, <i>-ī</i>	N-A(n) sg.
60. <i>-i</i>	<i>-i</i>	D sg.
61. <i>-sa</i>	<i>-sa</i>	G sg.
62. <i>-i</i>	<i>-i</i>	A(m/f) pl.
63. <i>-a</i>	<i>-a</i>	N-A(n) pl.
64. <i>-sa</i>	<i>-sa</i> (noun only)	G pl.
conjugation of the verb		
65. <i>-ti</i>	<i>-ti</i>	3rd pers. sg. pres./fut.
66. <i>-ta</i>	<i>-ta</i>	3rd pers. sg. past tense
67. <i>-m-</i>	<i>-m-</i>	particle mid./pass.
Minoan	Lycian	meaning
68. <i>emu</i>	<i>emu</i>	“I”
conjugation of the verb		
69. <i>-<sup>n</sup>te</i>	<i>-<sup>n</sup>te</i>	3rd pers. pl. past tense
Minoan	Lydian	meaning
70. <i>lapara-</i>	<i>labrus</i> (gloss)	“double-axe”
71. <i>te-</i>	<i>dā-, dē-</i>	“to give”
Minoan	Hittite	meaning
72. <i>ḫawasawa-</i>	<i>ḫuwaši-</i>	“altar-stone”
73. <i>ta</i>	<i>ta</i>	“and”

Minoan	Cyprian	meaning
74. <i>zelu-</i>	<i>zelu-, zilu-</i>	“admiral”
	inflection of the noun	
75. <i>-e, -ti</i>	<i>-e, -ti</i>	D sg.
Minoan	Semitic	meaning
76. <i>are</i>	<i>'alēy, l</i>	“to”
77. <i>le</i>	<i>le</i>	“to”
78. <i>lu, ru</i>	LÚ	“man, official”
79. <i>na, ni, nu</i>	<i>ana</i>	“to”
80. <i>pini</i>	<i>bn</i>	“son; representative”
81. <i>telu</i>	<i>tēlû</i>	“delivery”
82. <i>sa</i>	<i>ša</i>	“of”
83. <i>saru</i>	<i>šarru-</i>	“king”
84. <i>sarut-</i>	<i>šarrutu-</i>	“kingship”
85. <i>yatanu</i>	<i>ytn</i>	“to give”
	inflection of the noun	
86. <i>-i</i>	<i>-i</i>	G sg.
Minoan	Egyptian	meaning
87. <i>inaku</i>	<i>‘nh</i>	“life”
88. <i>nu</i>	<i>n</i>	“of”
89. <i>piti</i>	<i>bīty</i>	“king”
90. <i>sr</i>	<i>sr</i>	“official, noble”

## II.9 THE MINOAN PANTHEON\*

In her dissertation on the Minoan pantheon, Marina L. Moss (2005) assembled and discussed the archaeological evidence provided by numerous religious contexts from different types of locations (palace, settlement, peak-sanctuary, cave) in Crete. Although she included in her discussion the relevant Linear B data from the Knossos archives, bearing testimony of a wide variety of deities, Moss purposely avoided to make use of the evidence from the indigenous Minoan scripts, Cretan hieroglyphic and Linear A, even if texts in these scripts were surfaced in a context treated by her, like in the case of the peak-sanctuary at Iouktas where three libation tables inscribed in Linear A were found in front of the altar (Moss 2005: 102, Fig. 3.1).

In order to emend this shortcoming of Moss' otherwise highly interesting work, I have in the following assembled the evidence of divine names from Cretan hieroglyphic and Linear A in the hope that in this manner we are able to establish the nature of the Minoan pantheon in more detail.

The relevant Cretan hieroglyphic data are the following:

DIVINE NAME	TEXT NO.	LOCATION	DATE
1. <i>a-sa<sub>1</sub>-sa<sub>1</sub>-ra-me</i>	# 202	Arkhanes	EM III/MM I
2. <i>a-sa<sub>1</sub>-sa<sub>1</sub>-ra.me</i>	# 252	Arkhanes	EM III/MM I
3. <i>a-sa<sub>1</sub>-sa<sub>1</sub>-ra-me</i>	# 315	Arkhanes	EM III/MM I
4. <i>a-sa<sub>1</sub>-sa<sub>1</sub>-ra-mà</i>	# 251	Arkhanes	
5. <i>a-sa<sub>1</sub>-sa<sub>1</sub>-ra-me</i>	# 203	Knossos	
6. <i>a-sa<sub>1</sub>-sa<sub>1</sub>-ra[-me]</i>	# 179	Knossos	
7. <i>a-sa<sub>1</sub>-sa<sub>1</sub>-ra-me</i>	# 205	Crete	
8. <i>a-sa<sub>1</sub>-sa<sub>1</sub>-ra-me</i>	# 313	Moni Odigitria	
9. <i>a-sa<sub>1</sub>-sa<sub>1</sub>-ra-me</i>	# 292	Gouves	
10. <i>a-sa<sub>1</sub>-sa<sub>1</sub>-ra-me</i>	—	Arkhanes	EM III/MM I <sup>1</sup>
11. <i>a-sa<sub>1</sub>[</i>	# 134	Knossos	
12. <i>a-sa<sub>1</sub>[</i>	# 135	Samothrace	MM II or III
13. <i>a-sa<sub>1</sub>[</i>	# 136	Samothrace	MM II or III

\* This is a reworked and updated version of Woudhuizen 2009: section II.6 (pp. 159-165).

<sup>1</sup> Grumach 1968: 8, Fig. 1, no. iii; cf. Davaras 1972: 108, Fig. 2, no. xvii.

DIVINE NAME	TEXT NO.	LOCATION	DATE
14. <i>a-sa<sub>1</sub>l</i>	# 137	Samothrace	MM II or III
15. <i>a&lt;-sa<sub>1</sub>-sa<sub>1</sub>-ra&gt;</i>	# 054, etc.	Knossos	
16. <i>a&lt;-sa<sub>1</sub>-sa<sub>1</sub>-ra&gt;</i>	12x	Malia/Mu & P	
17. <i>*a&lt;-sa<sub>1</sub>-sa<sub>1</sub>-ra&gt;</i>	2x	Malia/pillar crypt	LM IB
18. <i>*Ashtarte</i>	2x	Malia/pillar crypt	LM IB
19. <i>TARKU</i>	# 054, etc.	Knossos	
20. <i>TARKU</i>	11x	Malia/Mu & P	
21. <i>*TARKU</i>	1x	Malia/pillar crypt	LM IB
22. <i>TARHU(NT)</i>	# 333, A13	Phaistos	LM IIIA1/2
23. <i>pa<sub>5</sub>-lu-zí-ti<sub>8</sub></i>	# 331	Malia <sup>2</sup>	
24. <i>á-du</i>	# 333, B3	Phaistos	LM IIIA1/2

From these data, it may be deduced that the most important deity, with (if we include the abbreviated instances) 17 occurrences in sum, is *Asasara*,<sup>3</sup> who has been convincingly identified with the Semitic mother-goddess *Asherat* or *Asherah*. The most characteristic symbol of this goddess is the double axe, which in writing functions for the expression of the initial vowel of her name, *a* (E36 or CHIC 042), and as such may be used on its own to refer to her in abbreviation.<sup>4</sup> On the south pillar of the pillar crypt in Malia (see Fig. 75), the symbol of *Asherah* occurs twice in combination with that of a star with either six or eight points. Now, against the backdrop of the identification of the main goddess as *Asherah*, it stands to reason that we are dealing here with the symbol of the daughter of this mother-goddess, *Ashtarte*, whose name originates from PIE *\*h<sub>2</sub>stér-* “star”, but we can as yet not be certain of this as we lack an instance of this divine name written out in full. However, this same shortcoming does not affect the symbol of the storm-god in the form of a trident on the

<sup>2</sup> For the identification of this name as a GN, see Woudhuizen 1992a: 78, note 125 and cf. section I.8 above.

<sup>3</sup> Note that the final element *-mà* or *-me* does not belong to the stem, as indicated by the punctuation mark in # 252, but constitutes a separate element corresponding to the Ugaritic vocative particle *-m*. It further deserves attention that the legend in question is as a rule divided over two sides of mostly three-sided prism seals, the third side of which, as deducible from the determinative of personal names on side 3 of # 252, is reserved for the name of the owner of the seal who in this manner declares himself a devotee of the goddess.

<sup>4</sup> Cf. especially in this connection # 205 where the double axe sign is set apart from the rest of the legend by small crosses on either side of it.

north pillar of this same pillar crypt at Malia, because the hieroglyphic inscriptions from the palace of Malia and Quartier Mu at the same site positively allow for the latter's identification as Luwian *Tarḫu(nt)*. In these texts, namely, the name of Tarkhunt occurs in the form of the goat's head sign *TARKU* (E65 or CHIC016) as much as 11 times, and is in frequency outmatched only by that of Asherah referred to in abbreviation by the double axe as much as 12 times (note that in two instances, # 098 and # 112, both deities occur together in the same text). On the other hand, it should be realized that the storm-god may also be referred to by Semitic forms of address like *Haddu* or *Ba'al*, as it happens to be the case in the text of the discus from Phaistos (# 333), and the altar stone from Malia (# 328) which according to its legend ultimately originates from Skheria (= Hagia Triada) also in the Mesara. In reality, this change from a Luwian to a Semitic form of address for the storm-god may not have been as fundamental for the Minoans as it might seem to us at first sight, as on the A-side of the discus of Phaistos the storm-god is referred to in his Luwian form *Tarḫunt*, again, by his symbol the trident or bolt of lightning.

If we next turn to the Linear A evidence, the following data are of relevance to our topic:

DIVINE NAME	TEXT NO.	LOCATION	DATE
1. <i>a-sa-sa-ra.me</i>	PR Za 1	Prassa	MM III/LM I
2. <i>a-sa-sa-ra-me</i>	IO Zb 10	Iouktas	MM III/LM I
3. <i>a-sa-sa-ra.me</i>	PK Za 11	Palaikastro	
4. <i>a-sa-sa-ra[</i>	PK Za 4	Palaikastro	
5. (...) <i>a-sa-sa-ra</i> (...)	PO Zg 1	Poros	LM IIIA1 <sup>5</sup>
6. <i>a&lt;-sa-sa-ra&gt;</i>	KO Za 1	Kophinas	
7. <i>a&lt;-sa-sa-ra&gt;</i>	—	Monte Morrone	MM II or III
8. <i>a&lt;-sa-sa-ra&gt;</i>	HT (3x)	Hagia Triada	LM IIIA1/2
9. <i>ya-sa-sa-ra-ma</i>	KN Za 10	Knossos	LM I
10. <i>ya-sa-sa-ra-me</i>	IO Za 6	Iouktas	
11. <i>ya-sa-sa-ra-me</i>	TL Za 1	Troullos	MM III
12. <i>ya-sa-sa-ṛa.me</i>	PS Za 2	Psykhro	
13. <i>ya-sa-sa-ra-mę</i>	PL Zf 1	Platanos	LM I
14. <i>ya-sa-sa-ṛa[</i>	IO Za 2	Iouktas	
15. <i>ya-sa-sa[</i>	IO Za 9	Iouktas	

<sup>5</sup> Dimopoulou, Olivier & Rhétémiotakis 1993.

DIVINE NAME	TEXT NO.	LOCATION	DATE
16. <i>ya-sa-sa[</i>	PK Za 14	Palaikastro	
17. <i>ya-sa[</i>	PK Za 8	Palaikastro	
18. <i>da-ma-te</i>	KY Za 2	Kythera	MM III/LM I
19. <i>i-da-ma-te</i>	AR Zf 1	Arkalokhori	LM IIIA1?
20. <i>i-da-ma-te</i>	AR Zf 2	Arkalokhori	LM IIIA1?
21. <i>nū-da</i>	KO Za 1	Kophinas	
22. <i>nū-da</i>	PK Za 18	Palaikastro	
23. <i>nū-da</i>	PK Za 17	Palaikastro	
24. <i>ti-ni-ta</i>	HT 27a.1	Hagia Triada	LM IIIA1/2
25. <i>da-du-ma-ta</i>	HT 95a.1	Hagia Triada	LM IIIA1/2
26. <i>a-du</i>	HT (7x)	Hagia Triada	LM IIIA1/2

If we realize that the elements *ya-* and *-ma* or *-me* are separate entities,<sup>6</sup> corresponding to the Ugaritic vocative particles *y-* and *-m*, again, the situation in Linear A appears to be very similar to that in Cretan hieroglyphic as *Asasara* or *Asherah* also in this particular set of documents with 16 occurrences in sum (on objects as diverse as libation tables, bowls, a rectangular base, an altar, an idol, a gold pin, and tablets) appears to be by far the most important deity. In like manner as with the storm-god in Cretan hieroglyphic, however, the mother-goddess may be referred to by her Semitic form of address, *Asherah*, as well as in this case Pelasgian ones, *da-ma-te* or Δαμάτηρ and *i-da-ma-te* or Ἰδα ἡ μήτηρ “the Idaean Mother”.<sup>7</sup> Alongside these indications of the mother-goddess we come across forms of address of her daughter, again, this time *ti-ni-ta* or Carthaginian *Tanit* and *nū-da* or Egyptian *Nwt*. In this connection it deserves our attention that *Tanit* (also vocalized as *Tinnit*) represents the *infernal aspect* of *celestial* *Ashtarte*, who, as we have seen in the above, is referred to in Cretan hieroglyphic by her symbol the star. In similar vein, the Egyptian goddess *Nwt* is identified in the inscriptions from Byblos with *Hathor* or *Ba‘alat* “the Mistress”, of which the first in later times is also addressed with the byname *Isis*—

<sup>6</sup> Note the punctuation mark in form of a dot in PR Za 1 from Prassa, PK Za 11 from Palaikastro, and PS Za 2 from Psykhro as indicated in his drawings by Grumach (1968: 14, Fig. 2) and verifiable thanks to Brice 1961: Pls. XVI (Psykhro), XVII (Palaikastro), and XXI (Prassa)!

<sup>7</sup> For the identification of these GNs as Pelasgian, cf. the final part of section II.1 above and see section III.1 below.

all indications of a youthful goddess comparable to Greek Περσεφόνη. This daughter-goddess, then, is presumably paired with her mother in the expression *da-du-ma-ta* “(the goddesses) of the dwellings [dual]” which features in the heading of the front side of tablet 95 from Hagia Triada whereas that of the back side is devoted to the god *a-du* “Haddu”. If we are right in this analysis, the pairing of mother and daughter in the Linear A expression *da-du-ma-ta* reminds us of their pairing as well in Cretan hieroglyphic, namely on the south pillar of the pillar crypt in Malia.<sup>8</sup> At any rate, the mention of the storm-god *a-du* “Haddu” in the heading on the back side of the Hagia Triada tablet in question as well as elsewhere in this set of documents makes sure that, in like manner as in Cretan hieroglyphic, we are confronted in Linear A with a *divine triad* consisting of the mother goddess, her daughter, and the storm-god, all variously addressed according to the ethnic background of their devotees or the latter’s local preferences.

It needs no special pleading that the foregoing conclusion that the Minoan pantheon consists of a divine triad coincides with the archaeological evidence for tripartite shrines in the form of a fresco from the palace at Knossos (Dussaud 1914: 334-335, Figs. 242-243; cf. also the Minoan gold plaque from the shaft graves at Mycenae depicted in his Fig. 244), a model of a shrine from Petsophas (Moss 2005: 107, Fig. 3.4), a relief on a vase from Kato Zakro (Shaw 1978: 432 ff.), and the *in corpore* remains of a shrine at Vathypetro (Moss 2005: 48, Fig. 1.22). Furthermore, I would maintain that the scene with the xoanon (note the omission of the arms) of a male god to the right and two pillars topped by double axes and birds to the left on one of the longer sides of the painted sarcophagus from Hagia Triada has a bearing on the cult of a divine triad consisting of one male and two female deities (Dussaud 1914: Planche D in between pages 400-401). If so, the distribution area of the archaeological and pictorial evidence of tripartite shrines or the cult of a divine triad shows a complete overlap with that of a divine triad from the Minoan scripts!

In the preceding sections reference has been made more than once to a divine triad as attested for a magical spell to conjure the Asiatic pox in the language of the Keftiu or Cretans as handed down

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<sup>8</sup> For parallels of the pairing of the mother and daughter goddesses, cf. Ugaritic *l’ntm* “for both Anats”, i.e. Asherah and Ashtarte (KTU 1. 43, §§ 18, 20, see Dietrich & Loretz 1992: 41-44) and Greek *wa-no-so-i* (= writing error for *wa-na-so-i*) “for the two Queens” (Linear B, PY Fr 1219) and *Potniai* “Demeter and the Maid” (Pausanias, *Guide to Greece* IX, 8, 1).

to us in Egyptian hieroglyphic (see Fig. 2a). As we have seen, this divine triad consists of *Santas*, *Kupapa*, and *Carian Tarhu(nt)*, which means one female and two male deities. Against the background of the Minoan divine triad as reconstructed in the above, which consists of two female and one male deity, the divine triad of the spell is likely to be identified not as Minoan, but rather as western Asiatic, where the type of divine triad in question is attested for Assuwan royal seals (Woudhuizen 2006-7: 127).<sup>9</sup> Accordingly, we have to distinguish between the *language* in which the spell is conducted, viz. that of the Keftiu or Cretans, and the *origin of the disease* which it is supposed to cure, which is Asiatic (*ʿmw*) and, as it seems, therefore most effectively conjured through the mediation of divinities from this latter region.

It is interesting to note in this connection that two divine names of the western Anatolian triad are already mentioned in a Late Bronze Age inscription from Torbalı near İzmir. This concerns a fragmentarily preserved stone stele, of which the lower part remains. On the front side are still visible a leg and the lower part of a spear, whereas on the back side what remains of the original inscription is convincingly interpreted by Rotislav Oreshko as a damnation formula in which the gods Tarkhunt and Kupapa are invoked to implement divine retribution against a possible desecrator of the monument. According to the reconstruction of the text by Oreshko it runs as follows (in my transliteration and translation):<sup>10</sup>

- |   |   |
|---|---|
| 1. $[\hat{a}\text{-}wa]$ -tu <sup>MASANA</sup> TARHUNT<br><sub>[MASANA]</sub> ku URA- <b>domina</b> -ha | “ Tarkhunt and Kupapa,<br>the Queen, by (decree of) all<br>the gods, shall be angry with<br>him!” |
| 2. <sup>KA</sup> MASANA-sa+ri<br>HARSALA-li-sa-tu   |   |

For the enigmatic determinative *KA*, cf. Tell Ahmar 6, §§ 13, 24.

<sup>9</sup> As I noted in Woudhuizen 2009: 211, it is to the merit of Joseph Azize (2005: 133) that, alongside the given divine triad, the sun-god (F1) can be observed in the upper-right scene of stamp-cylinder Louvre 20.138, rising between twin peaks. But it must be admitted that the latter plays a subordinate role in the entire scene, in which a central role is attributed to the storm-god (F2), the tutelary deity (F3), and love-goddess (trans-functional) as the upper scene is clearly dedicated to the sacred marriage between the storm-god with the goddess and in the lower one the tutelary deity is shown true to his nature hunting in the open field.

<sup>10</sup> Oreshko 2013: 373-386.

Apart from this textual evidence, the veneration of the divine triad Tarkhunt, Santas, and Kupapa in western Anatolia can only be deduced, as hinted at in the above, from pictorial material as provided, for example, by the scene on the stamp-cylinder seal Louvre 20.138.<sup>11</sup>

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<sup>11</sup> See note 9 above. The trifunctional nature of this triad in Dumézilan terms as assumed in Woudhuizen 2006-7: 127 is in actual fact more complicated, see most recently Woudhuizen 2013a: 338-339, as the sun-god (F1) is also present along-side the storm-god (F2), the tutelary deity (F3), and the trans-functional goddess in the scene of the Thebes seal, which may reasonably be attributed to an Assuwan or Arzawan great king. In view of the merely decorative role of the sun-god in the scene of Louvre 20.138, it might be argued that in comparison to the original Old Indo-European triad the storm-god has usurped the position of the sun-god (F1), the tutelary deity has taken over the position left vacant by the storm-god in this manner (F2), and the trans-functional goddess has done likewise with the position originally held by the tutelary deity (F3), cf. Woudhuizen 2016: 112-113. The Cretan divine triad, with two goddesses and only one god, is even more remote from the original Old Indo-European triad: what remains in fact is only the triad as a mental framework.

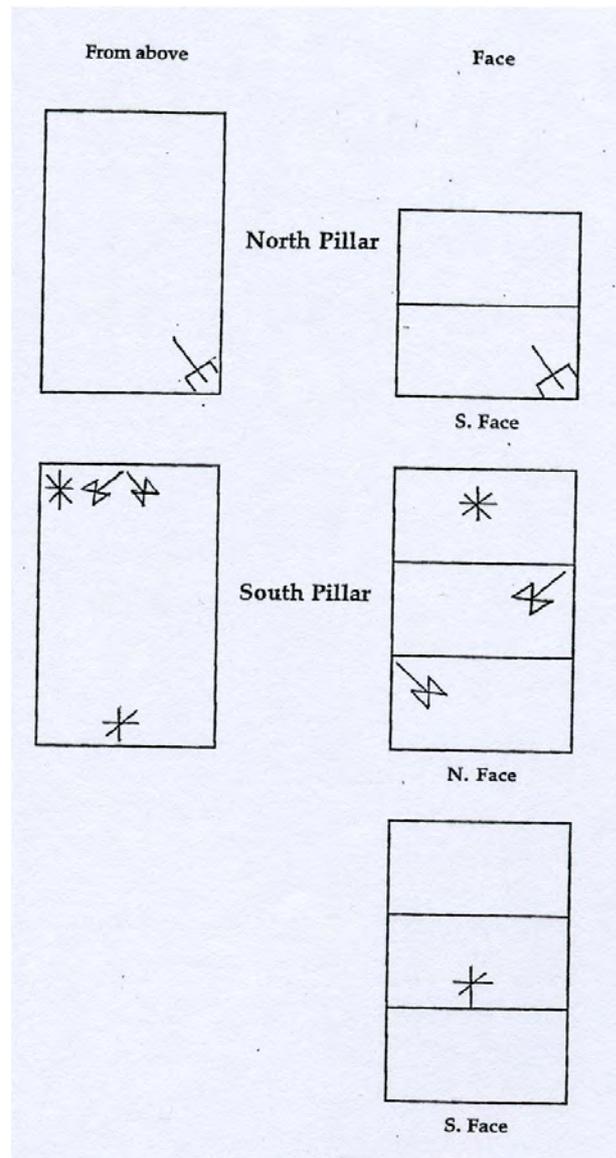


Fig. 75. Symbols on the pillars of the pillar crypt at Malia (from Moss 2005: 82, Fig. 2.8).

CHAPTER III:

PELASGIAN



### III.1 MINOAN EVIDENCE FOR THE PELASGIAN LANGUAGE

In section II.1 above we have noted that among the inscriptions in Linear A there is evidence for an Indo-European language of non-IE Anatolian type and also distinct from Greek, which may be identified as Pelasgian.

The first Linear A inscription which comes into consideration in this connection is the one on a steatite vessel from Kythera (KY Za 2), dated *c.* 1600 BC, which reads *da-ma-te* (see Fig. 76). Clarification of the legend as an instance of the divine name *Dēmētēr* lies at hand.<sup>1</sup> Now, according to the most plausible analysis this divine name bears testimony of a reflex *da-* of the root *\*gda-*, which in turn is a reflex of PIE *\*d<sup>h</sup>eǵ<sup>h</sup>ōm-* “earth”<sup>2</sup> characterized by metathesis and attested for the Phrygian place-name *Gdanmaa*,<sup>3</sup> and PIE *\*méh<sub>2</sub>tēr-* “mother”. As IE Anatolian definitely lacks a reflex of the given root for “mother”, the divine name must be assumed to originate from an Indo-European language other than the Anatolian ones.<sup>4</sup> If we further realize that the Greek reflex of *\*gda-* is *gē* or *ga* instead of *da-*, attested already for the divine name *ma-ka* *Mâ Γâ* “Mother Earth” in Linear B texts from Thebes, this language also seems to be excluded.<sup>5</sup> By means of deduction, then, only the pre-Greek Pelasgian language comes into consideration for the origin of the divine name *Dēmētēr*, which inference can be backed up by mythical evidence as preserved in Greek literary tradition according to which the cult of the goddess is particularly associated with Pelasgians.<sup>6</sup>

In addition, the same line of approach also seems to hold good for the Linear A inscriptions on a completely preserved gold and only fragmentarily preserved silver double axe from Arkalokhori (AR Zf 1-

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<sup>1</sup> Duhoux 1994-5: 290; Owens 1996a; Kaczyńska 2002: 139.

<sup>2</sup> Gamkrelidze & Ivanov 1995: 396; etc.

<sup>3</sup> Haas 1966: 215; for the GN *Da-* as a shorthand reference to “Mother Earth” in Phrygian, see Waanders & Woudhuizen 2008-9: 184; 196-197.

<sup>4</sup> Gamkrelidze & Ivanov 1995: 667; cf. Mallory & Adams 2007: 209. Note that the name of the daughter of king Aplakhandas of Karkamis (18th century BC), *Matrunna*, is likely to be ascribed to an Indo-European substrate of non-IE Anatolian type, see Woudhuizen 2016: 70.

<sup>5</sup> Aravantinos, Godart & Sacconi 2001: 393.

<sup>6</sup> Herodotos, *Histories* II, 171; Pausanias, *Guide to Greece* 1.14.2; cf. Woudhuizen 2006a: 143-146; van Binsbergen & Woudhuizen 2011: 321-324; 329.

2), which read *i-da-ma-te* (see Figs. 77-78).<sup>7</sup> This legend likewise most plausibly bears the testimony of a divine name based on the PIE root *\*méh<sub>2</sub>tēr-*, be it this time in combination with a reflex of the likewise PIE root *\*wid<sup>h</sup>u-* “tree, forest” as a reference to the central Cretan mountain *Ida*.<sup>8</sup> However, if Elizabeth Pierce Blegen is right in her dating of the double axes to Late Minoan II on the basis of “Palace Style” influence in their decoration, the possibility of a Greek attribution—be it presumably through a non-Greek medium<sup>9</sup>—in this particular case cannot be entirely excluded.<sup>10</sup>

If the foregoing analysis of the GNs *Damater* and *Idamater* holds water, it is of relevance to note that Pelasgians are recorded among the population groups of Crete by Homeros in his *Odyssey* XIX, 177. Moreover, the identity of this particular ethnonym to the Biblical *Philistines* as argued by a substantial number of scholars provides welcome additional evidence for a Cretan homeland of the Pelasgians (< *\*Pelastoi*), as the Bible consistently traces the for the southern Levant foreign Philistines back to *Kaphtor*. The latter country name, namely, actually consists of the Biblical name for “Crete”, related to Akkadian *Kaptara* and Egyptian *Keftiu*.<sup>11</sup>

It furthermore follows from the foregoing analysis of the GN *Damater* that the name of her consort in certain myths, *Poseidon* (*pose-da-o-ne* [D sg.] in a Linear B text from Knossos [KN V 52]), must be assumed to be of Pelasgian origin as well. In any case, from a linguistic point of view it has been analyzed by Paul Kretschmer and Fritz Schachermeyr as a compound of the element *potis* or *posis* “consort” as known from Greek with the form of address of Mother Earth, *Da*, so that the GN *Poseidon* literally means “consort of Mother Earth”.<sup>12</sup> To this comes that the tradition according to which Demeter and Poseidon were venerated in the cult of Arkadian Thelpusa and some other locations in *horse shape* as reported by Pausanias<sup>13</sup> is of a

<sup>7</sup> Godart & Olivier 1982: 142-143.

<sup>8</sup> Mallory & Adams 2007: 160; for evidence of the loss of the digamma already during the Late Bronze Age, see Georgiev 1966.

<sup>9</sup> Note that in Greek reflexes of PIE *\*wid<sup>h</sup>u-* the *wau* happens to be preserved, as in the Knossian MNs *wi-da-ka-so*, *wi-da-ma-ro*, and *wi-da-ma-ta<sub>2</sub>*, see section III.2, esp. note 43 below.

<sup>10</sup> Vandenabeele 1985: 5; cf. Kaczyńska 2002: 137-410.

<sup>11</sup> See Woudhuizen 2006a: 95-106; van Binsbergen & Woudhuizen 2011: 273-283.

<sup>12</sup> Schachermeyr 1950: 13-14; cf. Gamkrelidze & Ivanov 1995: 26; etc.

<sup>13</sup> Pausanias, *Guide to Greece* 8.25.5 f.

very ancient nature and can, in line with the opinion of Schachermeyr,<sup>14</sup> be traced back to the period of the introduction of the horse, attested for the Greek mainland during the Early Helladic III (horse-like animal) to Middle Helladic (true horse) periods, i.e. from c. 2300 BC onwards, and for the island of Crete on Early Minoan III or Middle Minoan I seals, i.e. around c. 2000 BC.<sup>15</sup> Note, however, that these dates to all probability only provide us with a *terminus ante quem*, because in nearby Anatolia the earliest Indo-European settlers, who arrived during the transitional period from Chalcolithic to Early Bronze Age c. 3300-3000 BC, are inextricably associated with the domesticated horse as a prestigious animal rendering services as a status symbol for elite members of the society.<sup>16</sup>

However, the evidence for the Pelasgian language in Minoan Crete is not confined to divine names, but includes personal names of the Minoan rulers as preserved by literary tradition and collected by Fritz Schachermeyr in his stemma of Cretan rulers.<sup>17</sup> Among this evidence features the name of Δευκαλίων, no doubt a post-diluvial figure ruling after the for northeastern Crete disastrous Minoan eruption of the Santorini volcano at the end of Late Minoan IB, c. 1450 BC, and otherwise known as the father of the Knossian king Idomeneus, according to Homeros, *Iliad* II, 645-652 the leader of the pan-Cretan host at the time of the Trojan war. Now, his name shows a reflex of PIE \**dyēw-* “sky-god”, viz. *deu-*, which is neither IE Anatolian nor Greek, and therefore, by means of deduction, highly likely comes into consideration as being of Pelasgian nature.<sup>18</sup> In any case, in variant writing characterized by typical Anatolian *d/l*-change, this onomastic element is used as the indication of the equivalent of Greek Zeus in Lydian, *Levś* or *Lefś*, and occurs here together with *Lametru-*, the Lydian equivalent of *Damater* likewise characterized by *d/l*-change.<sup>19</sup>

Yet another category of evidence for the Pelasgian language in Minoan Crete may be provided by Minoan evidence analogous to that for an Old Indo-European substrate in Luwian of western Anatolia. As

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<sup>14</sup> Schachermeyr 1950: 64; 143.

<sup>15</sup> Woudhuizen 2016: 57-61.

<sup>16</sup> Bökönyi 1991: 130; cf. Woudhuizen 2015d: 73-74.

<sup>17</sup> Schachermeyr 1983: 284; cf. Woudhuizen 2006b: 157.

<sup>18</sup> Woudhuizen 2006a: 143; van Binsbergen & Woudhuizen 2011: 321; 329.

<sup>19</sup> Gusmani 1964, s.v.

I argue in Woudhuizen 2016: 81-90, this entails hydronyms and toponyms which remained unaffected by typical Luwian soundlaws or phonetic developments, like the preservation of the PIE laryngeal [h<sub>2</sub>] in form of the typical Anatolian [h], in fact the defining criterion of the IE Anatolian language group, and the loss of the voiced velars, which has a bearing on Luwian only. To the latter category belong the toponyms like Cretan hieroglyphic *pa<sub>5</sub>-ki-wa<sub>8</sub>* (# 303, 4) or Linear B of Knossos *pa<sub>3</sub>-ko-we* (Ap 618, etc.) “Pyrgiotissa” < PIE \*b<sup>h</sup><sub>2</sub>ǵ<sup>h</sup>(i)- “high”,<sup>20</sup> Linear B of Knossos *ku-ta-to* (Ce 59, etc.) or Linear B of Pylos *ko-tu-we* (D sg.) (An 233, etc.) “Gortyns” < \*g<sup>h</sup>ord<sup>h</sup>- “city, town”, and Linear B of Knossos *ru-ki-to* “Lyktos” (Da 1288) and the related ethnonym as attested for the Linear A inscription from Monte Morrone *lu-ka* “Lycian” < PIE \*l(e)ug<sup>h</sup>- “to bind”, in which the voiced velars \*[ǵ<sup>h</sup>] and \*[g<sup>h</sup>] are not lost, but preserved and represented by a velar. To the category first mentioned, on the other hand, may be grouped personal names like, from the aforesaid stemma of Cretan rulers, Ἀστερίων < PIE \*h<sub>2</sub>stér- “star” and Linear A *a-ra-kū* (KO (?) Zf 2) or Linear B from Knossos *a-ra-ko* (As 607, etc.) “falcon”, a diminutive in *-ko-* of Luwian hieroglyphic *ara-* “eagle” < PIE \*h<sub>2</sub>er-/h<sub>3</sub>or- “eagle”<sup>21</sup> (note the contrast in the latter case with the, for IE Anatolian, regular Hittite *ḫaran-* “eagle” and related first element of the Carian MN Χεραμυης).<sup>22</sup> In line with my overview of the relevant data (Woudhuizen 2016: 90-95), in the western Anatolian Luwian context these phenomena distinctive of an Old Indo-European substrate can be positively assigned to the Pelasgians recorded for the region by the Greek literary sources. *Mutatis mutandis*, the same may well apply for these phenomena in the Cretan Luwian context, which in that case are indicative of Pelasgians among population groups of Minoan Crete.

In the western Anatolian Luwian context, furthermore, to this particular layer of Old Indo-European substrate also may be attributed the hydronyms *Seha* “Maiandros” and *Sahiriya* “Sangarios”, which are based on the PIE root \*seik<sup>w</sup>- “to seep, soak” in like manner as

<sup>20</sup> Note that the typical Luwian reflex of this root is represented by the TN *Priansos* < \**Prianthos* as it shows the regular loss of the voiced velar \*[ǵ<sup>h</sup>], see Woudhuizen 2016: 95, sub (2).

<sup>21</sup> Woudhuizen 2011a: 400; 412; cf. 90, note 7: *Araras* written with the “eagle-man” sign LH \*133.

<sup>22</sup> Friedrich 1991, s.v.; Adiego 2007: 330; cf. Neumann 1994: 22 and Janda 1994: 184.

Gaulish *Sequana* “Seine”.<sup>23</sup> Again, in the Cretan Luwian context, the same verdict may well hold true for the related toponym attested for Cretan hieroglyphic in form of *sa<sub>3</sub>-hár-wa<sub>10</sub>* (# 333, A 28; 31) or *sà-hur-wa<sub>9</sub>* (# 271, 2) “Skheria (= Hagia Triada)”. Other Old Indo-European river names in Crete are \**Amnis*, after which Amnisos is named, *Messapios* (< PIE \**med<sup>h</sup>*- and \**h<sub>2</sub>ep-* or \**h<sub>2</sub>eb<sup>(h)</sup>*-) to the west of Rhethymnon, and *Iardanos* (< PIE \**dān-*) to the west of Khania (see Pendlebury 1939: 8, Map 2; cf. Woudhuizen 2015d: 77).

It might be added to this that in the realm of toponyms the Old Indo-European substrate, not only in Anatolia but also in Greece and the northern Mediterranean coast in general, is represented by place-names in *-st-*.<sup>24</sup> Accordingly, the TNs Φαιστός (LA *pa-ya-ta* [KN Zf 13]; LB *pa-i-to* [KN Da 1156+; etc.]) and Λύκαστος (Homeros, *Iliad* II, 647) may well be considered indicative of its presence in Crete.

More in general, it deserves our attention in this connection that the *centum*-nature of the Old Indo-European substrate in question both in the western Anatolian Luwian context and Cretan Luwian context is assured by the velar reflex of palatal \**[ǵ<sup>h</sup>]* in the related toponyms *Parha* or Πέρρη and *pa<sub>5</sub>-ki-wa<sub>8</sub>* or *pa<sub>3</sub>-ko-we* “Pyrgiotissa” < PIE \**b<sup>h</sup>ǵ<sup>h</sup>(i)-* “high”.

To this evidence for Minoan Pelasgians may be added yet some more personal names. In the first place, *Teutamos*, as attested for the stemma of Cretan rulers in corrupted form †*Tektamos*, is staged in Greek literary tradition as a Pelasgian leader in Greece who migrated with his people from Thessaly to Crete. His name shows a reflex of PIE \**teutā-* “society, folk, people” and cannot be dissociated from the MN *te-u-to* as attested for a Linear B text from Knossos (Xd 292).<sup>25</sup> Secondly, it lies at hand to identify the name of the king of Phaistos in the text of the discus, *ku-na-wa<sub>10</sub>* (# 333, B 12), which in variant form *ku-ne-u* features in the Linear B texts from Knossos (Da 1396), with that of the leader in the Trojan war of the Peraibians and the people from Dodona and the Peneios region in Thessaly according to Homeros, *Iliad* II, 748-755, Γουεός. If so, it deserves our attention in this connection that according to Simonides in Strabo, *Geography* 9.5.20 the Perrhaibians (= Homeric Peraibians)

<sup>23</sup> Pokorny 1959: 893; note that the palatal version of this root, *sek<sup>w</sup>*-, as per Whatmough 1963: 68 to all probability results from a printing error.

<sup>24</sup> Woudhuizen 2016: 61 ff.

<sup>25</sup> Woudhuizen 2006a: 97; 99; van Binsbergen & Woudhuizen 2011: 275; 277.

are Pelasgiotes, which is nothing but a variant form of Pelasgians.<sup>26</sup> According to J.C. García Ramón, the root of the MN *ku-ne-u* is related to Greek κυνώ “bitch”;<sup>27</sup> if so, it likewise originates from PIE *\*k̂(u)wōn*<sup>28</sup> and further underlines the *centum*-nature of Pelasgian. Thirdly, *nú-wa<sub>1</sub>*, as recorded for the Cretan hieroglyphic legend of the eight-sided cylinder seal (# 314, 3) confronts us with a reflex of PIE *\*newo-* “new”, which is distinct from Luwian hieroglyphic *nawa*-<sup>29</sup> and Mycenaean Greek *newo*.<sup>30</sup> Now, in the Anatolian context, the element *nuwa-* is prominently present in toponyms characteristic of the Old Indo-European substrate, like *Tuwanuwa* of classical Tyana “new foundation”.<sup>31</sup> Next to this, it also turns up as an onomastic element in personal names like that of the Karkamisian king *Sahurnuwas* or, in reduplicated variant, Cappadocian *Nuwanuwas*.<sup>32</sup> Yet another example of a Pelasgian personal name is likely to be provided by *aper<sub>2</sub>-ya* “Eburia” (CH # 256), which bears testimony of the Old Indo-European onomastic element *eburo-* as paralleled by the ethnonym *Eburones* of the Lower Rhine region, and the toponyms *fundus Eburelia* in Liguria and *Eburobritium* in Lusitania.<sup>33</sup> Compare in this connection also the Greek TN Ἐφύρα. Finally, the MN *mi-da* as recorded for a Linear A tablet from Hagia Triada (HT 41.4) and traceable as first element of the MN *mi-d<sub>3</sub>-d<sub>3</sub>-m<sup>c</sup>* as recorded for the Egyptian exercise in writing Keftiu names (see Fig. 2b) strikingly recalls the Phrygian royal name par excellence, *Midas*. Yet, this name is also paralleled for *Mita* of Pakhkuwa, a ruler of a region in northeastern Anatolia. Instead of assuming that this name has been introduced in Anatolia by the Phrygians, as I believed up till recently, it may in fact be distinctive of the earliest Indo-European settlers in Anatolia, one of their settlements being founded at Pular which is situated exactly in the later kingdom of Pakhkuwa.<sup>34</sup> My reason for changing my opinion in this matter is formed by the fact that the west-Anatolian TN *Mira* to all probability derives from an earlier *\*Mida* by rhotacism of medial [d] already attested for Luwian hieroglyphic

<sup>26</sup> Woudhuizen 2006a: 103-104; van Binsbergen & Woudhuizen 2011: 281.

<sup>27</sup> García Ramón 2011: 228.

<sup>28</sup> Mallory & Adams 2007: 135.

<sup>29</sup> Woudhuizen 2015a: 283.

<sup>30</sup> Ventris & Chadwick 1973: glossary, s.v.

<sup>31</sup> Woudhuizen 2016: 62-64.

<sup>32</sup> Laroche 1966: 153, no. 1076; Laroche 1966: 153, no. 1076.

<sup>33</sup> Woudhuizen 2016: 76-77, note 72.

<sup>34</sup> Woudhuizen 2016: 73-74.

from the Middle Bronze Age onwards. If so, it shows a reflex of PIE \**medhiyos*, which, in the light of the relevant parallels, is indicative of a federal sanctuary situated in the “middleground” of its surrounding members in like manner as, for example, Celtic *Mide* in Ireland.<sup>35</sup> It is not unreasonable to assume that such an institution is very ancient and ultimately to be traced back to the earliest Indo-European settlers in Anatolia, which verdict, if correct, in that case no doubt also applies to the related MN *Midas*. On the basis of these arguments, then, I am now inclined to attribute this MN in the Cretan context to the Pelasgians.

All in all, we arrive at the following reconstruction in so far the Indo-European languages of Minoan Crete are concerned when viewed within the wider framework of the eastern Mediterranean migrations (see Table XVI):<sup>36</sup>

	IE population group	time of arrival
1.	Pelasgians	c. 3100 BC
2.	Luwians	c. 2300 BC
3.	Greeks	c. 1450 BC

Table XVI. Overview of the Minoan IE population groups and their approximate time of arrival in Crete.

It is certainly true that of these three Indo-European languages of Minoan Crete Luwian is recorded earliest, on Cretan hieroglyphic seals dating from c. 2000 BC onwards. As we have seen in the above, however, there is ample evidence of an Old Indo-European substrate in the Cretan Luwian context, which, in like manner as the one in the western Anatolian Luwian context, can positively be identified as Pelasgian. This latter language, then, in all probability happens to be the vernacular of the earliest recordable Indo-European settlers in Crete. But the Linear A texts conducted in the Pelasgian language are of later date, being assigned to c. 1600 BC and the late 15th or early 14th century BC. It is true that I was too rash in claiming in an earlier stage of my work that the Luwians were the earliest Indo-Europeans in Crete (paper presented in 2004 included in the bibliography as Woudhuizen *forthc.*). On the other hand, the vindication of the three Linear A texts conducted in the Pelasgian

<sup>35</sup> Woudhuizen 2016: 88-90.

<sup>36</sup> Woudhuizen 2016: 79, Table V.

language as the earliest evidence of Indo-European as claimed by Gareth Owens and referred to in section II.1 above<sup>37</sup> is only valid on the basis of the *deduction* that this particular language indeed constitutes an Indo-European substrate, and finds no support in the *actual dates* of the documents in question.

However that may be, in summary we arrive at the following overview of the languages recorded for the earliest Minoan scripts, Cretan hieroglyphic and Linear A (see Table XVII):

	LUWIAN	SEMITIC	PELASGIAN
CH	seal(ing)s: in general  longer texts: MA # 328 DA # 332 PD # 333	seal(ing)s: LF PF 1 PF 5	
LA	idol of Monte Morrone KN Zf 13	PK Za 8 PK Za 11 TL Za 1 IO Za 2 IO Za 6 KO Za 1 ZA Zb 3 CR (?) Zf 1 KO (?) Zf 2	KY Za 2 AR Zf 1 AR Zf 2
	HT tablets: substrate infl.	HT tablets: in general	

Table XVII: Overview of the languages attested in the Minoan scripts.

<sup>37</sup> Owens 2000: 253; cf. his further works referred to in the bibliography.

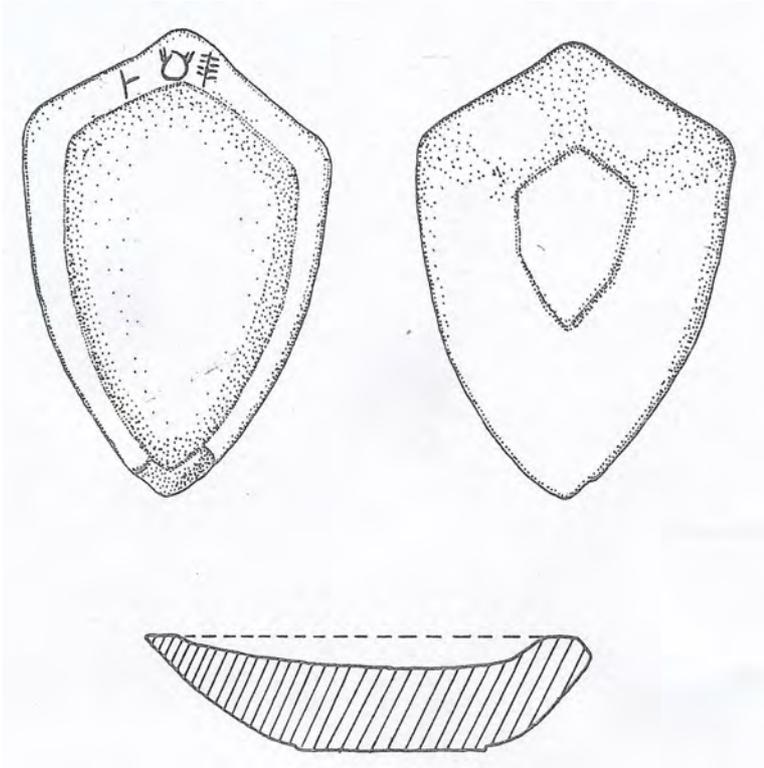


Fig. 76. Steatite vessel from Kythera (KY Za 2) (from Sakellarakis & Olivier 1994: 345, Fig. 4).

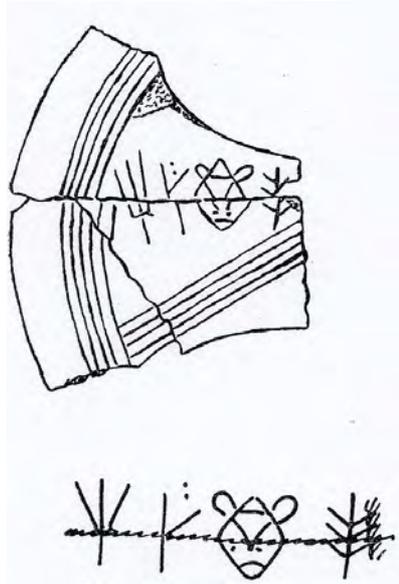


Fig. 77. Fragmentarily preserved double-axe of silver (AR Zf 2)(from Boufides 1953-4: 64, Eικ. 3).

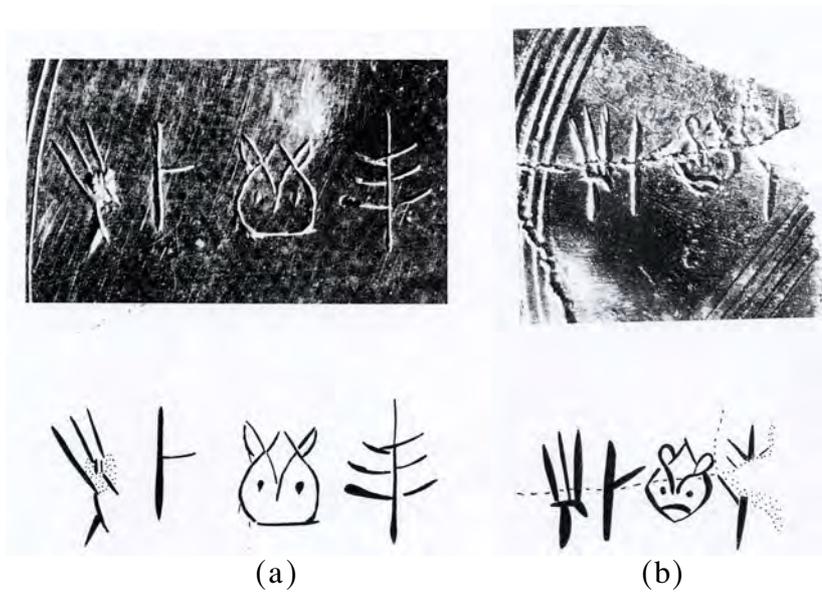


Fig. 78. The legends on (a) a completely preserved double axe of gold (AR Zf 1) and (b) a fragmentarily preserved double axe of silver (AR Zf 2) (from GORILA 4: 142-143).

### III.2 ETHNIC DIVERSITY IN MINOAN CRETE\*

This section elaborates my appendix III on the stemma of Cretan rulers during the Middle and Late Bronze Age as reconstructed on the basis of the information from Greek literary sources in Woudhuizen 2006b: 155-157, in which I argued that it is possible to distinguish as much as three diverse ethnic backgrounds of Cretan rulers from the Minoan period, viz. (1) Luwian (Sarpedon, Glaukos: names paralleled for the leaders of the Lycian troops at the time of the Trojan war according to Homeros, *Iliad* II, 876-877, which ethnic affiliation in the first mentioned case is further emphasized by later Lycian *Zrppedu-*), (2) Semitic (Belos < *b'l* “ruler”, Kadmos < *qdm* “east”,<sup>1</sup> Europe < *'rb* “west”, Phoinix), and (3) Pelasgian (Teutamos < PIE *\*teutā-* “society, folk, people”, Deukalion < PIE *\*dyēw-* “sky(god)”, Asterion < PIE *\*h<sub>2</sub>stér-* “star”<sup>2</sup>). Apart from names of Indo-European

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\* This section is a reworked and updated version of Woudhuizen 2009: section I.4 (pp. 96-113).

<sup>1</sup> According to the Biblical evidence as discussed by Margalith 1994: 50-53, the region of *Qedem*, inhabited by the *Qadmonites*, is situated in Aram in North Syria and, notwithstanding the ultimate origin from *qdm* “east”, does not have a bearing on easterners in the given context: it is just a geographic name from which the ethnic is derived, or vice versa.

<sup>2</sup> The analysis of Ἀσπερίων as a reflex of PIE *\*h<sub>2</sub>stér-* “star” does not exclude the possibility of attributing this name in the Cretan context to Semitic antecedents, as the related Semitic GN *Ashtarte* also has been plausibly explained as a typical Semitic feminine derivative in *-t* (Patai 1990: 56 “the name of Astarte appears with the omission of the feminine ending, as ‘Ashtar’”) of the same PIE root (Gamkrelidze & Ivanov 1995: 592; 772), in which case this goddess, who is specified by Patai 1990: 55 as the daughter of Asherah, comes into consideration as a representative, in like manner as the Greek Persephone or Kore, of the typically Indo-European sun-maiden, cf. Petersmann 1986 and Janda 2000. As noted in Woudhuizen 2016: 68-70, the Levant has been subject to several incursions by speakers of Indo-European from c. 3300-3100 BC onwards, and hence the infiltration of Indo-European influences in the local Semitic dialects, as further exemplified by, for instance, the FN *Sarah* (< PIE *\*sor-* “woman”), the GN *Dagan* (< PIE *\*d<sup>h</sup>eǵ<sup>h</sup>ōm-* “earth” as per Singer 2000), the river name *Jordan* (< PIE *\*dānu-*), and the vocabulary word *ḵarn-* “horn” (< PIE *\*ḵerh<sub>1</sub>-*) as in the TN *‘Ashteroth-Qarnaim* “Astarte of the Two Horns” (Patai 1990: 57; cf. Gamkrelidze & Ivanov 1995: 772-773), need not surprise us, and certainly do not force us to enter the field of Nostratic—whatever its merits. Note, however, that the loss of *h* < PIE laryngeal *\*h<sub>2</sub>* in the Luwian context, as observed in Woudhuizen 2011a: 412-413, may, as in case of *ara-* “eagle” < PIE *\*h<sub>2</sub>er-/h<sub>3</sub>or-* (in contrast to the in this respect regular Hittite *ḵaran-*, from which in turn the first element of the

type more in general or Indo-Aryan type more in specific (Rhadamantys < *ratha-* “chariot”, Meriones < *marya-* “young warrior, hero”) already observed, there should, if we include the relevant material from contemporary sources, be added, as I will try to show below, onomastic evidence for the following ethnic entities: (4) Thraco-Phrygian (= pre-Greek population groups inhabiting mainland Greece already before the arrival of the Greeks *c.* 1600 BC, see Woudhuizen 2013b, who apparently were in contact with Crete from the Middle Bronze Age onwards), (5) Greek (prolifically attested for the Mycenaean Linear B tablets from Knossos and Khania, but only included here as far as the indigenous Minoan scripts Cretan hieroglyphic and Linear A are concerned), (6) Egyptian, and (7) Khurritic.

With the contemporary sources reference is made to Egyptian hieroglyphic (EgH) in so far as it offers information on the language of the Keftiu, Cretan hieroglyphic (CH), Linear A (LA), and Linear B (LB). The relevant Egyptian material consists of a spell in the language of the inhabitants of Keftiu against the Asiatic pox, handed down in the form of a copy during the period of the late 18th dynasty, but originally stemming from an earlier date, probably the reign of Amenhotep III (1390-1352 BC), whose cartouche appears several times in the text, or even one of his forerunners belonging to the early 18th dynasty (Vercoutter 1956: 82-83). In addition, it entails an exercise in writing names of the Keftiu on a writing-board dating back to the period of the early 18th dynasty (Peet 1927; Vercoutter 1956: 45-51; Helck 1979: 100-105 [= Helck 1995: 83-87]) (cf. Fig. 2). For an earlier, more extensively referenced treatment of both these texts, see Woudhuizen 1992a: 1-10.<sup>3</sup> Of the local Cretan scripts, Cretan

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Carian MN *Xeramuēs* is derived, see Neumann 1994: 22 and Janda 1994: 184), be attributed to the influence of an Old Indo-European substrate identifiable as Pelasgian, cf. Woudhuizen 2016 90-95. The latter inference also applies to the related Cretan MN *Arakos*, a diminutive in *-ko-* of *ara-* “eagle” bearing reference to the smaller bird of prey “falcon”.

<sup>3</sup> In my remarks on the exercise in writing Keftiu names, I distinguished two of Luwian background, *Ruwantias* and *Daparas*, and one characterized by a patronymic which bears testimony of the Semitic word for “son”, *bn*, alongside a clearly Egyptian name, *Sennefer*. After having consulted the relevant section in Vercoutter 1956 once more, I can now be even more specific and differentiate the ethnically salient names according to at least as much as 5 distinct categories, namely, in accordance to their diminishing frequency: (1) Egyptian (*Sennefer* [2x], *Senked*, *Semdety*, and *Suemresu*), (2) Luwian (*Ruwantias*, *Daparas*, and *Pinarutis*), (3) Semitic (*Išhara* and the patronymic marker *bn* [followed here, as might be

hieroglyphic has been in use from the Early Minoan III/Middle Minoan I transitional period, *c.* 2000 BC, to the end of Late Minoan IIIA1, *c.* 1350 BC, Linear A is first attested for the palace of Phaistos in a layer dated to the end of Middle Minoan II, *c.* 1700 BC, which, however, serves as a *terminus ante quem*, and like Cretan hieroglyphic remains in use to *c.* 1350 BC, whereas Linear B is introduced from the Greek mainland after the for Minoan Crete disastrous Santorini eruption at the end of Late Minoan IB, *c.* 1450 BC, the destruction of the palace of Knossos at the end of Late Minoan IIIA1, *c.* 1350 BC, providing us with a *terminus ante quem* for this event, and after this latter date constitutes the only form of script recorded for the island of Crete up till the end of the Bronze Age, *c.* 1200 BC, when it is eventually discontinued (cf. Fig. 1).

It is well known that the language of the Linear B tablets consists of an early form of Greek, the so-called Mycenaean Greek. As opposed to this, the Linear A texts on tablets as well as other objects are mainly conducted in a Semitic tongue, but, on the basis of secondary Luwian and Pelasgian influences, it can be deduced that this form of Semitic was used, at least to a certain extent, as a *lingua franca* for administrative and religious purposes by representatives of population groups of which the mother tongue was something other than Semitic, namely Luwian or Pelasgian, both belonging, like Greek, to the Indo-European language family. Finally, the Cretan hieroglyphic documents also show evidence for the Semitic language, and even of an occasional Egyptian loan, but in the main these texts bear testimony of a local Cretan dialectal variant of Luwian as the matrix-language, which is otherwise most closely related to Luwian hieroglyphic—the script which, by the way, as we have seen in section I.1.2 above also provided the model for the bulk of the Cretan hieroglyphic signary.

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expected from an Egyptian point of view, by the Egyptian preposition *n* “of”), (4) Pelasgian (*Midas* as traceable as first element in the composite *midʒdʒm*<sup>ε</sup> and *ikʒʒʒw* owing to its correspondence to the name of the Philistine king of Ekron as reported by the Assyrian sources *I-ka-u-su*), and (5) Khurritic (*Našuya*). As we will see below, all these 5 categories can also be found in the by and large contemporaneous epichoric documentary evidence. However, in view of the disproportionately high frequency of Egyptian names in the Egyptian text, it seems, contrary to my first impression, more likely to assume that we are dealing here with Cretan immigrants who had adopted an Egyptian name than with Cretans of ultimately Egyptian background.

As a language is spoken by humans, and these humans often receive names on the basis of traditional considerations, it is only natural, in view of the language situation sketched in the above, for personal names of Luwian, Semitic, Pelasgian, and Greek ethnic background to turn up in the relevant contemporary documentary evidence. Additional categories of names, like Thracian-Phrygian (and Kaskan), Egyptian, and Khurritic, should for the same reason rather be ascribed to more circumstantial contacts in the frame of, for example, international trade or the radiation of political influence. This latter inference to some extent coincides with the toponymic evidence, as place-names which can be ascribed to a certain linguistic entity are likely to be indicative of the actual settlement at the site by its speakers. As such, it is of particular interest that among the relevant toponymic data we actually encounter place-names of Luwian (Tyliossos, Labyrinth),<sup>4</sup> Semitic (Ayalu), and Pelasgian (Gortyns, Lyktos, Pyrgiotissa) affinity, i.e. the three linguistic groups which made up the heart of the Minoan population before its conquest by the Mycenaean Greeks. Note that the naming of the province of the Mesara after *Misr* “Egypt” does not necessarily entail actual colonization of this southern Cretan plain by Egyptians, but might merely reflect a one time political domination. A Greek toponym can only be found in the form of *e-ra-po ri-me-ne* /*Elaphōn limenei*/ “at Stags’ Harbor”, the Greek translation of the Semitic name of Malia, *Ayalu*, in the Pylos tablets (PY An 657.12) dated to the end of the Bronze Age, c. 1200 BC.<sup>5</sup>

For the validity of the identification of the Luwian divine triad consisting of *Tarhunt*, *Santas*, and *Kupapa*, as well as related theophoric personal names in the Cretan context from c. 2000 BC onwards, it is of prime importance that this triad is—though, as it must be admitted, in part only indirectly—, already attested for the Kültepe-Kanesh texts, dated to c. 1920-1750 BC, in form of the GN *Kubabat*

<sup>4</sup> Note the prominence of TNs in *-ss-* and *-nth-* among this group, to which further instances can easily be added, like *a-mi-ni-so* “Amnisos” < PIE *\*am-* “river bed, canal” as reflected in Paphlagonian Ἀμνίας and Hittite *ammiyara-* “canal” (Krahe 1964: 42; Rosenkranz 1966: 139), and possibly *ra-su-to* “Lasithi” < *\*Lasynthos* and *ku-ta-to* < *\*Gurtanthos* in like manner as *ti-ri-to* “Tiryas” points to an earlier *\*Tirynthos*, and which correspond to the typical Luwian TNs in *-ss-* and *-nd-*.

<sup>5</sup> For the identification of this toponym as a reference to Crete, i.e. Malia, see Best 1996-7 [= Best 2011]: 123; for other Cretan toponyms in the Pylos tablets, see *ko-tu-we* “Gortyns (D sg.)” and *o-pi-ke-ri-jo-* “the region near Skheria (= Hagia Triada)”.

and theophoric personal names characterized by the onomastic elements *Tarḫu-*, *Sa(n)ta-*, and *Kubabat* (Laroche 1966: 175, nos. 1255-6; 176, no. 1266; 177, no. 1273 [*Tarḫ-*, as in *Tarḫuala*]; 156, nos. 1097-8 [*Sa(n)ta-*, as in *Sa(n)taḫsu*]; and Hirsch 1961: 28 [GN *Kubabat*, FN *Ṣilikubabat* “Mein Schatten ist Kubabat”]). Furthermore, as stressed in section I.1.1 above on the Luwian hieroglyphic contribution to the Cretan hieroglyphic signary, it is equally vital for the validity of the Luwian connection that: (1) more in general, there is glyptic evidence from various locations in Anatolia and North Syria for the Luwian hieroglyphic script already during this early period of the Middle Bronze Age, *c.* 2000-1650 BC, and (2) in specific, some of the seals or sealings in question bear testimony of the MN *\*Tarḫuntimuwās* as rendered, in the instance of Hogarth no. 154, by the sequence of the goat’s head sign *\*101 TARKU*, the dove sign *\*128 TINTAPU, ti<sub>5</sub>*, and the bull’s head sign *\*107 MUWA, mu*, i.e. (with the exception of the additional fish sign *\*138 wa<sub>8</sub>*) in exactly the same way as it occurs on a seal from Quartier Mu at Malia (Detournay, Poursat & Vandenaabeele 1980: 160, Fig. 231) belonging to the earliest group of Cretan hieroglyphic seals, dating from *c.* 2000 BC onwards (Woudhuizen 2004-5: 171-176). In the legends of this group of Middle Bronze Age Luwian hieroglyphic seals or sealings we also come across the titular expression *taparsa* (< Luwian *tapar-* “to rule, govern”), which, considering the typical Anatolian *d/l*-change, corresponds to the MN *Labarša* as attested for a functionary of lower rank than a king from Khattum (= earlier form of Khattusa) in a dating formula of one of the Kültepe-Kanesh texts,<sup>6</sup> in this manner securing the chronological assignment of the Middle Bronze Age seals in question to the period of *c.* 1920-1750 BC. As we have shown in Table II above, during the subsequent period of Tell Atchana-Alalakh VII (*c.* 1720-1650 BC), this titular expression appears in variant form of *taparna-*,<sup>7</sup> which, likewise by means of the typical Anatolian *d/l*-change, corresponds to *labarnaš* of the Old Hittite period (*c.* 1680-1500 BC), which in turn is

<sup>6</sup> Lewy 1971: 713 “When Labarsha took over the princely functions”.

<sup>7</sup> Note that the titular expression in the legend of seal no. 154 from Tell Atchana-Alalakh, level VII, and hence dating to *c.* 1720-1650 BC, occurs in abbreviated form *tapar-*, which leaves the matter undecided whether it belongs to the earlier variant *taparsa-* or *labarsa-* or the later variant *tabarnas* or *labarnas*, but, if our reading *ta<sup>2</sup>+PÁRANA* on the Indilima seal is correct, which is assigned to the period of level VII of Tell Atchana-Alalakh for stylistic considerations, the later variant of this honorific title can positively be shown to date from this period onwards.

also reflected in the ruler name *Labarnaš*. Now, this latter “modern” variant *labarnas* happens to be attested for the Cretan hieroglyphic seal # 271 of a ruler of *Saħarwa* or Skheria (= modern Hagia Triada) in the Mesara<sup>8</sup> but actually found in the palace of Malia, which allows us to finetune the dating of this particular seal, reported to have been found above a Middle Minoan IA layer, by assigning it to the late 18th or early 17th century BC. Finally, in the legends of this early group of seals or sealings we are already confronted with the Luwian verbal root *piya-* as rendered by the hand sign \*66 in the wish-formula “given life”, attested in full for a sealing on a Cappadocian tablet from the Kültepe-Kanesh period known as Walters Art Gallery 48.1464 where the hand occurs in direct association with the Syrian variant of the Egyptian *ankh*. Mostly, however, this formula occurs in abbreviated form without the *ankh* sign, in which form it is paralleled for Cretan hieroglyphic seals and sealings, like # 126 from Malia (though, it rather seems to function as a transaction term here). Apart from this, the Cretan hieroglyphic counterpart of the Luwian hieroglyphic hand sign (LH \*66) is used for the expression of the verb “to give” more in general in the legend of the sealings # 003γ and # 139 from Knossos. In order to be complete, it also should be noted that the Luwian verbal root *piya-*, in like manner as in Anatolia already during the Kültepe-Kanesh period (cf. *Nanapí*, *Suħurpía*, etc.), sparked off in the realm of Cretan onomastics as exemplified by the Linear B evidence.

It deserves our attention in this connection that we owe further data on Luwian onomastics from the Kültepe-Kanesh tablets to Ilya Yakubovich’s recent dissertation of 2008(= Yakubovich 2010: 208-223), which partly draws from unpublished material kindly made available by Jan G. Dercksen of the Netherlands Institute for the Near East at Leiden. Of direct impact to our present topic is his determination as Luwian of the onomastic elements *Tiwat-* “sun-god”, *Santa-* “war-god”,<sup>9</sup> *Ru(wa)t-* “stag-god”, *muwa-* “strength”, *nana-*

<sup>8</sup> Best & Woudhuizen 1989: 69; Woudhuizen 1992a: 32-33; 42-47. Cf. also the titular expression *tapa(r)* in the later Linear A tablets from Hagia Triada (HT 104.1), see Woudhuizen 2006b: 51 or the end of section II.1 above.

<sup>9</sup> In section II.9, notes 9 and 11 above I have dealt with the complications of fitting the Luwian divine triad Santas, Kupapa, and Tarkhunt into the Dumézilian trifunctional framework. Suffice it to repeat here that Santas as of origin a tutelary deity (F3) may have taken over the position of the storm-god (F2) when the latter usurped the central position of the sun-god (F1). In any case, Santas is directly associated with divinities who wear bloodied clothes in various versions of the Zarpiya ritual,

“brother”, *tapara-* “to rule”, and *zita-* “man”. In a number of cases, this determination is based on sound-laws typically for Luwian, like the regular loss of voiced velars which affects *nana-* “brother” < PIE \**n̥-g̑en*<sub>h</sub><sub>1</sub>- as well as yet another onomastic element, namely *wawa-* “ox” < PIE \**g<sup>w</sup>ow-*. To this group singled out by typically Luwian phonetic developments may arguably also be classified the case of the stag-god *Ru(wa)<sup>n</sup>t-*, whose name through the intermediary of the typologically earlier form *Kurunt-* probably originates from PIE \**k̑erh*<sub>1</sub>- “horn”. If we realize, then, that the value of the Luwian hieroglyphic ox or ox-head sign \*105 UWA, *u* bears testimony of one of the sound-laws mentioned (viz. loss of voiced velars), it is of vital importance for the genetic relationship of Cretan hieroglyphic with Luwian hieroglyphic as advocated here that *the given Luwian sound-laws or phonetic developments as attested already for the earliest set of documents from the Kültepe-Kanesh phase*, in view of the personal names *Náná-lu*, *Muwas* (written as *m+UWA* in like manner as the Luwian hieroglyphic sign \*107 MUWA, *mu*), and *Ruwantas* or *Rumtas*, are also characteristic of the local Luwian dialect in Crete as recorded in form of Cretan hieroglyphic, as we have noted in the above, from c. 2000 BC onwards!

Working from this observation onwards, it subsequently turns out that in a number of instances these typically Luwian soundlaws or phonetic developments are not applied and that we are dealing with exceptions to the rule. This applies to the toponyms *pa<sub>5</sub>-ki-wa<sub>8</sub>* or *pa<sub>3</sub>-ko-we* “Pyrgiotissa” < PIE \**b<sup>h</sup>r̥g̑<sup>h</sup>(i)-* “high”, *ku-ta-to* or *ko-tu-we* (D sg.) “Gortyns” < PIE \**g<sup>h</sup>ord<sup>h</sup>-* “city, town”, and *ru-ki-to* “Lyktos” and *lu-ka* “Lycian” < PIE \**l(e)ug<sup>h</sup>-* “to bind”, in which the voiced velars [g<sup>h</sup>] and [g<sup>h</sup>] are not lost, but preserved and represented by a velar. To the same category may be added the instances in which the PIE laryngeal \*[h<sub>2</sub>], which in the IE Anatolian languages as a defining feature of this language group is represented by [ḫ], has been dropped as in case of Ἄσπερίων < PIE \**h<sub>2</sub>stér-* “star” and *a-ra-kū* or *a-ra-ko* “falcon”, a diminutive in *-ko-* of Luwian *ara-* “eagle” < PIE \**h<sub>2</sub>er-/h<sub>3</sub>or-* “eagle”. As I have argued in Woudhuizen 2016: 81-95, *these phenomena can in the western Anatolian Luwian context be attributed to an Old Indo-European substrate, the speakers of which are*

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(Yakubovich 2010: 282-283) and, given the fact that the color red is typical of F2, this may be indicative of his identification as a war-god in the specific context.

*positively identifiable as Pelasgians.* The same verdict no doubt applies in the Cretan Luwian context as well.

In the western Anatolian Luwian context, moreover, to this particular layer of Old Indo-European substrate also may be attributed the hydronyms *Seḫa* “Maiandros” and *Saḫiriya* “Sangarios”, which are based on the PIE root *\*seik<sup>w</sup>*- “to seep, soak” in like manner as Gaulish *Sequana* “Seine” (Pokorny 1959: 893). Again, in the Cretan Luwian context, the same verdict may well hold true for the related toponym *sa<sub>3</sub>-ḫár-wa<sub>10</sub>* or *sà-ḫur-wa<sub>9</sub>* “Skheria (= Hagia Triada)”. It might be added to this that in the realm of toponyms the Old Indo-European substrate in question, not only in Anatolia but also in Greece and the northern Mediterranean coastal region in general, is represented by place-names in *-st-* (Woudhuizen 2016: 61 ff., esp. 65, Table III; 75). Accordingly, the TNs Φαιστός (LA *pa-ya-ta* [KN Zf 13]; LB *pa-i-to* [KN Da 1156+; etc.]) and Λύκαστος (Homer, *Iliad* II, 647) may well be considered indicative of its presence in Crete.

More in general, it deserves our attention in this connection that the *centum*-nature of the Old Indo-European substrate in question in the Cretan Luwian context is assured by the velar reflex of palatal *\*[ḡ<sup>h</sup>]* in the toponym *pa<sub>5</sub>-ki-wa<sub>8</sub>* or *pa<sub>3</sub>-ko-we* “Pyrgiotissa” < PIE *\*b<sup>h</sup>rḡ<sup>h</sup>(i)-* “high”.

In the following, then, a fully referenced list is presented of the ethnically distinct personal names (note that the male names [MN] are, for their high frequency, not specied as such, only the more rare female [FN] ones), including divine names (GN) and place-names (TN) or country names. Note that as much as 20 of the listed items have an occurrence in more than one of the different classes of documentary evidence, which considerably enhances their evidential value. The numbering of the texts referred to follows that of the relevant corpora, which means for Cretan hieroglyphic that of Olivier & Godart 1996 (= CHIC), for Linear A that of Godart & Olivier 1976-1985 (= GORILA 1-5; for the Hagia Triada texts, the consultation of Brice 1961 and Meijer 1982 is still useful), and for Linear B that of Ventris & Chadwick 1973 (with still valuable glossary). Basic works on Anatolian onomastics are Houwink ten Cate 1961, Laroche 1966, and Zgusta 1964; on Thracian onomastics, see Detschew 1976.

NAME	ATTESTATION	PARALLEL
<b>I. Luwian</b>		
1. <i>ta-ra-ku</i> ( <i>tīrkʷ</i> ) <i>TARKU</i> , <i>TARḪU(NT)</i>	Eg. Keftiu spell CH # 054, etc.; # 333, A13	<i>Tarḫunt-</i> (GN) <sup>10</sup>
2. <i>sa-n-ta</i> ( <i>snti</i> )	Eg. Keftiu spell	<i>Santas</i> (GN) <sup>11</sup>
3. <i>ka-pu-pi</i> ( <i>kʷpwpɣ</i> )	Eg. Keftiu spell	<i>Kupapa-</i> (GN)
4. <i>da-ba-r</i> ( <i>dʷbʷr</i> )	Eg. Keftiu names	<i>Daparas</i> <sup>12</sup>

<sup>10</sup> Identification by Hall 1915: 230; accepted by Wainwright 1931: 27 and Huxley 1961: 23. In the same manner as we are confronted with lenition of the voiceless velar [k] into [h] (= [kh]) in Luwian hieroglyphic, see Woudhuizen 2011a: 409-410, also the reversed, i.e. fortition of [h] into [k], can be incidentally observed, particularly in case of the GN *Tarḫunt-* which in the earliest group of Luwian hieroglyphic seals from the Middle Bronze Age (c. 2000-1650 BC), the distribution of which covers the entire southwestern zone of Anatolia from Aydin in later Lydia (stamp-cylinder seal Louvre AO 20.138) to Tell Atchana-Alalakh in North Syria (Collon no. 154), is rendered by the goat-head sign \*101 *TARKU*. Note that this feature, as duly observed in Woudhuizen 2011a: 412-413, forms a prelude to the regular velar representation of [h] in the later Luwian dialects Lycian (*Trqḫnt-*, *Trqqas*, *Trqqiz*), Carian (Ταρκωνδαρεύς, Ὀτροκωνδεῖς), and Lydian (Ταργυηνός).

<sup>11</sup> This and the next identification by Bossert 1932: 6-7; accepted by Huxley 1961: 23 and Helck 1987: 100 f. Note that the Cretan form of *Kupapa*, *kʷpwpɣ* or *kapupi*, shows interchange between [a] and [u], which also typifies the Luwian dialect as attested for Cretan hieroglyphic inscriptions, cf. the prepositions *atu* “in”, *anu* “under”, and *upa* “behind” corresponding to the Luwian hieroglyphic postpositions *ata*, *ana*, and *apa*. Furthermore, it deserves attention that its final vowel *-i*, if correctly identified as such, may, considering the fact that the spell in question as far as matters of grammar are concerned is conducted in the Semitic language (*wʷy* or *wa-ya* = Phoenician *wy* “and”, *iyim'n* or *'a-ja-ma-n* = Semitic *'immanu* “with us” as in Biblical *'immanu'el* “with us god”), perhaps be indicative of the Semitic G sg. in *-i*.

<sup>12</sup> Woudhuizen 1992a: 1-2; Best & Woudhuizen 1989: 126. Attested for the Lycian bilingual inscription TL 6, where it appears in form of *Λαπάρας* in the Greek translation, see Houwink ten Cate 1961: 87-88 (< Luwian *tapar-* “to rule” in like manner as the titular expression *taparsa-/labarsa-* or *tabarnas/labarnas*, cf. Houwink ten Cate 1961: 158-159). For the typical Anatolian *d/l*-change, cf. LB *da-pu<sub>2</sub>-ri-to-jo* “Labyrinth” as based on Lydian *λαβρυς* “double axe” and LA *ne-si-di* corresponding to Hittite *našili-* “Hittite” as referred to in the following. Note that Egyptian *d* expresses a sibilant in *mī-dʷ-n-iʷ* “Messenia” from the list of Aegean place-names of Amenhotep III’s temple tomb at Kom el-Hetan (Cline 1987: 26-29, Table 2; cf. Cline 2001; Edel & Görg 2005: 161-191 with Faltafel 2), but it should be realized in this connection that the Egyptian rendering of Anatolian dentals is sometimes inexact as may be illustrated by the case of the Egyptian rendering of Carian *Darqpeon* (cf. Ταρκουμβιος, a Cilician theophoric name from the Hellenistic period combining the GN *Tarku-* with the verbal root *piya-* “to give” analogous to

NAME	ATTESTATION	PARALLEL
<i>tá-PÁRA</i>	CH # 314, 1	
5. <i>ru-w-an-ta</i> ( <i>rwwwnti</i> )	Eg. Keftiu names	<i>Ruwantias</i> (GN) <sup>13</sup>
<i>ru-ma-ta</i>	LA HT 29.1; 99b.2	<i>Rum/nt-</i> (GN) <sup>14</sup>
6. <i>py-na-ru-ti</i> ( <i>pynʒrwt</i> )	Eg. Keftiu names	<i>pina</i> <sup>15</sup>
7. <i>TARKU-ti<sub>5</sub>-m+UWA</i>	CH QMu 1980, Fig. 231	<i>Tarkuntimuwas</i> <sup>16</sup>
8. <i>m+UWA</i>	CH # 213, 1	<i>muwa-</i> “strenght”,
<i>MUWA</i>	CH # 253, 1; # 264	<i>Muwas</i> <sup>17</sup>
9. <i>TARKU-MUWA</i>	CH # 271, 3	<i>Tarku(nti)muwas</i> <sup>18</sup>
10. <i>TARKU-</i>	CH # 193; # 310, 3	<i>Tarku-</i>
11. <i>PÁRA-tá-rú</i>	CH # 296, 2	<i>Bartaras</i> <sup>19</sup>
13. <i>sà-ta<sub>6</sub>-</i>	CH # 272, 1	<i>Santa-</i>

Greek Ἀπολλόδορος or Ἀπολλόδοτος, see Houwink ten Cate 1961: 127) as Šrkbym in a bilingual inscription from Saqqara (E.Sa 1, cf. Adiego 2007: 32-3; 194) dating to the 7th or 6th century BC.

<sup>13</sup> Woudhuizen 1992a: 2, note 6. This divine name is used as an onomastic element in theophoric Luwian MNs like *Ru(wa)<sup>n</sup>tía* as attested already for the Kültepe-Kanesh texts and *Halparuntias* as recorded for seals or sealings from the Late Bronze Age. It originates from an earlier *Kuruntas* < PIE \**kerh<sub>1</sub>*- “horn” as a result of the phonetic development *kuru* > \**kru* > *ru*. The Indo-European root is, both in Luwian hieroglyphic (\*102-3 *KURUNT* or *KARUWANT*, *kar*, *RUWANT*, *rú*) and Cretan hieroglyphic (E99 or CHIC028 *rú*) expressed by the deer or deer-antler sign.

<sup>14</sup> This divine name, which constitutes nothing but a Lycian reflex of the foregoing Luwian *Ruwantias*, likewise finds application as an onomastic element in theophoric MNs, see Houwink ten Cate 1961: 128-131.

<sup>15</sup> Wainwright 1931: 36; cf. Laroche 1966: 114, no. 1003 (*Pí-na-u-ra-aš*; compound of *pina-* with Luwian *ura-* “great”) and Zgusta 1964, s.v. *Pinatra*, *Pinesamuas* (compound of *pina-* with Luwian *muwa-* “strength”, connected by an enigmatic element *-sa-*), and *Pinnarma* (compound of *pinna-* with Luwian *Arma-* “moon-god”).

<sup>16</sup> Woudhuizen 2004-5: 171-176.

<sup>17</sup> Laroche 1966: 122, no. 832 (*Mu-u-wa-aš*).

<sup>18</sup> Best & Woudhuizen 1989: 113-119; Woudhuizen 2006b: 81. The closest comparative evidence for this name is provided by Cilician Ταρκτιμωσ and Alexandrian Ταρκομωσ from the Hellenistic period, see Houwink ten Cate 1961: 127.

<sup>19</sup> Best & Woudhuizen 1989: 126; Woudhuizen 2006b: 81. Lydian, see Gusmani 1964: 264, no. 40, 2; likely related to Luwian hieroglyphic *Paratas* as recorded for inscriptions from the region of Hamath (Hawkins 2000: 405; 409) if we realize that the “thorn” sign \*383, 2 +*ra/i* is sometimes omitted by the scribes apparently by oversight and a reconstruction as *Parata<ra>s* is therefore conceivable.

NAME	ATTESTATION	PARALLEL
14. <i>sà-ta-te</i>	CH # 182	<i>Sandatis</i> <sup>20</sup>
15. <i>sà-tí<sub>6</sub></i>	CH # 247	<i>Sandēs</i> <sup>21</sup>
16. <i>á-ḥár-ḥù</i> <i>á-ḥar<sub>1</sub>-ku</i>	CH # 332, 1 CH # 333, B17	<i>Akarkis</i> <sup>22</sup>
17. <i>á-à</i>	CH # 297, 3	<i>Aas</i> <sup>23</sup>
18. <i>a-ya</i>	CH # 276, 1	<i>Ayas</i> <sup>24</sup>
19. <i>MUWA-ti</i>	CH # 302, 3(?)	<i>Muwattis</i> (FN) <sup>25</sup>
20. <i>ná-ná-lu</i>	CH # 287, 1	<i>Nanazitis</i> <sup>26</sup>
21. <i>ta<sub>5</sub>-ta<sub>6</sub></i>	CH # 297, 2	<i>Tattas</i> <sup>27</sup>
22. <i>ú-wa<sub>8</sub></i>	CH # 333, B15	<i>Uwas</i> <sup>28</sup>
23. <i>(pa<sub>5</sub>-lu-)zí-ti<sub>8</sub></i>	CH # 328	<i>ziti-</i> “man” <sup>29</sup>
24. <i>a-lu-na-ku-ya</i>	LA Monte Morrone	<i>alu-</i> + <i>*nek<sup>w</sup>-</i> “night” <sup>30</sup>
25. <i>ti-ti-ku</i>	LA ZA Zb 3; HT 35.1	<i>Titis</i> (FN) <sup>31</sup>

<sup>20</sup> Cilician from the Hellenistic period, see Houwink ten Cate 1961: 137.

<sup>21</sup> Houwink ten Cate 1961: 137.

<sup>22</sup> Best & Woudhuizen 1988: 64; 76; Best & Woudhuizen 1989: 99; most recently and comprehensively, see Achterberg e.a. 2004: 98 with reference to Laroche 1966: 24, no. 14 (*A-ka-ar-ki-iš*).

<sup>23</sup> Laroche 1966: 23, no. 1 (*A-a-*). Cf. the Luwian hieroglyphic GN *Aā-* “Ea”, see Woudhuizen 2004b, IEA Index, s.v.

<sup>24</sup> Laroche 1966: 23, no. 3 (*A-i-ya-aš*). Note that this personal name is related to Luwian hieroglyphic \*21 (= \*19 + \*337) *á-yá-* “hero” < PIE *\*yeh<sub>1</sub>-* “to do, make”; cf. also Lycian *iya-* as in *ijase hr̥m̥nā* “heroic altar” (TL 149, 13; 84, 4).

<sup>25</sup> Laroche 1966: 124, no. 838 (*Mu-u-wa-at-ti-iš*).

<sup>26</sup> Laroche 1966: 127, no. 860 (*Na-na-LÚ-in* [A sg.]); cf. Luwian hieroglyphic *nana-* and Lycian *nēni-* “brother, relative” (< PIE *\*n-ǵenh<sub>1</sub>-* as per Neumann 1991), see Houwink ten Cate 1961: 142-4, and *ziti-* “man; official”.

<sup>27</sup> Laroche 1966: 181, no. 1301 (*Ta-a-at-ta-aš*); for Luwian hieroglyphic, see Woudhuizen 2015a: 298. Cf. *tati-* “father” < PIE *\*t-at-*, Mallory & Adams 2007: 515.

<sup>28</sup> Best & Woudhuizen 1988: 64; Best & Woudhuizen 1989: 99, note 50; with reference to Laroche 1966: 200, no. 1461 (*Ú-wa-a-*); Achterberg e.a. 2004: 98.

<sup>29</sup> Best & Woudhuizen 1989: 107; Woudhuizen 2006b: 112.

<sup>30</sup> For the first element, cf. that of Hittite or Luwian *Aluluwa*, *Alluwa*, *Alluwamna*, and *Aluwazi*, see Laroche 1966: 28, nos. 38-41; cf. also the first element of the Lydian royal name *Alyattes* and the Phrygian divine name *Alus* (= related to Latin *alu-mnus* “fosterling”), Waanders & Woudhuizen 2008-9: 196-197; for the second element, cf. Hittite *neku-* “to become twilight” and *neku-* “twilight, evening” (comparable to Greek νέκυα “sacrifice to the dead” and νύξ, G νυκτός “night”); see further section II.7 above.

<sup>31</sup> Zgusta 1964, s.v.; Woudhuizen 2006b: 50.

NAME	ATTESTATION	PARALLEL
26. <i>ra-nū-te</i>	LA KN Zf 13	<i>Arnutas</i> <sup>32</sup>
27. <i>pi-ke</i>	LA KN Zf 13	<i>Piḫas</i> <sup>33</sup>
28. <i>ne-si-di-</i>	LA KN Zf 13	<i>Našili-</i> “Hittite” <sup>34</sup>
29. <i>wa-du-ni-mi</i>	LA HT 6b.1; 85b.4-5	<i>Badunimis</i> <sup>35</sup>
30. <i>(e-ri-)ta-qi-jo</i>	LB KN As 604	<i>Tarku-</i> <sup>36</sup>
31. <i>(e-ri-)sa-ta</i>	LB KN Nc 4474	<i>Santa-</i>
32. <i>ti-wa-ti-ja</i>	LB KN Ap 618	<i>Tiwata-</i> “sun-god”
33. <i>pi-ja-mu-nu</i>	LB KN Ap 5748	<i>piya-</i> “to give”
34. <i>pi-ja-se-me</i>	LB KN As 1516	
35. <i>pi-ja-si-ro</i>	LB KN As 1516	
36. <i>wi-ja-ma-ro</i>	LB KN As 1516	<i>wiyana-</i> “wine”
37. <i>wi-ja-na-tu</i>	LB KN Ap 769	
38. <i>sa-pi-ti-nu-wo</i>	LB KN As 1516	<i>śaptili-</i> “?” <sup>37</sup>
39. <i>sa-pi-ti-ne-we-jo</i>	LB KN F 841	
40. <i>ma-re-wa</i>	LB MA Z 1 (ISJ)	<i>Mala-</i> <sup>38</sup>
41. <i>ku-pa<sub>3</sub>-na-tu</i>	LA HT 47a.1/2; 119.3	<i>Kupanta-</i> <sup>39</sup>
<i>ka-pa<sub>3</sub>-na-to</i>	LB KN As 1516	
42. <i>da-pu<sub>2</sub>-ri-to-jo</i>	LB KN Gg 702	λαβρυς “double axe” <sup>40</sup>
43. <i>tu-ri-so</i>	LB KN Ce 59; Db 1241	<i>tuliyašši-</i> <sup>41</sup>

<sup>32</sup> Laroche 1966: 41-42, no. 148 (*Ar-nu(-wa)-an-da/ta-*); Woudhuizen 2006b: 60-61 or section II.6 above also for the following two identifications.

<sup>33</sup> Laroche 1966: 139, no. 962 (*Pi-há-a*).

<sup>34</sup> Friedrich 1991, s.v. *nāšili-*.

<sup>35</sup> Lycian, see Kalinka 1901: 42, no. 44, lines 39-40; identification by Meriggi 1956: 6, referred to by Pope (1964: 5) and included in Billigmeier 1970.

<sup>36</sup> Billigmeier 1970: 178-83, also for the following four forms; cf. Landau 1958, s.v. *pi-ja-* and *ti-wa-ti-ja*; Heubeck 1961: 56-57 (*pi-ja-* and *wi-ja-*); note that Hittite *wiyana-* and Luwian hieroglyphic *wiana-* “wine” are clearly distinct from Mycenaean Greek *wo-no*  $\text{F}\acute{\omicron}\iota\nu\omicron\varsigma$ , even though both forms ultimately originate from Semitic \**wainu*.

<sup>37</sup> Woudhuizen 2015a: 289 (*śa-pa-ti-li-*). Note that the second element of *sa-pi-ti-nu-wo* constitutes a Greek reflex characterized by *o* for *a* concerning the final vowel of Luwian *nuwa-* as referred to above.

<sup>38</sup> Laroche 1966: 110, no. 725 (*Ma-la-zi-ti-*); cf. Woudhuizen 2006a: 105-106, with reference to Lydian and further Cretan parallels.

<sup>39</sup> Woudhuizen 2011a: 440 (Arzawan royal name *Kupantakuruntas*); participle of the active in *-nt-* of *kupa-* “to desire” < PIE \**kup-*, see Pokorny 1959: 596.

<sup>40</sup> Lydian gloss, see Gusmani 1964: 275.

<sup>41</sup> Schachermeyr 1962: 37; Luwian adjectival derivative in *-ašši-* of Hittite *tuliya-* “assembly”, see Melchert 1993a, s.v.

NAME	ATTESTATION	PARALLEL
44. <i>ka-ra</i> ( <i>k3r</i> )	Eg. Keftiu spell	<i>Karkiša</i> “Caria” <sup>42</sup>
45. <i>á-sú-wi-ya</i> <i>a-si-ya-ka</i> <i>a-si-wi-jo</i>	CH # 333, B11 LA HT 28a.1; b.1 LB KN Df 1469	<i>Aššuwa</i> “Asia” <sup>43</sup> (country name)
46. <i>ru-wa-ni-jo</i>	LB KN X 7706+8108	<i>Luwiya-</i> , <i>Luwana</i> “Luwiya” (country name), <sup>44</sup> cf. <i>Luwili</i> “in Luwian”
28. <i>ne-si-di-</i>	LA KN Zf 13	<i>Našili-</i> “Hittite”
<b>II. Semitic</b>		
1. <i>a-sa<sub>1</sub>-sa<sub>1</sub>-ra-</i> <i>a-sa-sa-ra-</i>	CH # 135-7; etc. LA KN Za 10; etc.	<i>Asherah</i> (GN) <sup>45</sup>
2. <i>ti-ni-ta</i>	LA HT 27a.1	<i>Tanit</i> , <i>Tinit</i> (GN) <sup>46</sup>
3. <i>á-du</i> <i>a-du</i>	CH # 333, B3 LA HT 85a.1; etc.	<i>Haddu</i> , <i>Hadad</i> (GN) <sup>47</sup>

<sup>42</sup> Woudhuizen 1992a: 7-8. Cf. especially Akkadian cuneiform [*a-na*] *Ka-ra-i-[i]m* “to the Carian” as recorded for one of the Mari tablets from the reign of Zimrilim sometime during the first half of 18th century BC, see Dossin 1970: 99, Tablet A 1270, line 30.

<sup>43</sup> Best & Woudhuizen 1988: 51; 57-58; Woudhuizen 1992a: 27-28; 33; Achterberg e.a. 2004: 9; 115-118; Woudhuizen 2006b: 30. Note that the loss of the *wau* in the Linear A form is paralleled for Linear A *i-da-* < PIE \**wid<sup>h</sup>u-* “tree” as in the GN *i-da-ma-te* “Idaian Mother” (see below), in like manner as for Linear B *i-da-i-jo* occurring alongside the expected *wi-da-jo* for the MN Ἰδαίος already in the Knossos tablets (cf. also the Knossian MNs *wi-da-ka-so*, *wi-da-ma-ro*, and *wi-da-ma-ta<sub>2</sub>*, characterized by the same onomastic element in first position), see further Georgiev 1966.

<sup>44</sup> Widmer 2006, who further informs us that the country name *Luwiya* or *Luwana* is now paralleled in Egyptian hieroglyphic in newly found inscriptions from the temple tomb at Kom el-Hetan (Thebes) of Amenhotep III (1390-1352 BC), where it occurs in form of *R/Lawana* or *R/Luwana* (*r<sup>1</sup>wn*) and in direct association with *Iunia A’a* (*i<sup>1</sup>ynw a’a*) “Great Ionia”, see Sourouzian & Stadelmann 2005: 82, Abb. 6 and cf. the Knossian Linear B ethnic *i-ja-wo-ne* “Ionians” for the latter geographic name, suggestive of some political relationship in like manner as the association of *Asya* (*i<sup>1</sup>sy*) “Assuwa” with *Keftiu* “Crete” in the annals of Tuthmosis III (1479-1425 BC), see Achterberg e.a. 2004: 115.

<sup>45</sup> Platon 1958: 313, note 22 (*Asherat*); Best 1981b: 15; 20; Best & Woudhuizen 1988: 20; 25-6; Best & Woudhuizen 1989: 18-24 (*Asherah*).

<sup>46</sup> Best 1972: 34; Best 1981b: 21; Best & Woudhuizen 1988: 27-29.

<sup>47</sup> Best 1972: 23; 34; cf. Mulder 1980; Best 1981b: 21.

NAME	ATTESTATION	PARALLEL
4. 'í-ša-ḥa-ra ( <i>išḥwr</i> )	Eg. Keftiu names	<i>Išḥara</i> [GN] <sup>48</sup>
5. <i>pa<sub>5</sub>-lu(-zī-ti<sub>8</sub>)</i>	CH # 328	<i>Ba'al &lt; b'l</i> “ruler”
6. <i>pí-ni</i>	CH # 180	<i>Ben &lt; bn</i> “son”
7. <i>ya-ta<sub>6</sub>-le</i>	CH # 258, 1	<i>Yatar</i> <sup>49</sup>
8. <i>ma<sub>6</sub>-bu</i>	CH # 283, 1	<i>Mabu'u</i> <sup>50</sup>
9. <i>da-we-de</i>	LA HT 10a.4; etc.	<i>David</i> <sup>51</sup>
10. <i>ka-ni-ya-mi</i>	LA KR (?) Zf 1	<i>Kn'm (FN)</i> <sup>52</sup>
11. <i>ku-pa<sub>3</sub>-nu</i>	LA HT 1a.3; etc.	<i>Gpn</i> <sup>53</sup>
<i>ka-pa<sub>3</sub>-no</i>	LB KN Df 1219	
12. <i>qa-qa-rū</i>	LA HT 93a.4-5; etc.	<i>qaqaru-</i> “talent” <sup>54</sup>
<i>qa-qa-ro</i>	LB KN As 604	
13. <i>a-ya-lu</i>	CH # 310, 2	<i>ajalu-</i> “stag” <sup>55</sup>
<i>a-ya-lu</i>	LA KN Zf 13	
14. <i>pū-ni</i>	LA KO (?) Zf 2	“Punic” <sup>56</sup>
<i>po-ni-ki-jo</i>	LB KN Ga 418; Og 424	φοινίκιον <sup>57</sup>

<sup>48</sup> Albright 1934: 21, note 88; cf. Astour 1964: 249, who specifies this name as a compound of Semitic 'iš “man” with the Semitic reflex *Hr* of the Egyptian divine name Horus, but according to Prechel 1996: 166-169 its identification is uncertain. Note that this deity was venerated a.o. on mount *Išhara* near Tarsos, see Haider 2006.

<sup>49</sup> Ugaritic *Ytr*, see Gröndahl 1967, s.v.

<sup>50</sup> Ugaritic royal name, see Freu 2006: 23-24; cf. Freu 2006: 159: *Ma'abu* = *Máb* or Bordreuil & Pardee 2009: 236 (RS 15.008, 11).

<sup>51</sup> Gordon 1966: 32; Pope 1964: 5.

<sup>52</sup> Ugaritic, see Best & Woudhuizen 1989: 28.

<sup>53</sup> Ugaritic, see Pope 1964: 5; Best 1972: 33-35; Best 1981b: 38.

<sup>54</sup> Akkadian cuneiform as found in, for example, the Alalakh texts and, in form of *kkr*, Ugaritic, see Best 1981b: 13.

<sup>55</sup> Best 1996-7 [= Best 2011]: 116, who rightly identifies *Ayalu* as the Semitic name of Malia, also referred to, as we will see in note 70 below, by its Luwian designation as *ru-ki-to* “Lykto”; for the general type of this name, cf. Biblical 'Ajjalon (*Joshua* 10:12; *Judges* 1:34-36) or, more in general, Mycenaean Greek (LB PY An 657.12) *e-ra-po ri-me-ne* [*Elaphōn limenei*] “at Stags' Harbor” (refers to Malia as per Best 1996-7: 123) and Messapic *Brundisium* or *Brentēsion* < PIE \**b<sup>h</sup>rent-* “stag”.

<sup>56</sup> It is interesting to note in this connection that the ethnonym *Phoinikes* is analyzed by Markoe 2000: 36 as a compound of the root *puni-* with a suffix *-k-*, which can also be traced in, for example, *Phaia-k-es*, *Muš-k-i*, and in the Italic context, *Etrus-c-i*, *Falis-c-i*, *Itali-c-i*; for the Old Indo-European nature of this ethnic suffix, see Woudhuizen 2016: 62.

<sup>57</sup> Ventris & Chadwick 1973: 222 “Phoenician spice”.

NAME	ATTESTATION	PARALLEL
<b>III. Pelasgian</b>		
1. <i>da-ma-te</i>	LA KY Za 2	Δαμάτηρ (GN) (with <i>da-</i> “earth” < Phrygian <i>gda-</i> ) <sup>58</sup>
2. <i>po-se-da-o-ne</i> (D sg.), <i>po-se-da-o-no</i> (G sg.)	LB KN V 52 LB KN X 5560	Ποσειδόν (GN) “Lord of the Earth” (with <i>da-</i> “earth” < Phrygian <i>gda-</i> )
3. <i>i-da-ma-te</i>	LA AR Zf 1-2	“Idaïan Mother” (GN)
4. <i>mi-da</i> <i>mi-dʒ(-dʒ-mʹ)</i>	LA HT 41.4 Eg. Keftiu names	Μίδας
5. <i>i-k-ʒ-ʒ-ʒ-w</i>	Eg. Keftiu names	<i>I-ka-u-su</i> <sup>59</sup>
6. <i>ku-na-wa</i> <sub>10</sub> <i>ku-ne-u</i>	CH # 333, B12 LB KN Da 1396	Γουνεύς <sup>60</sup>
7. <i>nú-wa</i> <i>(sa-pi-ti-)nu-wo</i>	CH # 314, 3 LB KN As 1516	<i>Nuwa</i> - <sup>61</sup>
8. <i>ARA-ta</i> <sub>4</sub>	CH # 300, 2	<i>Arantas</i> <sup>62</sup>

<sup>58</sup> Woudhuizen 2006a: 143-146; Woudhuizen 2006b: 52-53 (also for the following identification). Note, however, that the typically Pelasgian form of earlier *gda-* is also represented in Phrygian in form of the GN *Da-* as attested for an Old Phrygian inscription from the region of Midas city, W-10, running as follows: *Alus sit,eto Das* “Let Alys, the son of (Mother) Earth, be nourished”, see Waanders & Woudhuizen 2008-9: 196-197.

<sup>59</sup> Philistine king of Ekron as recorded for the annals of the Assyrian great king Ashurbanipal (669-630 BC), see Brug 1985: 199.

<sup>60</sup> Best & Woudhuizen 1988: 76; Woudhuizen 2006a: 103-104; Woudhuizen 2006b: 119, note 39. See García Ramón 2011: 228 for the relationship of the root of this name to Greek κυνώ “bitch” < PIE \**k̑(u)wōn* “dog”.

<sup>61</sup> Best & Woudhuizen 1989: 126; Woudhuizen 2006b: 81. Add to Laroche’s (1966: 132, no. 900) reduplicated *Nu-wa-nu-wa-* the Late Bronze Age Karkamisian royal name *Ša-ḫu-ru-nu-wa-aš* (Laroche 1966: 153, no. 1076), of which the first element consists of the river name *Saḫur-* or, in Early Iron Age variant form, *Sakara-* “Sangaras”, which refers to a tributary of the Euphrates, the *Sagūru*. Also in place-names, cf. Luwian hieroglyphic *Tuwanuwa-* “Tyana” (del Monte & Tischler 1978, s.v.), no doubt “New Foundation” < Luwian hieroglyphic *tuwa-* “to place, put, erect” and a reflex of PIE \**newo-* “new”, otherwise occurring in Luwian hieroglyphic in form of *nawa-*, see Woudhuizen 2011a: 401 and therefore likely to be attributed to an Old Indo-European substrate, see Woudhuizen 2016: 62-64.

<sup>62</sup> Bithynian MN of Celtic origin, see Sergent 1988: 346; 353.

NAME	ATTESTATION	PARALLEL
9. <i>a-ra-kū</i> <i>a-ra-ko</i>	LA KO (?) Zf 2 LB KN As 607; etc.	<i>Aραχα</i> <sup>63</sup>
10. <i>te-u-to</i>	LB KN Xd 292	* <i>teutā</i> - “people”
11. <i>aper<sub>2</sub>-ya</i>	CH # 256	“Eburia” <sup>64</sup>
12. <i>ku-ta-to</i> <i>ko-tu-we</i> (D sg.)	LB KN Ce 59; etc. LB PY An 233; etc. <sup>65</sup>	<i>Kurtalisa</i> , Γόρδιον (TN)
13. <i>pa<sub>5</sub>-ki-wa<sub>8</sub></i> <i>pa<sub>3</sub>-ko-we</i> <sup>66</sup>	CH # 303, 4 LB KN Ap 618; etc.	<i>Parha</i> > Πέρρη, <i>Pargalla</i> , <i>Pyrgi</i> , Πέργαμον (TN) <sup>67</sup>
14. <i>pa-ya-ta</i> <i>pa-i-to</i>	LA KN Zf 13 LB KN Da 1156+; etc	TNs in <i>-st-</i>
15. <i>sà-ḥur-wa<sub>9</sub></i> <sup>68</sup> <i>sa<sub>3</sub>-ḥár-wa<sub>10</sub></i>	CH # 271, 2 CH # 333, A28; 31	<i>Sahur-</i> , <i>Sakara-</i> , or <i>Sakur-</i> (= <i>Sagūru</i> ,

<sup>63</sup> Lycian TL 125b; cf. Melchert 1993b, s.v.; identification of the Linear B form included in Billigmeier 1970; to be analyzed as a compound of Luwian *ara-* “eagle” with a diminutive suffix *-ku-* or *-ko-*, the latter of which is also traceable in *ti-ti-ku* < *Titis*, see below.

<sup>64</sup> Cf. the Old Indo-European onomastic element *eburo-* as attested for the Lower Rhine region, Liguria, and Lusitania, see Woudhuizen 2016: 76-77, note 72.

<sup>65</sup> Refers to Gortyns in the Mesara as per Hiller 1996: 81-82, elaborating an earlier suggestion by Doria 1959: 22 as referred to by Heubeck 1961: 59, note 6. This TN shows a reflex of PIE \**g<sup>h</sup>ord<sup>h</sup>*- “city, town” and for the preservation of the initial voiced velar belongs to an Old Indo-European substrate which in the western Anatolian Luwian context and the Cretan Luwian context can positively be identified as Pelasgian.

<sup>66</sup> Identified with the *Pyrgiotissa* along the northwestern coast of the Mesara, see Woudhuizen 1992a: 44, note 98.

<sup>67</sup> Note that this related group of TNs shows various reflexes of the PIE root \**b<sup>h</sup>ǵ<sup>h</sup>(i)*- “high”. Because of the preservation of the voiced velar, these TNs are likely to be attributed to an Old Indo-European substrate, which in the western Anatolian Luwian context and the Cretan Luwian context can positively be identified as Pelasgian. Note furthermore that this ethnonym refers to dwellers of heights in a comparable way as in case of Celtic *Brigantes*.

<sup>68</sup> Identified with Homeric Σχερία, the town of the seafaring Phaiakians, by Best in Best & Woudhuizen 1989: 69, and, for its location at the west coast of the Mesara, likely to be considered the ancient name of modern Hagia Triada, see Woudhuizen 1992a: 32-33; 42-47. Note that the writing of the root *Sahur-* in TN *Sahurwa* on the CH seal # 271, 2 from Malia dated to the Middle Bronze Age by means of the counterpart signs of Luwian hieroglyphic \*104 *sà* and \*451 *hur* appears to be traditional in view of the fact that it is exactly paralleled for the MN *Sahurnuwas* based on this very same root as attested for the Luwian hieroglyphic legend of seals of one of the Hittite kings of Karkamis reigning sometime during the 13th century

NAME	ATTESTATION	PARALLEL
<i>sa-ka-ri-jo</i>	LB KN V 1523	a tributary of the
<i>sa-qa-re-jo</i>	LB KN DI 412; etc.	Euphrates);
<i>(o-pi-)ke-ri-jo-</i>	LB PY An 724.3 <sup>69</sup>	<i>Sahiriya-</i> “Sangarios” (river name)
16. <i>ru-ki-to</i>	LB KN Da 1288; etc.	<i>Lukka</i> “Lycians” <sup>70</sup>
16. <i>lu-ka</i>	LA Monte Morrone <sup>71</sup>	<i>Lukka</i> “Lycian”

#### IVa. Phrygian

1. <i>a-ta-na(-po-ti-ni-ja)</i>	LB KN V 52	ἄττα “daddy” > <i>Attas</i> or Ἄττις (GN)
2. <i>ka-nu-ti</i>	LA HT 97a.3	<i>Kanuties</i>
3. <i>mo-qa-so</i>	LB KN De 1381	<i>Mukšaš</i>
4. <i>ke-ra-no</i>	LB KN Ch 896	Κελαιναί (TN)
5. <i>du-ma</i>	LB KN C 1030; C 1039	<i>duma-</i> “religious community”

BC. In Luwian hieroglyphic inscriptions from Karkamis dated to the Early Iron Age, the [h] in the onomastic element in question becomes de-aspirated to [k] as the MN *Sakara-* and the reference to a tributary of the river Euphrates in form of *Sakur-* may exemplify, see Woudhuizen 2015a: 289 and cf. Rosenkranz 1966: 135; Best & Woudhuizen 1989: 117, note 91. All these names are rooted in Old Indo-European river names based on PIE *\*seik<sup>w</sup>*- “to seep, soak” (Pokorny 1959: 893) to which also the related Gaulish *Sequana* belongs.

<sup>69</sup> Reference to the Cretan region of Skheria along the western coast of the Mesara as per Best 1996-7 [= Best 2011]: 122 (for the prefix *o-pi-*, cf. *o-pi-a<sub>2</sub>-ra /opihala/* “coastal regions” from PY An 657.1, related to Homeric ἔφαλος).

<sup>70</sup> Cf. Hittite *Lukkataš*, see Schachermeyr 1962: 37; del Monte & Tischler 1978, s.v. (associated with *Tuwanuwa* “Tyana”); for the identification of *ru-ki-to* “Lyktos” with later Malia on account of its mention in form of *ry-k<sub>3</sub>-ti* in the itinerary of Aegean place-names from the temple tomb of Amenhotep III at Kom el-Hetan in between Amnisos and Sitia—*i.e.* exactly where one would expect the mention of the ancient name of Malia—, see Woudhuizen 2006b: 82; cf. Cline 1987: 26-29, Table 2; Edel & Görg 2005: Falttafel 2. The root of this TN is probably to be traced back to PIE *\*(e)ug<sup>h</sup>*- “to bind”, see Woudhuizen 2016: 83; 86, in which case the preservation of the voiced velar indicates its attribution to an Old Indo-European substrate. Note that the ethnonym *Lukka* is written with the star-sign *\*186/445 lu* as acrophonically derived from PIE *\*luk-* in Luwian hieroglyphic texts from the Late Bronze Age (Yalbur §§ 4-5, Südburg §§ 1, 4; cf. Woudhuizen 2011a: 401 on Luwian hieroglyphic and Indo-European), but this might well be the result of secondary popular etymological considerations.

<sup>71</sup> See section II.7 above.

NAME	ATTESTATION	PARALLEL
6. <i>da-wo</i> <sup>72</sup>	LB KN Ak 621; etc.	<i>davo-</i> “god”
<b>IVb. Thracian</b>		
7. <i>pi-ta-ka-se</i>	LA HT 21a.1	<i>Pittakas</i> <sup>73</sup>
<i>pi-ta-ke-si</i>	LA HT 87.2	<i>Pittakēs</i>
8. <i>qo-wa-ke-se-u</i>	LB KN As 602	<i>Goakseus</i> <sup>74</sup>
9. <i>a-re</i>	LB KN Fp 14	Ἄρης (GN) <sup>75</sup>
<i>a-re-i-jo</i>	LB KN Le 641	Ἄρειος
10. <i>pa-ja-wo-ne</i> (D sg.)	LB KN V 52	Παίονες (ethnonym)
<b>IVc. Kaskan</b>		
11. <i>pí-ta<sub>5</sub>-PÁRA</i>	CH # 255, 2; # 300, 1	<i>Pittaparas</i> <sup>76</sup>
<b>V. Greek</b>		
1. <i>a-té-na</i>	CH # 293, 1; 303, 1; # 037a; # 050a	Ἀθηναῖος <sup>77</sup>
2. <i>ni-sa-ta</i>	CH # 295, 2	Νέστωρ <sup>78</sup>
<i>ná-sa<sub>2</sub>-ta</i> , etc.	CH # 333, A3; etc.	
3. <i>i-du-ma<sub>1</sub>-na</i>	CH # 333, B9	Ἰδομενεύς
4. <i>hì-à-wa<sub>9</sub></i>	CH # 246, 2	Ἀχάϊα (country
<i>hí-ya-wa</i>	CH # 293, 3	name) <sup>79</sup>

<sup>72</sup> For the identification of this TN as a reference to the main sanctuary at Hagia Triada in like manner as Linear B *da-pu<sub>2</sub>-ri-to-jo* refers to the main sanctuary at Knossos, see Woudhuizen 1992a: 42-47 and section IV.1 below.

<sup>73</sup> Best 1972: 34; Best 1989: 137.

<sup>74</sup> Best 1989: 137.

<sup>75</sup> For this and the next identification, cf. Detschew 1976, s.v. Ἀρει- and Ἄρεός; Παίονες.

<sup>76</sup> Woudhuizen 2006b: 81, with reference to von Schuler 1965: Indices, 2. Personen-namen, s.v.

<sup>77</sup> Note that this personal name, considering its correspondence to Phrygian *Atanies*, see Waanders & Woudhuizen 2008-9: 183; 195-196, may well be attributed to the pre-Greek Thracio-Phrygian population groups inhabiting mainland Greece from c. 2300 BC onwards.

<sup>78</sup> Woudhuizen 2004-5: 179-183; for the evidence from the text of the Phaistos disk, which also regards the next identification, see Best & Woudhuizen 1988: 50-51, and most recently and comprehensively Achterberg e.a. 2004: 98.

<sup>79</sup> Achterberg e.a. 2004: 110, esp. note 449, with reference to the Luwian hieroglyphic text from Çineköy as published by Tekoğlu & Lemaire 2000 (included in

NAME	ATTESTATION	PARALLEL
<i>ḥi-ya-wa<sub>8</sub></i> <i>a-ka-wi-ja-</i>	CH # 333, A5 LB KN C 914	
5. <i>e-ra-po ri-me-ne</i>	LB PY An 657.12	“at Stags’ Harbor” (translation of Semitic <i>Ayalu</i> ) <sup>80</sup>
<b>VI. Egyptian</b>		
1. <i>nū-da</i>	LA KO Za 1	<i>Nwt</i> (GN) <sup>81</sup>
2. <i>ma<sub>6</sub>-ni-le</i>	CH # 312, 1	<i>Men-ḥpr-r</i> <sup>82</sup>
3. <i>mi<sub>1</sub>-SARU</i> <i>mi-sa-ra-jo</i>	CH # 333, A1; etc. LB KN F 841	<i>Misr</i> “Egypt” <sup>83</sup> (country name)
4. <i>a<sub>3</sub>-ku-pi-ti-jo</i>	LB KN Db 1105	Αἰγύπτιος, cf. Ug. <i>Ḥkpt</i> < Eg. <i>Ḥwt-k3-</i> <i>Pth</i> “Soul-house of the god Ptah (= Memphis)” <sup>84</sup>
<b>VII. Khurritic</b>		
1. <i>Na-su-ya</i> ( <i>n3swy</i> )	Eg. Keftiu names	<i>Nušaya</i> <sup>85</sup>
2. <i>da-ku-se-ne-</i>	LA HT 104.1-2	<i>Taku-šenni</i> <sup>86</sup>

Woudhuizen 2015a) for the typical Luwian form of this geographic name, characterized by aphaeresis. Note that this form is now also recorded for Ugaritic texts from the latest stage of the Late Bronze Age, see Singer 2006: 250-251; 257-258, note 70. Note that the origin of the ethnic *Akhaians* can be traced back to the pre-Greek population groups of mainland Greece, see Woudhuizen 2013b: 8-10.

<sup>80</sup> Best 1996-7 [= Best 2011]: 123.

<sup>81</sup> See section II.3 above.

<sup>82</sup> Ranke 1935, s.v. *mn-ḥpr-r* ʿ.

<sup>83</sup> Best & Woudhuizen 1988: 50-51; most recently and comprehensively Achterberg e.a. 2004: 104; Landau 1958: 270. Cf. Luwian hieroglyphic *Mizra* “Egypt” (Karkamis A6, § 4), see Woudhuizen 2015a: 280 and the composite personal name *Mizramuwas*, see Herbordt 2005: 81 f.; 156-158 (Kat. nos. 242-9); note that the polyphonic sign L 377 *i, za* in these instances renders its less current sibilant value.

<sup>84</sup> Cf. Haider 1988: 212-213, note 244.

<sup>85</sup> Albright 1934: 21; cf. Astour 1964: 249, with reference to Nuzi *Na-šu-i* (Gelb, Purves & MacRae 1943: 104) and Alalakh *Na-še-ia*; see also Gelb, Purves & MacRae 1943: 241, List of Elements Other than Akkadian and Sumerian, s.v. *nuš*.

<sup>86</sup> Best & Woudhuizen 1988: 115, note 33; cf. Wegner 2000; the second element consists of *šena*- “brother”.

NAME	ATTESTATION	PARALLEL
3. <i>ti-ti-ku-ni</i>	LA HT 96a.1	<i>Titikuni</i> <sup>87</sup>
4. <i>su-ki-ri-te-i-ja</i>	LA HT Zb 158b	<i>Sukriteja</i> <sup>88</sup>
5. <i>e-ri(-ta-qi-jo)</i> <i>e-ri(-sa-ta)</i>	LB KN As 604 LB KN Nc 4474	<i>ar-</i> “to give” <sup>89</sup>

## VIII. Unclear

2. <i>nú-sa</i> “child, son” <i>di-wo-nu-so</i>	CH # 056a <sup>90</sup> LB KH Gq 5 <sup>92</sup>	Nύσος (MN), <sup>91</sup> <i>Nzeo</i> (GN [D sg.]), <sup>93</sup> Νύσα (TN)
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<sup>87</sup> Best 1972: 33.

<sup>88</sup> Hypercoristicon of *Sukri-Tešub*, cf. Gelb, Purves & MacRae 1943 193; 265.

<sup>89</sup> Wegner 2000; cf. *Ari-Tešup* “Teshup has given” (type of Luwian *Armapiya-*, Lycian *Natrbijēmi-* [with a reflex of Egyptian *ntr* “god” as first element, see Carruba 2002] and Greek Ἀπολλόδορος or Ἀπολλόδοτος). Not to be mixed-up with Greek *eri-* (LB *e-ri-*) as in Ἐριχθόνιος, etc.

<sup>90</sup> Woudhuizen 1992b: 198 (local, i.e. Knossian, dialectal translation of *pí-ni* < Semitic *ben* “son” in a count of livestock or people in which the immature are distinguished from the regular or mature examples, cf. the analogous use of LB *ko-wo* “boy, son” or *ko-wa* “girl, daughter”). Note in this connection that Dionysos, the son of Zeus, is also addressed in Hellenized variant as Διό-παις, and that the second element *-nusos* is explained by Szemerényi 1974: 145 as a reflex of PIE *\*sūnus* “son” characterized by metathesis.

<sup>91</sup> Male counterpart of Νύσα, nanny of Dionysos; Cf. Νῆσος, a mythical king of Megara, the harbor of which is called Νίσαα, see Pauly-Wissowa Realencyclopädie, s.v.

<sup>92</sup> Hallager, Vlasakis & Hallager 1992: 70.

<sup>93</sup> Recipient deity in a Carian dedicatory inscription on a cratera from Iasos (C.Ia 3), cf. Adiego 2007: 147-148.

CHAPTER IV:

LINEAR B



#### IV.1 THE GEOGRAPHY OF CENTRAL CRETE ACCORDING TO THE LINEAR B ADMINISTRATION AT KNOSSOS\*

The aim of the present section is much more modest than its title pretends. It does not aim at settling the discussion of the geography of central Crete in its entirety, but only tries to determine whether information provided by the Knossos tablets (see Killen & Olivier 1989) about the place-names mentioned in the text on the discus of Phaistos is compatible with the geographical indications emanating from the latter text. This particular task has the additional advantage that it is a workable one in the present state of the evidence.

According to the most profound study on place-names recorded in the Knossos administration, namely, there is one especially close knit group of associated place-names which singles itself out for the excessive high frequency of occurrence of its members in the texts. This group, which is labeled Group I by the author of the contribution, A.L. Wilson, contains as much as four TNs which make up the top four of most frequently mentioned place-names, viz. *ku-ta-to* with 64 definite occurrences, *pa-i-to* and *da-\*22-to* with each 48 occurrences, and *da-wo* with 42 definite occurrences.<sup>1</sup> How closely knit these four TNs are, emerges from the analysis of direct association between place-names on one and the same tablet. So *pa-i-to* appears as much as four times in direct association with *da-wo*, the latter occurs twice in direct association with *ku-ta-to*, and this place-name in turn is also twice directly associated with *da-\*22-to*.<sup>2</sup> Now, as one of these four TNs, *pa-i-to*, has received an uncontested identification with Phaistos in the Mesara plain, scholars in Mycenaeanology are quite receptive to the idea that the entire group could be located in the same region or its immediate surroundings. One scholar, John Bennet, even went as far as to draw the conclusion from the fact that Group I TNs have over 30% of the total of TN occurrences in the entire archive, that the palace of Knossos has a high level of administrative interest in the general area of the Mesara plain!<sup>3</sup> This situation, of course, is not at all contradicted by the one encountered in the text on the discus of Phaistos, according to which Idomeneus, king of Knossos according

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\* This section corresponds to Woudhuizen 1992a: 42-47.

<sup>1</sup> Wilson 1977: 67-125, esp. Table VII.

<sup>2</sup> Wilson 1977: 87, Table III, *sub* type (1) associations.

<sup>3</sup> Bennet 1985: 239.

to Homeros, is great intendant of the Mesara and the immediate superior of the kings of Phaistos and *u-pa* Phaistos in this region.

A suggestion as to the location of yet another member of the Group I TNs has been put forward by the Mycenologist Stefan Hiller. This Austrian scholar took the extreme high ratios delivered by the township *da-wo* to the palace of Knossos (e.g. Dn 1094 registering a delivery of 2.440 sheep) according to the epigraphical record as his starting point and related this observation to the archaeological fact that, apart from Knossos, there is only one place in Crete with a duly attested bureaucratic administrative system of its own, namely Hagia Triada (modern name) in the Mesara plain, of which the excavations yielded some 150 tablets in Linear A.<sup>4</sup> The resulting proposition to identify Linear B *da-wo* with modern Hagia Triada is not only extremely tempting for the fact that the contemporaneity of the corpus of Linear A texts with at least part of the Linear B archives from the palace of Knossos is convincingly demonstrated by the decipherer of the script first mentioned, Jan Best, on the basis of a clearly detectable process of mutual influence between the two types of records.<sup>5</sup> It also seems to recommend itself in the light of indications emerging from the Linear B evidence alone. As soon as we are willing to take *da-wo* into consideration as a local administrative centre, it strikes us that this TN is twice as often directly associated with Phaistos as with *ku-ta-to*, whereas only the last mentioned place-name in its turn is directly associated with *da-\*22-to*. Is it allowed to transpose these phenomena into terms of geography and infer that *da-wo* is closer to Phaistos than *ku-ta-to* and that the last mentioned place-name in turn is situated in between Phaistos and *da-\*22-to*? If so, the identification of *ku-ta-to* as a more ancient form of the place-name *Gortyn* or *Gortys*, which is generally connected with typical Pelasgian TNs like *Gyrton* in Thessaly, *Gordion* in Anatolia, *Cortona* in Italy, etc., and traced back, like IE Anatolian *gurta-* “town”, to the PIE root *\*g<sup>h</sup>ord<sup>h</sup>*- “city, town”, becomes attractive, especially since the location of this town along the communication route between the Mesara plain and the palace of Knossos splendidly explains its being number one in the list of most frequently occurring TNs in the Knossos tablets.<sup>6</sup> Accordingly, the relative sequence *da-wo* = *pa-i-t o* = *ku-ta-to* = *da-\*22-to* perfectly matches the actual sequence of municipalities in the Mesara plain,

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<sup>4</sup> Hiller 1976: 108 ff.

<sup>5</sup> Best 1981b: 41 ff.

<sup>6</sup> Eisler 1939: 449; Sakellariou 1977: 137.

running from Hagia Triada in the west via Phaistos and Gortyn to the Diktè region in the east, and the equation of *da-wo* with Hagia Triada appears to receive substantial support.<sup>7</sup>

Again, it seems that also in this respect the situation in the Knossos tablets is reflected in the text on the discus of Phaistos, as both categories of documents have in common that the Mesara plain is divided into four distinct administrative sections. But it must be admitted that in this particular instance the reflection is rather dim, as there is only one identical place-name in both sequences, namely Phaistos. For the rest, *u-pa* Phaistos in the text on the discus may, of course, plausibly be taken for a circumscription of the TN *ku-ta-to* in the Linear B texts from Knossos, and even Rhytion may, in a more general sense, be assumed to correspond to *da-\*22-to* as it lies in the area closest to the Diktè mountain range. The real bottleneck in the argument, however, is formed by the double identification of modern Hagia Triada with *da-wo* from the Knossos tablets on the one hand and Skheria from the text of the discus on the other hand. This inference seems to run up against serious objections in the form of the fact that the name Skheria itself, be it in ethnic derivation, turns up in the Linear B administration at Knossos as a separate entity, clearly distinct from *da-wo*, viz. *sa-ka-ri-jo* or *sa-qa-re-jo*. Although the location of this TN in the general area of the Mesara plain or immediately surrounding regions can definitely be established on the basis of its direct association with *pa<sub>3</sub>-ko-we* in DI 794 and DI 7141, because the latter TN in turn is directly associated with *da-\*22-to* (Dn 1093) on the one hand and *ku-ta-to* (G 820) on the other hand, its equation with *da-wo* is seriously hampered by the observation that *da-wo* for its high frequency belongs to the group of TNs in which the Knossos administration showed a capital interest, whereas the graphic variants of the ethnic derivation of Skheria for their low frequency belong to a group of TNs in which the Knossos administration showed only a marginal interest.<sup>8</sup> In other words: according to the evidence of the Linear B archive at Knossos we are dealing here with two altogether separate entities.

<sup>7</sup> The suggestion to interpret *da-\*22-to* as “Diktè” is based upon the observation that \*22 so closely resembles \*21 *qi* that it may safely be taken for a stylized variant of the latter sign. Note, however, that the same geographic name already occurs as *di-ka-ta-* in the Knossos tablets.

<sup>8</sup> Considering the fact that *Pergamon* and *Pyrgi* are Pelasgian TNs based upon one and the same root, PIE *\*b<sup>h</sup><sub>1</sub>ǵ<sup>h</sup>(i)-* “high”, *pa<sub>3</sub>-ko-we* may well be considered as a TN bearing reference to, or being linguistically related with, the *Pyrgiotissa*, i.e. the western coastal area of the Mesara plain as it is called up to the present day.

Just like in case of the identification of the sender of the letter on the discus of Phaistos, however, paradox seems to be the father of hope. The fact, namely, that Skheria belongs to an administrative category different from Phaistos, Gortyn and the Diktè region (leaving aside the question of Hagia Triada for a moment) in the Knossos tablets strongly reminds us of the grouping of Skheria with Knossos in the Lasithi province on the front side of the discus, whereas all other places situated in the Mesara plain, viz. Phaistos, *u-pa* Phaistos and Rhytion, are grouped together as a separate entity in the text on the back side. Against the background of the Linear B evidence, then, the conclusion seems to be that the absence of any other personal name than the one of the Akhaian sovereign Nestor in the text on the front side of the discus actually means that *Skheria in the Mesara and Knossos in the Lasithi make up a separate administrative category which falls directly under the authority of Nestor himself*. Consequently, these towns may be assumed to be direct tributaries to the palace of Nestor at Pylos and the records of transactions involved, at least as far as Skheria is concerned, may be assumed to fall outside the scope of administrative interests of the palace at Knossos (see Fig. 45).

Although most Mycenologists are unwilling to admit it, there is ample evidence in the Knossos tablets for relations of Crete with mainland Greece, but in the present context the mention of *sa-pa-kate-ri-ja* "Sphakteria" (C 941) and *ri-jo* "Rhion" (30 definite occurrences in various texts) from the Pylian kingdom in the southwest Peloponnesos may suffice to underline the validity of our present argument.<sup>9</sup> As far as the same tablets offer us any information about the geographical name with which the ethnic of Skheria is associated, *pa<sub>3</sub>-ko-we*, it appears that this locality or region maintained trade relations with the Levantine coast in the Near East as deducible from its direct association with *ki-nu-qa* "Canaan"<sup>10</sup> (cf. Akkadian cunei-

<sup>9</sup> TNs from the Knossos tablets with a reference to localities on the Greek mainland is a subject easy to dwell upon. Suffice it to draw attention here to, for example, *a-ka-wi-ja-de* "to Akhaia (definitely the Greek mainland at the time, and not the region in Crete mentioned in sources of much later date)", *ra-ma-na-de* "to Rhamnous (in Attica)", *o-du-ru-wi-jo* "the Odrysian (ethnic of the Thracian tribe inhabiting the hinterland of Thebes in Boeotia during the earlier part of the Late Bronze Age)". Very interesting in this connection is also Db 1232, recording the ethnic *na-pu-ti-jo* "the Nauplian" in direct association with a "collector" (*pe-ri-qo-te-jo* [D]) at *ti-ri-to* "Tiryns"!

<sup>10</sup> Ap 618+623+633+5533+5922 and Ga 424, respectively. For the Akkadian form, see for example Astour 1965: Index, s.v. *Kinaḫna*.

form *Kinahhi* and Cyprian Linear D *ki-nu-ki*)<sup>11</sup> and *po-ni-ki-jo* “Phoenician”.

But what primarily concerns us here is to develop a solution to the problematic identification of the site at modern Hagia Triada with *da-wo* from the category of TNs in which the Knossos administration had a direct interest on the one hand and with Skheria from the category of TNs in which the Knossos administration had only a marginal interest on the other hand. This “mission impossible” may perhaps be accomplished according to the line of approach which makes a distinction between the *civil quarters* of a town and its *sanctuary*. The latter institution often functions as an *asylum* in Antiquity, a place where international trade is concentrated in periods of political instability for the religious protection it offers to its attendants. Along this line of approach, then, *da-wo* refers to the main *sanctuary* of Asherah and Tinita at Hagia Triada, which, as we have already noted, is in fact a local administrative centre probably facilitating relations with the central palace at Knossos, whereas Skheria refers to the adjoining *settlement* with the much smaller temple of Haddu and its harbor facilities for international trade and shipping. An analogous case to underline the *a priori* possibility of such a distinction is easily found in the distinction between the town *Knossos* (*ko-no-so*) and its main sanctuary, the *Laburinth* (*da-pu<sub>2</sub>-ri-to*), in the Knossos tablets themselves (note that the Athenian tribute of seven boys and seven girls according to Greek literary tradition is sent to the Labyrinth!). An additional advantage for the Pylian king Nestor offered by the present model is that his direct control over the town Skheria guaranteed him a check, in so far as the route overseas is concerned, on the revenues of his subordinate, king Idomeneus of Knossos, from the latter’s dependencies in the hinterland of Hagia Triada! Or, to put it in the terminology of the text on the discus of Phaistos: “*To you Haddu brings “life”*”.

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<sup>11</sup> Tablet inv. 1687, line 4, see Woudhuizen 2016: 200.

## IV.2 THE KNOSSOS PROBLEM: BACK TO THE UNITY OF THE ARCHIVES\*

### 1. INTRODUCTION

In the beginning of the previous century, the excavator of the palace of Knossos, Arthur Evans, had little doubt that the Linear B tablets he unearthed so lavishly on the site belonged to the destruction level of the palace at the end of Late Minoan II, *c.* 1400 BC. As a consequence, the Linear B tablets found later in the same century by Carl Blegen in the destruction layer of the palace of Pylos at the end of Late Helladic IIIB, *c.* 1200 BC, were about two centuries younger in date than their Knossian counterparts. This gap of about two centuries between the Knossos and the Pylos tablets has bothered linguists ever since the decipherment of the script by Michael Ventris in 1952, because they could not trace any differences in style between the two sets and therefore had to assume that the tradition of writing in Linear B remained remarkably stable during the course of time. Driven by his skepticism about the validity of such an assumption, the linguist Leonard Palmer (1965) set out to scrutinize Evans' archaeological foundations for a Late Minoan II date of the Knossos tablets, in which undertaking he even worked his way through the notebooks by Evans' deputy Duncan Mackenzie, in order to reach the conclusion that Evans' dating of the tablets was entirely false and that the destruction of the palace of Knossos had not taken place at the end of Late Minoan II but two centuries later, at the end of Late Minoan IIIB. As a result of this conclusion, the assumed gap in time between the Knossos and Pylos tablets turned out to be illusory and their stylistic coherence to be a mere reflection of the fact that the archives in question were synchronic.

The effect of Palmer's vigorous attack on the validity of the dating of the Knossos tablets by Evans was that almost nobody dared to tackle the topic again and that, although a Late Minoan II dating was usually maintained by specialists and in the handbooks, one did so while conspicuously avoiding to go into the details of the matter.

Nevertheless, some archaeologists were bold enough to put their reputation at risk and tackle the subject. Among these, mention should be made of Mervyn Popham (1970: 85), who, while mainly

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\* This section is a slightly adapted version of Woudhuizen 2009: section III.1 (pp. 169-184).

working in the frame set out by Evans, finetuned the latter's dating of the destruction of the palace of Knossos which to his findings did not occur at the end of Late Minoan II but sometime during Late Minoan IIIA1 if not at the very beginning of Late Minoan IIIA2, a period dated by him to between *c.* 1400 BC and *c.* 1375 BC in terms of absolute chronology. Note, however, that in the mean time the basis of Minoan absolute chronology, the Egyptian king list, has been subject to a minor correction (Kitchen 1996) and that as a result of this the end of Late Minoan IIIA1 should likewise be lowered to *c.* 1350 BC. As opposed to this, others have rather tried to come to grips with the problem by distinguishing not just one destruction layer, but various ones. Thus Jan Driessen (1990) argued at length that the archive of the Room of the Chariot Tablets (RCT) takes a special position and has come down to us thanks to a minor destruction at the end of Late Minoan II unconnected with that of the palace as a whole at the end of Late Minoan IIIA1. Note, however, that the validity of this view is seriously undermined by Gareth Owens' (1994-5: 31) observation that three of the sealings from this particular archive are definitely Late Minoan IIIA1 in style, so that the distinction between the RCT destruction and that of the palace as a whole in effect becomes almost negligible. In similar vein, Jean-Pierre Olivier (1994: 170) drew attention to the fact that one of the Linear B tablets from Khania which came to light during the excavations by Erik Hallager *e.a.* (Hallager, Vlasakis & Hallager 1992) and are dated by the latter to the end of Late Minoan IIIB1, *c.* 1250 BC, bears testimony of the hand of a Knossian scribe, known as scribe 115, who in the Knossos archives was responsible for, amongst others, the recording of transactions with *ku-do-ni-ja* "Kydonia" (KN Lc 481 and 7377), the ancient name of Khania!<sup>1</sup> On the basis of this fact, he concluded that the activities of scribe 115, and with him several others working in the same Knossian archives, together responsible for some 1.000 tablets, must be assigned to Late Minoan IIIB1, and that the destruction of the archives involved must have taken place at the end of this period. Finally, it deserves our attention in this connection that the excavator of Khania, Erik Hallager, dedicated a study to the problem (1977), which induced him to side with Palmer and to maintain that the destruction of the palace of Knossos took place during Late Minoan IIIB.

Against this background, it should not really surprise us that one of the partakers into the discussion, Jan Driessen, lately (1997) rath-

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<sup>1</sup> So also Olivier 1993: 19-33, but withdrawn in Olivier 1996: 823.

er desperately phrased the question: how many destructions? Should we reckon with destructions at the end of Late Minoan II, Late Minoan IIIA1, Late Minoan IIIB1, and Late Minoan IIIB2, i.e. all together at 4 different periods in time?

It is clear to everyone participating in the discussion that the palace of Knossos in its long history, and particularly that of the Late Bronze Age, had been subject to more than one destruction. It also seems clear that the tradition in writing Linear B, introduced from the mainland during Late Minoan II, was continued in various locations in the island, amongst which most probably the palace of Knossos, up till the end of the Bronze Age (see Farnoux & Driessen 1991 for painted inscriptions on vases from Malia assigned to the beginning of Late Minoan IIIB, but, as convincingly shown by Best 1996-7, evidencing names of persons featuring in the Pylos archives from the end of Late Helladic IIIB). The question, however, is: which of the various Knossian archives can be dated to which of the various Knossian destruction layers? In the following, then, this question will be addressed by exploring what the indigenous Cretan scripts, Linear A and Cretan hieroglyphic, can contribute to an answer—a corner of incidence so far fully neglected.

## 2. CORRESPONDENCES BETWEEN PERSONAL NAMES IN LINEAR A AND LINEAR B OF KNOSSOS

Our starting point in this exercise is formed by the observation that no Linear A inscription up to now has been surfaced in a clear archaeological context postdating the end of Late Minoan IIIA1, c. 1350 BC. For a summary of the latest datable Linear A inscriptions, we may cite Ilse Schoep in her contribution on a Linear A inscription from Palaikastro from 1998, p. 268:

“If the date of the vessel and the type of script are correctly identified, [PK] Zb 24 adds to the list of signs for limited Linear A literacy during the LM II-III A period on Crete (Kephala tholos and vase from the Unexplored Mansion at Knossos, figurines from Poros).”

This summary of the state of affairs ties in with Jean-Pierre Olivier’s (1994: 169) assignment of the latest datable Linear A inscriptions known to him at the time of his publication to Late Minoan IIIA1 (Poros, Knossos as per Vandenabeele 1985; note that the Linear A

inscription from Drama in Thrace, where it is found in a Late Hellenistic III B/C layer, likely belongs, as acknowledged by its editors, Alexander Fol & Rüdiger Schmitt [2000: 61], to an earlier period).

Given the fact that the Linear A scribal tradition demonstrably continued into Late Minoan IIIA1, it has to be investigated whether interactions between Linear A and Linear B documents, the latter being datable, as we have seen, from Late Minoan II onwards, do exist or not. As a matter of fact, one of the foremost specialists in Linear A, Jan Best, has argued since 1981 that the Linear A archives from Hagia Triada, usually assigned to the end of Late Minoan IB, are in fact contemporaneous with (some of) those of Knossos (Best 1981b: 41-45)! Most recently, he has backed his case with the observation that some of the persons figuring in the Hagia Triada corpus are actually traceable in the Knossos tablets as well, like *ma-di* and *qa-qa-rū* or *qa-qa-ro* (Best 2004: 30-31). As so often the case with the work of Best, it actually turns out at a closer study of the evidence that he is just highlighting the tip of the iceberg. In the following overview I present a full list of personal names featuring in the Linear A archives of Hagia Triada and Phaistos as well as tablets and a vase inscription from Zakro which may reasonably be argued to appear in Linear B tablets from Knossos and Khania and vase inscriptions from Khania and Thebes as well. From this list I have purposely excluded names of a toponymic or ethnic background, because such names may reoccur in the course of centuries and as such not be specific enough for an individual.

MN	attestation
<i>qa-qa-rū</i>	HT 93a.4/5; 111a.2; 118.2/3; 122b.3/4
<i>qa-qa-ro</i>	KN As 604
<i>qa-TALENTUM</i>	HT 44b.1; 131.2/3 KH 10
<i>qi-qe-rolki-ke-ro</i>	KN As 1517; As 1519
<i>qi-TALENTUM</i>	ZA 5a,1; 14,1 <sup>2</sup>
<i>ma-di</i>	HT 3.7; 69.2; 85b.5; 97a.4; 118.1 PH 31 KN As 603; Db 1168+7168

<sup>2</sup> Cf. Best 1981b: 13 for the phonetic reading of TALENTUM as *qar* and notes 23 and 24 on the given forms of the name with TALENTUM.

MN	attestation
<i>ma-di-jo</i>	KH Z 3 <sup>3</sup>
<i>ku-pa<sub>3</sub>-nu</i>	HT 1a.3; 3.6; 47a.6/7; 88.3; 4; 117a.3; 122a.6; 7 PH 31
<i>ka-pa<sub>3</sub>-no</i>	KN Df 1219
<i>ku-pa<sub>3</sub>-ni</i>	TH Z 844; 848; 881; 971 <sup>4</sup>
<i>a-we-su</i>	HT 118.3 PH 28
<i>ku-pa<sub>3</sub>-na-tu</i>	HT 47a.1/2; 119.3
<i>ka-pa<sub>3</sub>-na-to</i>	KN As 1516
<i>a-ra-na-re</i>	HT 1a.4
<i>a-ra-na-ro</i>	KN As 1516
<i>ku-ku-da-ra</i>	HT 117a.7
<i>ku-ka-da-ro</i>	KN Uf 836
<i>ki-da-lū</i>	HT 117a.9
<i>ki-da-ro</i>	KN X 7557
<i>ka-rū</i>	HT 97a.1
<i>ka-ro</i>	KN Fh 340
<i>di-re-di-na</i>	HT 98a.2/3
<i>di-ra-di-na</i>	PH 1
<i>a-se</i>	HT 93a.3; 132.1 ZA Zb 3
<i>ti-ti-ku</i>	HT 35.1 ZA Zb 3

Table XVIII: Overview of recurrent MNs in Linear A and B.

<sup>3</sup> Sacconi 1974: 180; according to Hallager 1975: 66 and 73 on a stopper for a stirrup jar.

<sup>4</sup> Legend on stirrup jars with painted inscription; reading of the latter one according to Raison 1968: 115-117.

At this point one may legitimately wonder whether we are dealing here with specific individuals or with different persons bearing the same name. Now, the case for the first option is particularly strong for names recurring in one and the same archive, like *ku-pa<sub>3</sub>-nu*, *ma-di*, and *qa-qa-rū* occurring as much as 8, 5, and 4 times, respectively, in the Hagia Triada tablets. It virtually becomes certainty, however, if we realize that these recurrent names in one and the same archive co-occur with each other on one and the same tablet, as shown in the overview below. From these co-occurrences it may reasonably be argued that *qa-qa-rū*, *ma-di*, and *ku-pa<sub>3</sub>-nu* are in fact real individuals, featuring in our sources as “big linkers”, who in their turn are associated with other individuals (*ku-ku-da-ra*, *ki-da-lū*, and *a-ra-na-re*) aptly to be designated as “linkers”. Considering this close web of relationships, the conclusion that in the case of their Hellenized reoccurrence in the Knossos tablets (*qa-qa-ro* and *ma-di* in the sequential KN As 603 and 604 alongside the co-occurrence of *a-ra-na-ro* with *ka-pa<sub>3</sub>-na-to* in KN As 1516) we are dealing with the same individuals as recorded for the Hagia Triada tablets seems inevitable.

## tablet

1. HT 118	<i>qa-qa-rū</i>	<i>ma-di</i>	<i>a-we-su</i>
2. HT 122	<i>qa-qa-rū</i>		<i>ku-pa<sub>3</sub>-nu</i>
3. HT 3		<i>ma-di</i>	<i>ku-pa<sub>3</sub>-nu</i>
4. PH 31		<i>ma-di</i>	<i>ku-pa<sub>3</sub>-nu</i>
5. KN As 603/4	<i>qa-qa-ro</i>	<i>ma-di</i>	
6. HT 117	<i>ku-ku-da-ra</i>	<i>ki-da-lū</i>	<i>ku-pa<sub>3</sub>-nu</i>
7. HT 1	<i>a-ra-na-re</i>		<i>ku-pa<sub>3</sub>-nu</i>
8. HT 97	<i>ka-rū</i>	<i>ma-di</i>	
9. KN As 1516	<i>a-ra-na-ro</i>		<i>ka-pa<sub>3</sub>-na-to</i>

## vase inscription

10. ZA Zb 3, 1	<i>a-se</i>	<i>ti-ti-ku</i>
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Table XIX: Overview of “big linkers”.

If we are right in our assumption that we are dealing here with specific individuals mentioned in the tablets from Hagia Triada and Phaistos as well as those from Knossos, it evidently follows that the texts in question are indeed synchronous. Under the condition, then, that *qi-QAR* or *qi-qe-ro/ki-ke-ro* and *qa-QAR* are likely to be identified as variant writings of *qa-qa-rū* or *qa-qa-ro*, we arrive at the follow-

ing overview of persons attested in Linear A as well as Linear B texts.

MN	KN	HT	PH	ZA	KH	TH
1. <i>qi-qe-ro/qi-QAR</i> <i>qa-qa-rū/qa-QAR</i>	x x	x (6)		x (2)	x	
2. <i>ma-di</i>	x (2)	x (5)	x		x	
3. <i>ku-pa<sub>3</sub>-nu</i>	x	x (8)	x			x
4. <i>a-we-su</i>		x	x			
5. <i>ku-pa<sub>3</sub>-na-tu</i>	x	x (2)				
6. <i>a-ra-na-re</i>	x	x				
7. <i>ku-ku-da-ra</i>	x	x				
8. <i>ki-da-lū</i>	x	x				
9. <i>ka-rū</i>	x	x				
10. <i>di-re-di-na</i>		x	x			
11. <i>a-se</i>		x (2)		x		
12. <i>ti-ti-ku</i>		x		x		

Table XX. Overview of recurrent MNs differentiated according to site.

It inevitably follows from this overview that, as no Linear A inscription from a secured archaeological context postdates Late Minoan IIIA1, the Knossian archives involved should be assigned to a destruction at the end of Late Minoan IIIA1. Accordingly, it may safely be concluded that the archives F14, in which *qa-qa-ro* and *ma-di* (KN As 603-4, scribe 103) can be found, and J1, in which *ma-di*

(KN Db 1168+7168, scribe 117) and *ka-pa<sub>3</sub>-no* (KN Df 1219, scribe 117)<sup>5</sup> occur, belong to this particular period.

### 3. CORRESPONDENCE OF PERSONAL NAME BETWEEN CRETAN HIEROGLYPHIC AND LINEAR B OF KNOSSOS

Of the indigenous Cretan scripts, not only Linear A can be shown to be continued in use up till the Late Minoan IIIA1 period, the same applies to Cretan hieroglyphic as well. A case in point is the famous discus of Phaistos (# 333), which came to light in association with a Linear A tablet (PH 1) featuring a functionary named *di-ra-di-na* who in form of *di-re-di-na* is also attested for one of the Hagia Triada tablets (i.c. HT 98a.2/3) (Best 2004: 29-31; cf. our overview in the above). As such, therefore, it might be relevant to our cause to point out that the text on the Phaistos disk informs us that the vassal king of Phaistos, who falls under the sway of the great intendant of the Mesara, *i-du-ma<sub>2</sub>-na* “Idomeneus”, a Greek king of Knossos according to Homeros, is called *ku-na-wa<sub>10</sub>* “Gouneus”, which name in variant form *ku-ne-u* also turns up in the Knossos tablets (KN Da 1396, scribe 117; directly associated with *da-wo*, the main sanctuary at Hagia Triada, see section IV.1). If indeed we are confronted here with a mention of one and the same vassal king of Phaistos, it may not be merely coincidental that his attestation originates from the archive J1 in which, as we have noted in the above, also the Hagia Triada functionaries *ma-di* and *ka-pa<sub>3</sub>-no* play a role.

### 4. THE POSITION OF THE MESARA IN CRETAN HIEROGLYPHIC AND LINEAR B OF KNOSSOS

As we have seen in section I.1.4 above, according to the glyptic evidence the Mesara started off as an independent kingdom during the Middle Bronze Age, but became an annex to the kingdom of *Atlunu* “Atlantis” in northeastern Crete during the earlier phase of the Late Bronze Age up to the disastrous Santorini eruption at the end of Late Minoan IB, c. 1450 BC. After this catastrophic event, the former kingdom of *Atlunu* “Atlantis” was replaced by the province of Lasithi, but the dependency of the Mesara on this successor of *Atlunu* “Atlan-

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<sup>5</sup> Associated with the TN *pa<sub>3</sub>-ko-we* “Pyrgiotissa”, situated to the northwest of the Mesara.

tis” was maintained. Now, the latter situation is exactly the one we are confronted with in the text of the Phaistos disk (# 333), which in its enumeration of Cretan territories held in loan by the Akhaian king Nestor starts with the Lasithi and then goes over to the Mesara, in which Phaistos and its hinterland are explicitly stated to be under the sway of the great intendant Idomeneus, a Greek king of Knossos according to Homeros. The relevant Cretan hieroglyphic data on the subordinate position of the Mesara to the northeastern zone of Crete, expressed in case of the seals by its abbreviation *MA* being added to the country names *ta<sub>5</sub>-ru-nú* and *ra-sà+tì*, are the following:

TNs	text no.
<i>ta<sub>5</sub>-ru-nú</i> + <i>MA</i> <sub>1/6</sub>	# 309, # 312
<i>ra-sà+tì</i> + <i>MA</i> <sub>1</sub>	# 283
<i>ra-su-tu</i> , etc. + <i>mi</i> <sub>1</sub> - <i>SARU</i>	# 333, A16, etc.; A30, etc.

Table XXI. Evidence for the Mesara in Cretan hieroglyphic.

If we turn to the Linear B evidence of the Knossos tablets, it so happens that in so far as place-names are concerned the ones from the Mesara make up the top 4 of the frequency analysis of all toponyms mentioned in the entire corpus (see McArthur 1993: 265-6; 270; 269; 266; cf. section IV.1 above):

	TN	incl. ethnic adj.
<i>da-wo</i> (= sanctuary at Hagia Triada)	42x	
<i>pa-i-to</i> “Phaistos”	48x	56x
<i>ku-ta-to</i> “Gortyns (< * <i>Gurtanthos</i> )”	70x	77x
<i>da-*22-to</i> (region of Diktè mountain)	42x	48x

Table XXII. Evidence for the Mesara in the Knossos texts.

Against the backdrop of the relevant Cretan hieroglyphic evidence, then, this predilection of the Knossian Linear B archives with the region of the Mesara is likely to be situated in the Late Minoan II-III A1 period, dated *c.* 1450-1350 BC. At any rate, it is clear that it cannot be dated *before* this period, because the town of Knossos only came in Greek hands *after* the for the realm of *Atlunu* “Atlantis” so disastrous Santorini eruption of *c.* 1450 BC, whereas it is difficult to situate this predilection *after* this period because our

control evidence from the indigenous Cretan scripts is lacking from *c.* 1350 BC onwards! If we are right here, it evidently follows that the number of Linear B archives at Knossos assignable to Late Minoan IIIA1 rises significantly, as shown in the diagram below, the data of which are drawn from Jennifer McArthur 1993: 223.

	C	F14	I3	J1	Total
1. <i>da-wo</i>	3x	3x	3x	19x	28x
2. <i>pa-i-to</i>	1x	1x	2x	26x	30x
3. <i>ku-ta-to</i>	4x		2x	43x	49x
4. <i>da-*22-to</i>	2x	1x	3x	19x	25x
Total	10x	5x	10x	107x	132x

Table XXIII. TNs from the Mesara differentiated according to their mention in the various Linear B archives at Knossos.

Interesting detail from this overview is the concentration of texts dealing with the Mesara in the archive J1, where we also came across the names of the vassal king of Phaistos, *ku-ne-u* “Gouneus”, as well as the Hagia Triada functionaries *ma-di* and *ka-pa<sub>3</sub>-no*. Furthermore, a glance at the plan of Knossos with the location of the principal archives indicated as presented by Olivier 1967: 21 (see Fig. 79) suffices to show that three of the four quarters around the courtyard are involved, in short: that we have here a massive argument in favor of the unity of the archives!

In view of the attestation of the personal name of the Hagia Triada functionary *ma-di* in Hellenized genitive variant at Khania (KH 10) as noted in our overview above<sup>6</sup> and the involvement of scribe 115 with archive F14 in a.o. a text on *da-wo* in the Mesara (V 655), we could even go as far as to say that the Linear B inscriptions of Khania, assigned to the end of Late Minoan IIIB1, *c.* 1250 BC, should not be used as a criterion to date a substantial part of the Knossos tablets, as Olivier does in a tail-wagging-the-dog type of argument, but that rather the Late Minoan IIIA1 date of the portion of the Knossos tablets as arrived at in the above should be used as a criterion to date at least the Linear B records of Khania mentioned

<sup>6</sup> Note in this connection that contacts between Hagia Triada and Khania are assured by the mention of *ku-zu-ni* “Kydonia” (with L101 or AB 79 *zu*) in HT 13.4 and 85a.4.

here. In this manner, at least, also the use of the variant of B45 *de* typical of the Linear B inscriptions of both Khania and Thebes, the latter being assignable to the end of Late Helladic IIIA1, *c.* 1350 BC (see section IV.2.5 below) as observed by Hallager (1975: 67), is not hampered by chronological difficulties, but in fact chronologically adequate.

#### 5. THE RELATIONSHIP BETWEEN LINEAR B OF KNOSSOS AND THEBES

A problem related to that of the dating of the Knossos tablets is formed by the dating of the inscribed stirrup jars found in the House of Kadmos at Thebes. Doubt has been raised by scholars involved in the publication of the inscribed stirrup jars, like Jacques Raison (1968) and Anna Sacconi (1974), about the dating of these inscribed stirrup jars to the period of the destruction of the House of Kadmos at the outset of Late Helladic IIIA2, *c.* 1350 BC, as propagated by the excavator, S. Symeonoglou (1973: 22; 73-74). Rather, so the argument goes, these should be assigned to the period from which the bulk of the other inscribed stirrup jars stem, namely Late Helladic IIIB.

A first indication that the early dating of the in sum 68 Theban inscribed stirrup jars applies is formed by the fact that, as shown in our overview of the evidence on personal names above, some of the Theban examples are characterized by the name of an Hagia Triada functionary, namely *ku-pa<sub>3</sub>-nu*, be it in variant writing *ku-pa<sub>3</sub>-ni*. As we have seen, this person was active in Late Minoan IIIA1.

To this comes that some other vases contain the entry *pi-pi* in their legend, namely TH Z 846 and 854. Contrary to the opinion of Raison (1968: 64, with note 11), this is not a personal name, but a vocabulary entry, corresponding to the Linear A equivalent of Linear B *do-so-mo* [*dosmōi*] “as a present”, *pi-pi*, originating from Semitic *bibil* of the same meaning (Best 1973: 55; Best 1980: 169, note 50; Best 1981b: 21; see section II.1 above). Clearly, such a case of influence from Linear A on Linear B can no longer be surmised after Late Minoan IIIA1 or, in mainland terms, Late Helladic IIIA1.

A third argument in favor of Symeonoglou’s dating of the Theban inscribed stirrup jars is formed by the fact that one of these, TH Z 839, is characterized by the ethnonym *o-du-ru-wi-jo*. This ethnonym has convincingly been identified by Best (1989: 138-139) as a reference to the Thracian tribe of the Ὀδρῦσαι. As I have argued (Woudhuizen 1989), the Theban hinterland in archaeological

terms remained predominantly Minyan up to *c.* 1350 BC, which finds its explanation in the fact that this region up to that time was inhabited by Thracian tribes (think of the mythical Τερεύς in Daulis and Apollo Σιτάλκας at Delphi), who treasured their independence and in this manner resisted to the process of Mycenaeanization. Notwithstanding, these central Greek Odrysians appreciated the contents of the inscribed stirrup jars, as their distribution pattern shows with finds in Kreusis, Orkhomenos, and Gla (see Farnoux & Driessen 1991: 88-89) that the Theban examples were destined for the town's hinterland. As a consequence of the fact that independent Thracian tribes in the Theban hinterland are only conceivable before *c.* 1350 BC, the Knossian tablets with *o-du-ru-wi-jo* and related forms, which obviously are to be explained in terms of the ultimate Cretan origin of the Theban stirrup jars, can only date from the end of Late Minoan IIIA1, *c.* 1350 BC, as a *terminus ante quem*. Therefore, it deserves our attention that of the total of 4 tablets with 5 attestations involved, 3 (Ai(3) 982.1, scribe 204; Co 910.1, scribe 107; C 902.2/6, scribe 201) have been found in archive I3 and 1 (V(2) 145.2, scribe "124") in archive C (= RCT), the Late Minoan IIIA1 dating of which in this manner receives extra emphasis.

Note that against the background of the (Knossos centred) Cretan origin of the Theban inscribed stirrup jars a fourth and final argument for their early dating may be provided by the fact that the *o-du-ru-wi-jo*-vase is characterized by the entry *wa-na-ka-te-ro* "of the king"—no king of Knossos being reported with certainty by the literary sources after the rule of Idomeneus (see Schachermeyr 1983: 284).

## 6. DIFFERENCES BETWEEN LINEAR B OF KNOSSOS AND PYLOS

Last but not least, it remains to address Palmer's argument that there are no differences between Linear B of Knossos and of Pylos and that therefore a chronological gap between these two corpora of about 150 years is inconceivable.

A closer look at these two corpora, however, results in the verdict that differences between the Linear B of Knossos and Pylos are traceable, indeed. In order to underline this statement, I have focused on Cretan toponyms, which, with a view to the variations, shows a dramatic change in the period between *c.* 1350 BC and *c.* 1200 BC:

KN	PY
1. <i>a-mi-ni-so</i>	<i>a-mi-ni-so</i>
2. <i>ru-ki-to</i> (= Malia) (cf. CH/LA <i>a-ya-lu</i> “Stags’ Harbor”)	<i>ro-o-wa</i> <i>e-ra-po ri-me-ne</i>
3. <i>sa-ka-ri-jo</i> , <i>sa-qa-re-jo</i> (= Hagia Triada)	<i>o-pi-ke-ri-o-de</i>
4. <i>ku-ta-to</i> (= Gortyns)	<i>ko-tu-we</i>

Table XXIV. Cretan TNs differentiated according to their mention in the Linear B texts from Knossos and Pylos.

By means of conclusion, then, there seems no reason left to withhold us from the conclusion that Evans indeed did his job as an excavator and that we therefore should go back to his basic tenet of the unity of the archives.

#### Additional note

Evidence for Identical Persons in the Various Linear B  
Archives: Is there any?

If we want to find out whether there feature identical persons in the various Linear B administrations in like manner as we have come across linkers and big linkers between the various Linear A archives and some of their Linear B counterparts, the most promising set of evidence is that on the so-called “collectors”. The evidence on this particular group of recurrent combinations as assembled by Jean-Pierre Olivier (2001: 152-155) may in simplified form be presented as follows:

	KN	TH	PY	TI	MY
1. <i>a-ka-i-jo</i>	x	x			
2. <i>a-mu-ta-wo(-no)</i>	x	x	x		
3. <i>a-to-mo</i>	x		x		
4. <i>da-mi-ni-jo</i>	x		x		
5. <i>di-ko-na-ro</i>			x	x	

	KN	TH	PY	TI	MY
6. <i>ke-u-po-da</i>	x		x		
7. <i>ko-ma-we-ta</i>	x	x	x		
8. <i>ku-pi-ri-jo</i>	x		x		
9. <i>ku-ru-me-no</i>	x	x	x		
10. <i>ma-ri-ne-wo</i>	x	x			x
11. <i>pu<sub>2</sub>-ke-qi-ri</i>		x	x		
12. <i>we-we-si-jo</i>	x		x		

Table XXV. Recurrent names in Linear B differentiated according to site.

Now, in the preceding chapter we have applied the following criteria for the distinction of identical individuals: (1) the recurrent combination must be with certainty identifiable as a personal name; (2) these personal names should be occurring in combination in more than one set of documents.

If we apply the first criterion to the given set of Linear B data, the majority of the combinations will not stand the test, as *ku-pi-ri-jo* “Cyprian” and *we-we-si-jo* are ethnics, *a-to-mo* designates some sort of organization, *ke-u-po-da* “libation pourer” a profession, and *da-mi-ni-jo* (cf. TN *Epidamnos*) may well be an ethnic derivation of a place-name. To this comes that the combination *a-ka-i-jo*, under due consideration of Vladimir Georgiev’s (1966) observation that the loss of the digamma already set in during the Mycenaean period (cf. in this connection particularly *i-da-i-jo* [KN & PY] alongside *wi-da-jo* [KN] for the MN “(W)idaios”), is likely to be taken for an advanced form of the ethnic *Akhai(w)ios* “Akhaian”, occurring alongside conservative *a-ka-wi-ja* for the country name “Akhaia”. Of the residual 6 combinations, then, 4 can be identified as a personal name, namely *a-mu-ta-wo(-no)*,<sup>7</sup> *di-ko-na-ro*, *ku-ru-me-no* “Klymenos”, and *pu<sub>2</sub>-ke-qi-ri*, whereas the remaining 2, *ko-ma-we-ta* and *ma-ri-ne-wo*,

<sup>7</sup> Deger-Jalkotzy 2008: 181; my thanks are due to Frits Waanders for enabling me to consult this paper.

may well come into consideration as such even though an alternative interpretation as an indication of a group of people (“long haired” in the first case and an honorific title in the latter case if a derivative from Linear A *marena* “our guild-master”) cannot be ruled out altogether.

However, when we proceed with the application of the second criterion to the residual 4 or perhaps 6 personal names, the evidence from the “collectors” of Linear B archives fails in comparison to that presented above on the linkers and big linkers between the Linear A archives and some of their Linear B counterparts, as co-occurrences are only attested for derivatives of the possible personal names *ko-ma-we-ta* and *ma-ri-ne-wo* on the one hand and for derivatives of the personal name *pu<sub>2</sub>-ke-qi-ri* and the ethnic *a-ka-i-jo* on the other hand in the tablets from Thebes (Of 35 and Of 27, respectively, see Godart & Sacconi 1978) and similar evidence is definitely lacking in the other archives.

This latter observation does not, of course, necessarily exclude the possibility that some of the recurring personal names may actually refer to one and the same individual. Against the backdrop of the current dating system of the various Linear B archives, namely, it stands to reason to identify the feminine derivative of *pu<sub>2</sub>-ke-qi-ri* as attested for the Theban Of-series as a reference to the official bearing this name in the Pylos archives (Ta 711).<sup>8</sup> The same verdict may just as well apply to the derivative of the Pylian MN *di-ko-na-ro* (PY An 610.14, where he is specified as an *e-qe-ta* “follower”, i.e. a high official) as attested for the Tiryns tablets (TI Ef 3). If so, these two instances of recurring personal names provide positive evidence for *interregional contacts within the Mycenaean kingdom* at the end of the Bronze Age, c. 1200 BC. But the reoccurrence of the Knossian MNs *a-ka-i-jo* (actually an ethnic), *a-mu-ta-wo(-no)* and *ku-ru-me-no* “Klymenos”, and possibly *ko-ma-we-ta* and *ma-ri-ne-wo* as well, in the archives at Pylos, Thebes, and Mycenae must certainly be attributed to the prolonged use of these

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<sup>8</sup> Note that the direct association of *pu<sub>2</sub>-ke-qi-ri-ne-ja* with the ethnic adjective *a-ka-i-je-ja* in TH Of 27.3 may well indicate that the Pylian official in question is specified as an Akhaian, from which it would follow that the local Thebans are not included when this ethnic is used: these latter may perhaps be suggested to be referred to already in the Mycenaean period by the ethnic Kadmeians, whereas Akhaian, if so, would have a bearing only on inhabitants of the Peloponnesos and Attica (see Woudhuizen 2013b: 7-10; cf. section I.4 above). Such an inference would tally with the fact the Nestor, king of Pylos according to Homeros, is also specified as an Akhaian in the text of the discus of Phaistos, see section I.10 above.

personal names during the period of about 150 years which divides the Knossos archives (dated *c.* 1350 BC) from its given mainland counterparts.

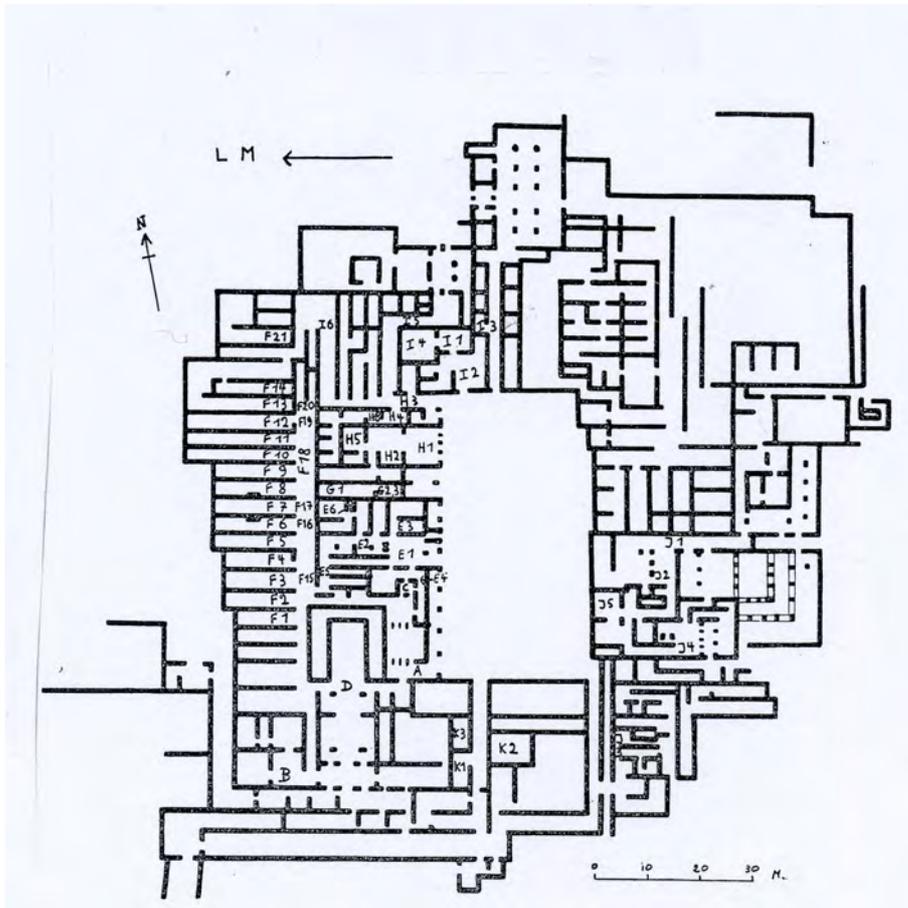


Fig. 79. Plan of the Palace of Knossos with indication of the principal archives (from Olivier 1967: 21).

## APPENDICES



## APPENDIX I: ARCHITECTURAL RELATIONS BETWEEN THE PALACE OF BEYCESULTAN AND THE PALACES OF MINOAN CRETE

In their final reports of the excavations of the palatial site at Beycesultan along the upper Maiandros-river (= present-day Büyük Menderes), Anatolia, situated near the confluence with the Glaukos-river,<sup>1</sup> the excavators Seton Lloyd and James Mellaart refrained from suggesting parallels for the architectural features they had discovered with those of palatial sites in neighboring areas like inner Anatolia and the Near East or Crete. This restraint to presenting merely the facts is not yet present in their preliminary reports of the excavations at Beycesultan as published in *Anatolian Studies* from volume 5 (1955) onwards.

In their second preliminary report (*Anatolian Studies* 6 [1956] 101-135), Seton Lloyd goes at great length in pointing out architectural correspondences between the “burnt palace” of Beycesultan (= level V), dated to *c.* 1900-1750 BC (see *Beycesultan* II [1965] 73) and the Minoan palaces in Crete. So, on pp. 118-119, he writes: “In fact, the most superficial comparison of the Beycesultan remains with those of the Cretan palaces at Knossos, Phaestos, and more particularly Mallia, is sufficient to convince us immediately of some striking and significant relationship.” Later on, pp. 120-123, he sums up all the architectural relationships between the “burnt palace” at Beycesultan and the Minoan palaces, in which features most prominently the central court (see our Fig. 80). As a final remark in this context, Seton Lloyd emphasizes (p. 123) that “the Beycesultan palace [= level V] must already have been in ruins when the Cretan palaces acquired this definite form in 1700 B.C.”

In their preliminary report on an Early Bronze Age shrine at Beycesultan (*Anatolian Studies* 7 [1957] 27-36), Lloyd and Mellaart inform us (p. 29) about two stelae that “They were placed 50 cm. apart and the gap between them was emphasized by a structure projecting from their base, which resembled in shape the so-called “horns of consecration” in Cretan architecture of much later date.” This remark concerns the level XV shrine as depicted in their Fig. 2

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<sup>1</sup> Cf. Garstang & Gurney 1959: 92-93.

on p. 30. As a matter of fact, from the publication of area R by Lloyd in *Beycesultan III*, 1 (1972) 26 ff. it becomes clear that the “horns of consecration” of the Early Bronze Age shrines levels XIV (see our Fig. 81) and XV are not attested merely for the shrines from levels XIII-IV, but turn up again during the Late Bronze Age in the shrines from levels II and III (see our Figs. 82-83). Against this backdrop, then, it seems not unreasonable to conclude that the absence of the “horns of consecration” during the Middle Bronze Age is only incidental and that a continuity of this religious feature from the Early Bronze Age to the Late Bronze Age might be assumed.

These observations in the preliminary reports were used by Leonard Palmer in his *Mycenaeans and Minoans* of 1961 (second edition 1965: 339-342) to underline his thesis that Crete, before its conquest by Akhaians from the Greek mainland, was inhabited by Luwians and that the at that time still enigmatic inscriptions in the script called Linear A were conducted in the Luwian language. Even though Palmer’s interpretation of the so-called “libation-formula” and his reading and translation of one specific example from this group of texts (pp. 327-339) are presently untenable,<sup>2</sup> recent research in the field has shown that his basic tenet, viz. that Minoan Crete was inhabited by Luwians (if we set aside for a moment the complexity formed by the fact that there were more population groups living in Crete during the Minoan period than just this one), happens to be correct (see further below).

To the diagnostic architectural features mentioned in the preceding, the central court of the “burnt palace”, baptized area 27 in the general plan as published in *Beycesultan II* (1965) 6, Fig. A.3, and the horns of consecration of the various shrines, I would like to add a third one, namely the “lustral chamber”, indicated as room 16 in the aforesaid general plan. In *Beycesultan II*, p. 10 this feature is described as follows: “This room (...) had a distinctive character and a fairly obvious function, as an anteroom for lustration before entering the main reception room (No. 10) to the south. The floor was heavily plastered with clay and burnt hard in the fire. Immediately inside the east doorway, a “lustral area” was sunk 25 cm. beneath the normal floor-level and two shallow steps led out of it on three sides. It was slightly irregular shaped and measured 3.00 x 2.75 m.” It is further

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<sup>2</sup> The same verdict applies to the more recent attempt by Margalit Finkelberg of 1990-1.

specified that around the base of the wall were 7 *pithoi* or water containers, 4 on the north side and 3 on the south side (see our Fig. 80).

If we turn to the comparative data, our first diagnostic feature, the central court turns out to be not exclusively paralleled for the Minoan palaces (see our Fig. 84), but to be a characteristic of Mesopotamian style palaces more in general, like in the case of Boğazköy-Khattusa (Schachner 2011: 138, Abb. 61) and Mari (Akkermans & Schwartz 2003: 314, Fig. 9.17). It is notably absent, however, in the lower-town palaces of Tell Mardikh-Ebla and the level VII palace of Tell Atchana-Alalakh (Akkermans & Schwartz 2003: 305)—the region in the Near East with which Crete may reasonably be assumed to have been in direct contact.

In contrast with the situation in regard to the central court, our second diagnostic feature, the “lustral chamber”, is indeed exclusively paralleled for the palaces of Minoan Crete. It can not be denied that in numerous cases the identification of a “lustral chamber” or “lustral basin” is subject to scholarly debate, as the distinction between this type of room with a bath-room is particularly delicate—especially so because in certain cases what of origin appears to have been a “lustral basin” has been rebuilt into a bath-room, see discussion by James Walter Graham (1987: 99-108; 255-269). But in one case at least the latter author is absolutely certain about the function of such a room, and that is the “lustral basin” directly associated with the “throne room” in the palace of Knossos and located opposite the throne itself. In this particular case, moreover, there is no doubt about the fact that the “lustral basin” in question served for ritual purposes (Graham 1987: 106). The problem of the “lustral basin” is also tackled by Nanno Marinatos, who reviews earlier views on the topic and, on the basis of the well-preserved case in room 3 of Xeste 3 at Akrotiri in Thera, argues for its identification as an *adyton* (Marinatos 1993: 77-87; 106-110). In the two given Minoan cases the “lustral basin” is entered by one flight of stairs only and appears to consist of a secluded area (see our Figs. 85-86). As opposed to this, in the Beycesultan case it is entered, as we have seen in the above, by steps from as much as three sides and, because of this, strikes us for its openness as compared to the given Cretan examples, leaving only the *sunken floor* as a diagnostic feature which all given examples have in common. Notwithstanding the fact that it is also entered by one flight

of stairs, a similar openness, however, characterizes what has been addressed as a prototype of the “lustral basin” in Quartier Mu at Malia (see our Fig. 87), which, for its dating to the Middle Minoan II period, in any case confronts us with the earliest Cretan example of this particular architectural feature (Gesell 1987: 125; Niemeier 1987: 164).

About the third diagnostic feature, the “horns of consecration”, we can be short: this is a famous characteristic of Minoan cult (cf. Dussaud 1914: 328, Fig. 238; 329, Fig. 239; 334-335, Figs. 242-243; 345, Fig. 252) (see our Fig. 88) up to the extent that it is even used as a decorative motif of the roofs of Cretan shrines (see our Fig. 89) and palaces (cf. Graham 1987: pls. 48 and 50 [Phaistos]), and definitely can not be found elsewhere—neither in Anatolia nor in the Near East.<sup>3</sup>

Now, in Beycesultan a stamp-seal inscribed in Luwian hieroglyphic has come to light in a well-defined layer in between Early Bronze Age level VI and Middle Bronze Age level V, and dating therefore to the period of *c.* 2000 BC (Lloyd & Mellaart 1958: 97; Lloyd & Mellaart 1965: 36). Apart from the fact that this seal thus turns out to be the earliest datable inscription in Luwian hieroglyphic and the earliest document bearing testimony of an Indo-European tongue, the reading of its contents proves without any shadow of a doubt that the ancient name of present-day Beycesultan was *Mira*, after which the Luwian kingdom of Arzawa was named when it became incorporated in the Hittite empire during the third year of the Hittite great king Mursilis II (1321-1295 BC), i.e. in 1318 BC (Woudhuizen 2016: 171-176; cf. Bryce 2010: 192-197). Accordingly, it may safely be deduced that the palace and subsequent administrative buildings at Beycesultan served as a residence of a Luwian king or dignitary and lay in a territory inhabited by Luwian population groups. To this comes that the suggestion may even be put forward that the place-name *Mira* actually confronts us with a rhotacized form of *\*Mida* < Proto-Indo-European *\*medhiyos* “middle”, in which case Beycesultan—on the analogy of linguistically related toponyms like Celtic *Mide* and Lesbian *Messon*—may reasonably be argued to have functioned as a federal sanctuary located in the middle of the land of

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<sup>3</sup> That is to say in its basic outline, which does not exclude the observation by Nanno Marinatos that in Crete “horns of consecration” are morphologically cognate with “twin mountain peaks” of what she calls the “East Mediterranean *koine*”, see Marinatos 2010: 107 ff.

the Luwian population groups in question, presumably once called Luwiya and running from *Apaša* “Ephesos” in the west to Konya in the east (Woudhuizen 2016: 88-90).

Against this backdrop, then, the architectural relations between the “burnt palace” and religious buildings at Beycesultan-Mira on the one hand and the palaces of Minoan Crete on the other hand may well be explained in terms of close contacts between these two regions during the Middle Bronze Age (c. 2000-1650 BC). It may even be argued, following in the tracks of Leonard Palmer, that such close contacts are in fact indicative of the presence in Crete of population groups which were ethnically related to those inhabiting the southwest corner of Asia Minor, i.e. Luwians.

At this point it becomes relevant to note that the earliest script recorded from Crete, the so-called Cretan hieroglyphic, attested from the beginning of the Middle Bronze Age, c. 2000 BC,<sup>4</sup> onwards, in effect consists of a local branch of Luwian hieroglyphic (I have established correspondence in form and function with a Luwian hieroglyphic counterpart for 85 Cretan hieroglyphic signs in sum, see pp. 42-44 with Fig. 25 above) supplemented by and large on a ratio of 4:1 by signs originating from Egyptian hieroglyphic (which verdict applies to 22 instances in sum, see Fig. 26 above). In line with this observation, it comes as no surprise that the longest Cretan hieroglyphic texts and, as far as can be deduced, the legends of the seals are conducted in a language most closely related to Luwian as represented by Luwian hieroglyphic, Lycian, and Lydian. Note, however, that this verdict applies with the proviso that in the Cretan dialect this form of Luwian serves as a matrix-language into which Semitisms and some isolated Egyptianisms are incorporated—in the case of Semitisms much like Akkadisms and Sumerograms in the so-called cuneiform Luwian<sup>5</sup> (see esp. section I.6 above).

In case of the subsequent Cretan Linear A, on which, as we have noted in the above, Leonard Palmer focused his attempt to prove the presence of Luwians in Crete, the facts are much more complicated. Most longer Linear A inscriptions, especially the ones belonging to

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<sup>4</sup> Note that the date of the beginning of the Middle Bronze Age in the Cretan context is less exact than its counterpart in the Anatolian context, see Woudhuizen 2016: 175, note 7.

<sup>5</sup> For cuneiform Luwian texts in the Arzawan language, see the so-called “Songs from Istanuwa”.

the group characterized by the “libation-formula”, are, as proved already in the 1980s by Jan Best and elaborated more recently by me, conducted in a Northwest Semitic idiom most closely related to the ones recorded for Byblos<sup>6</sup> and Ugarit (see sections II.3-5 above). The same verdict applies to the administrative texts of the Hagia Triada tablets (see section II.1 above). In the case of two Linear A inscriptions, however, it can be shown that the language recorded in them is Luwian (see sections II.6-7 above), whereas substrate influences from the same language are observable in the texts of the Hagia Triada tablets (see final part of section II.1 above). Finally, three short legends come into consideration as representing a non-Luwian but yet clearly Indo-European vernacular, perhaps most likely identifiable as Pelasgian (see section III.1 above).

If evidence from onomastics may have a bearing on the matter, it can be inferred from my overview of the relevant data that Luwians were the most numerous population group in Minoan Crete, but that these Luwians lived together on the island with a substantial body of compatriots from a Semitic and Pelasgian background as well as some Phrygians, Thracians, Egyptians, and Khurrites (see section III.2 above).

With a view to the Semitic component of the evidently multi-ethnic Cretan population it is conceivable that Near Eastern influences in architecture and cult-practices are detectable, too, as argued by Nanny de Vries. She compares the rooms VII, 3-4 and the placement of the altar in the central court of the palace of Malia with the situation in the temples in Beth-Shan and Megiddo, according to which the libation table in room VII, 13 should originally have belonged to room VII, 4. Furthermore, she draws attention to the religious symbols in the form of double axes and snake tubes which further underline the connection between Crete more in general on the one hand and Beth-Shan and Megiddo on the other hand (de Vries 1980: 125-134). The gist of the argument is that the palace of Malia in actual fact functioned as a temple.

Notwithstanding so, we have seen in the above that architectural influences from North Syria—the region with which Crete from a geographical point of view presumably was in more regular contact

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<sup>6</sup> Note in this connection that the signary of Cretan Linear A for a considerable part derives from the local Byblian script as developed from c. 1720 BC onwards, see Woudhuizen 2007: 707-711; 752-753, Fig. 10; cf. section II.2 above.

than inner Palestine—are unlikely in view of the absence of a central court in the palace of Tell Atchana-Alalakh VII (c. 1720-1650 BC). Moreover, the snake-tubes from the temple of Beth-Shan date from the period of Ramesses III (1184-1153 BC) and may therefore well come into consideration as Cretan imports during period of the upheavals of the Sea Peoples, among which feature the Philistines from Kaphtor (van Binsbergen & Woudhuizen 2011: 273-274). The origin of the double axe remains debatable as the southwest Anatolian evidence in the form of Zeus Labraundeus wielding this object as a weapon (Dussaud 1930: 151-152) stems from the classical period and may therefore well be due to colonial Cretan influence.<sup>7</sup>

On the basis of the foregoing overview of the relevant archaeological, epigraphic, and linguistic data, it may safely be concluded that our three diagnostic architectural relationships between the palace and religious buildings at Beycesultan on the one hand and the palaces of Minoan Crete on the other hand, viz. (1) central court, (2) “lustral basin”, and (3) “horns of consecration”, are indicative of contacts during the Middle Bronze Age between southwest Asia Minor and Crete which were so close that an ethnic affiliation between the population groups living in these two regions may safely be assumed. That is to say: because southwest Asia Minor is inhabited by Luwians, this particular population group can also be expected among the inhabitants of Crete and to have formed a substantial component of the ethnic make-up here—irrespective of how complex this ethnic make-up in the island may have been.

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<sup>7</sup> If Dussaud 1930: 111 is right in his observation that the seated deity in the center of the scene of the Tyszkiewicz seal holds a double axe, the Anatolian evidence for this religious symbol would be much earlier, as the seal in question dates from the late 18th or early 17th century BC (cf. Boehmer & Güterbock 1987: 36-38, esp. Abb. 24a, 1). In any case, the axe wielded by the double-faced god in the center of the Aydin seal is, contrary to Dussaud 1930: 116, not a double axe as the left side is clearly smaller in dimension and, in contrast with the rectangular right side, rounded in form, see Boehmer & Güterbock 1987: 38, Abb. 24b, 1. On the other hand, for Anatolia in general it is relevant to note that the god Sarruma in the central scene of chamber A at Yazılıkaya wields a double axe in his left hand, see Ehringhaus 2005: 24-25, Abb. 35; 37.

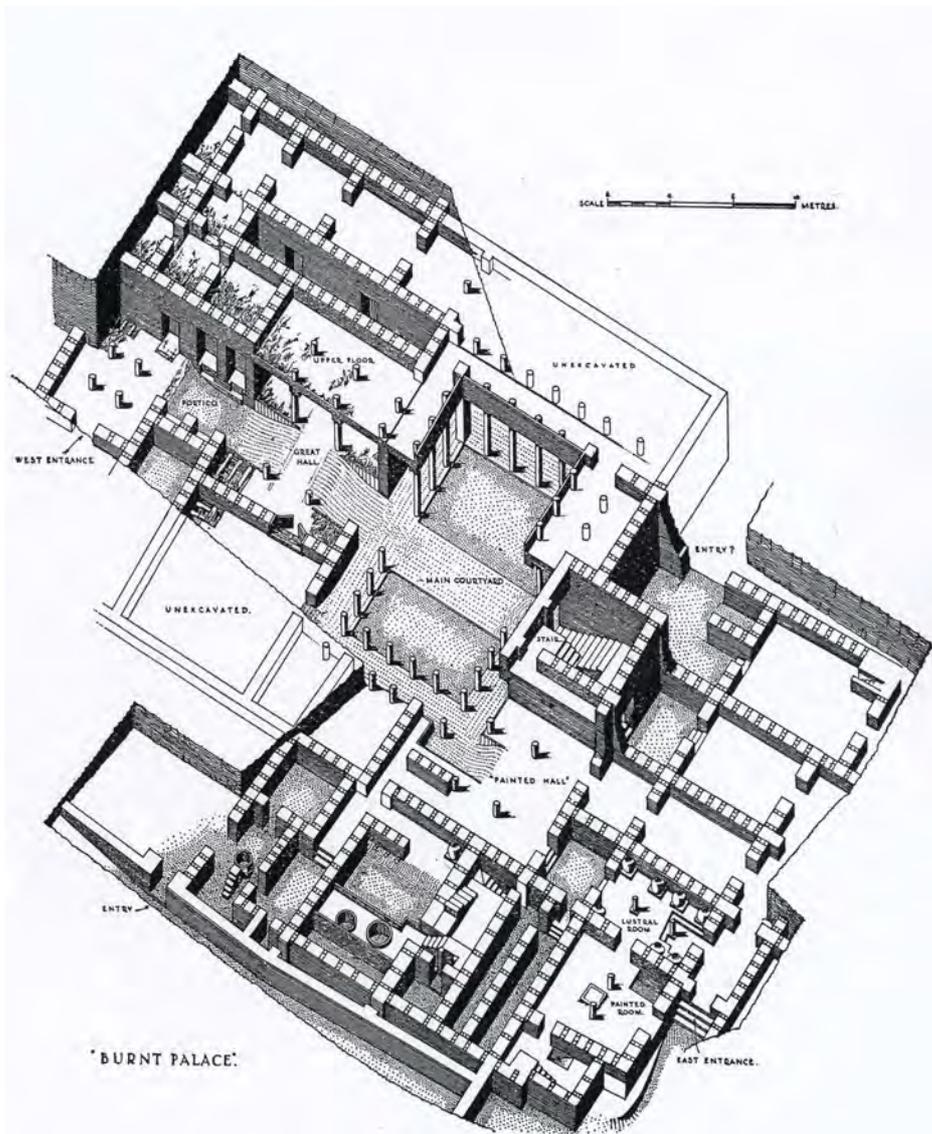


Fig. 80. Perspective reconstruction of "Burnt Palace" at Beycesultan  
(= *Beycesultan* II: 30, Fig. A.13).

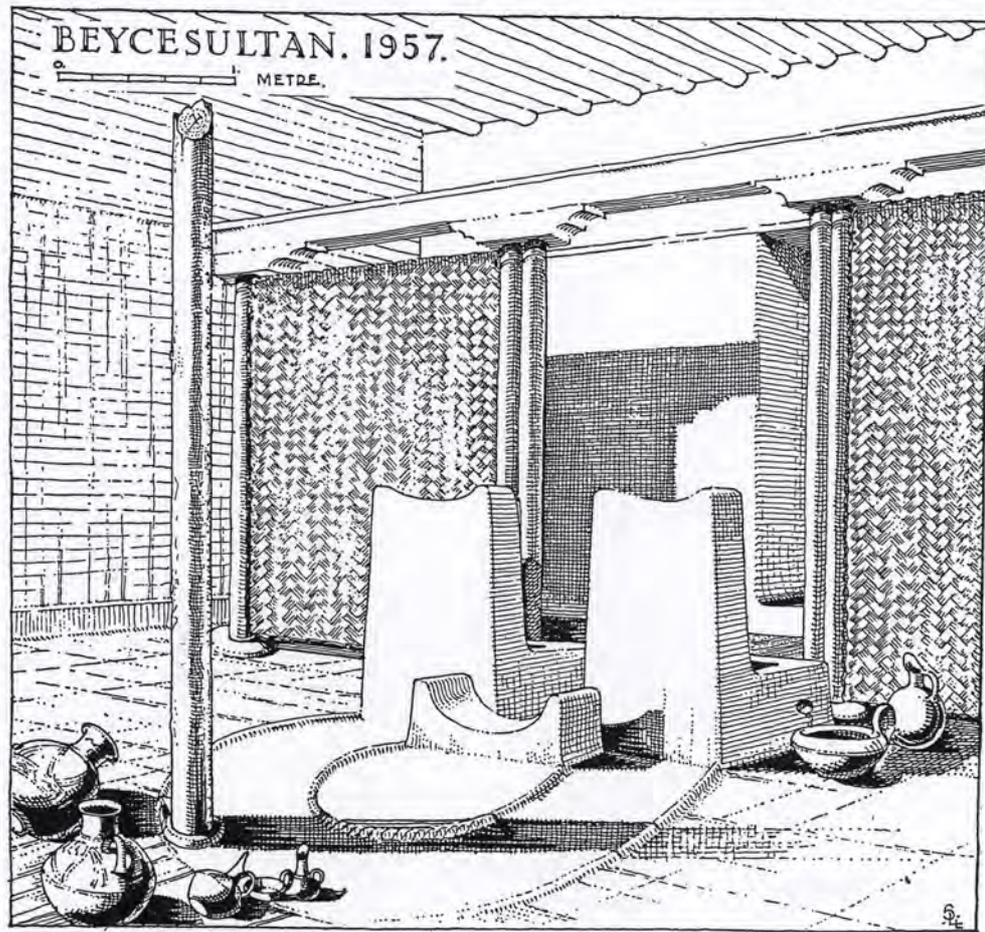
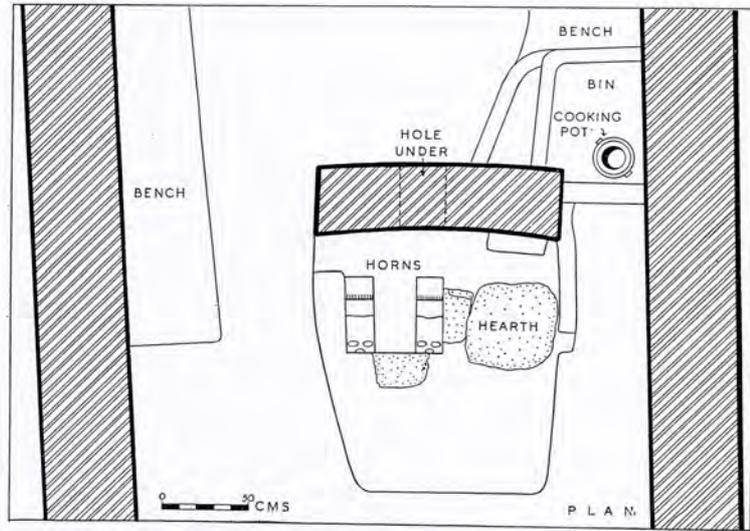
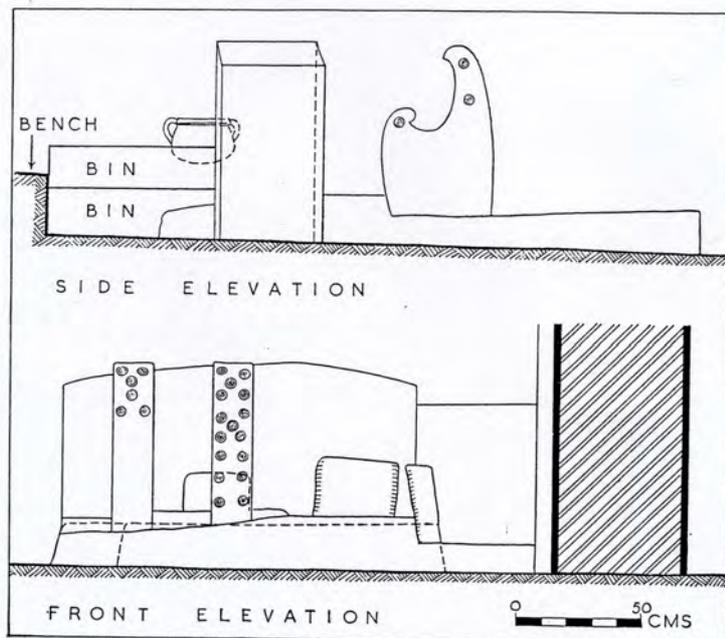


Fig. 81. Reconstruction of altar in shrine of Level XIV (= *Beycesultan* I: 52, Fig. 20).



(a)



(b)

Fig. 82. Plan of ritual installations in shrine of Level III (= *Beycesultan* III, 1: 26, Figs. 8-9).

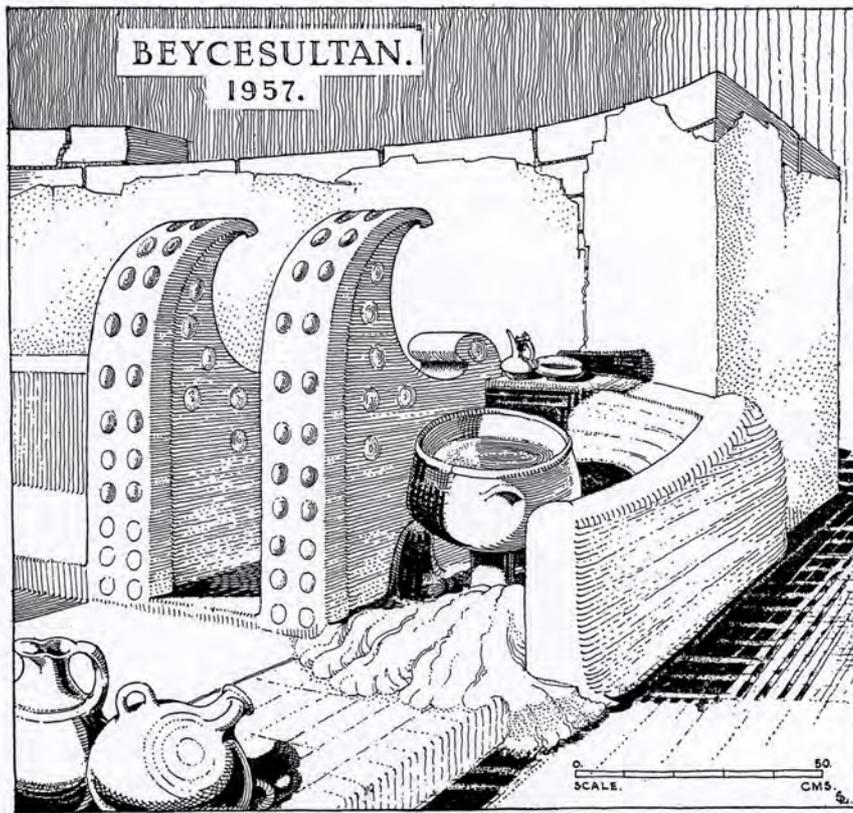


Fig. 83. Reconstruction of ritual installation in shrine of Level II (= *Beycesultan III*, 1: 32, Fig. 13).

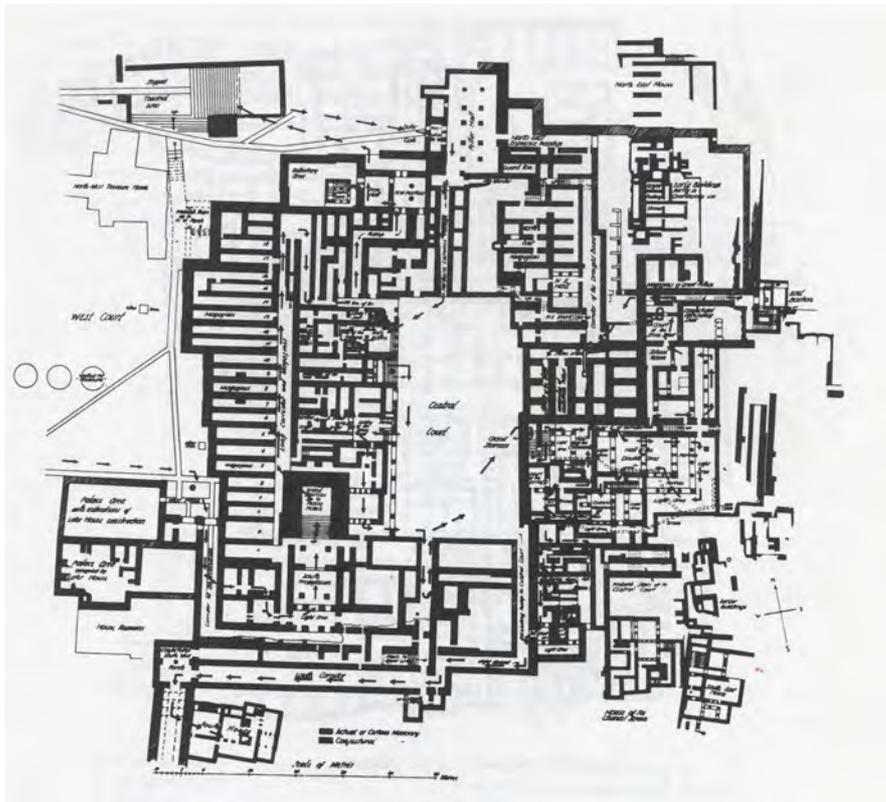


Fig. 84. Plan of the palace of Knossos (from Marinatos 1993: 41, Fig. 34).

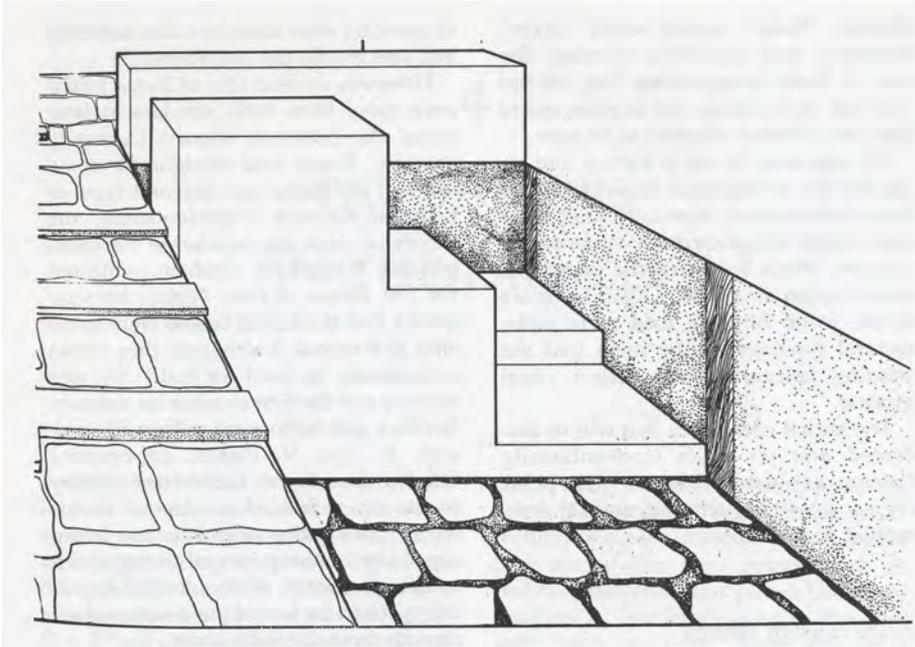


Fig. 85. Adyton of Akrotiri, Xeste 3, room 3 (from Marinatos 1993: 78, Fig. 63).

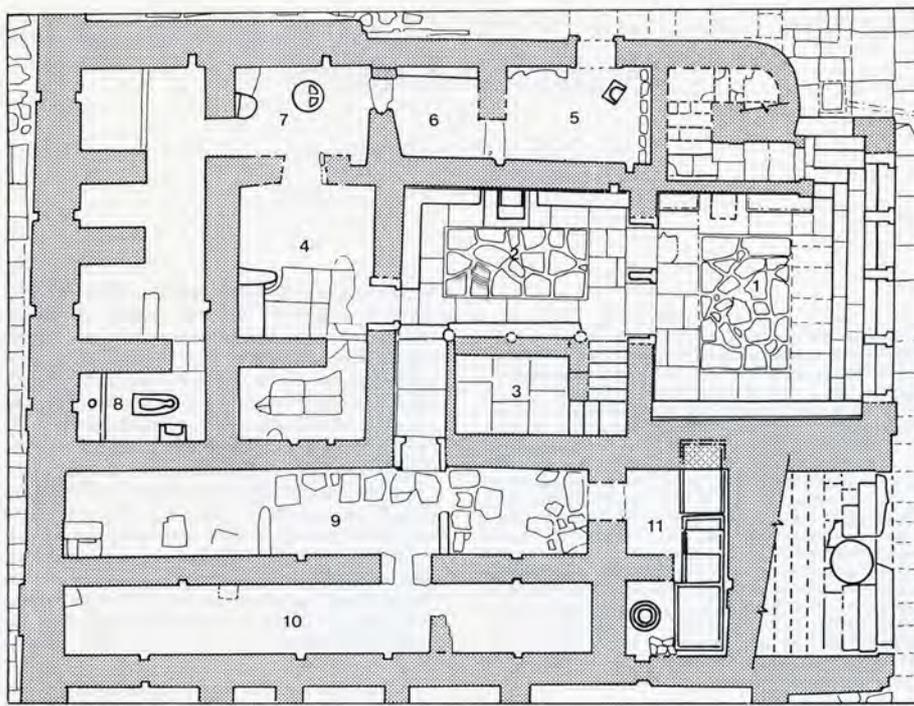


Fig. 86. “Lustral basin” (no. 3) associated with the “throne room” (no. 2) in the palace of Knossos (from Niemeier 1987: 164, Fig. 1).



Fig. 87. Middle Minoan II prototype of “lustral basin” (no. 3) associated with the “main room” (no. 2) in Quartier Mu at Malia (from Niemeier 1987: 165, Fig. 2).



Fig. 88. Minoan seal with altar topped by “horns of consecration”  
(from Dussaud 1914: 345, Fig 252).

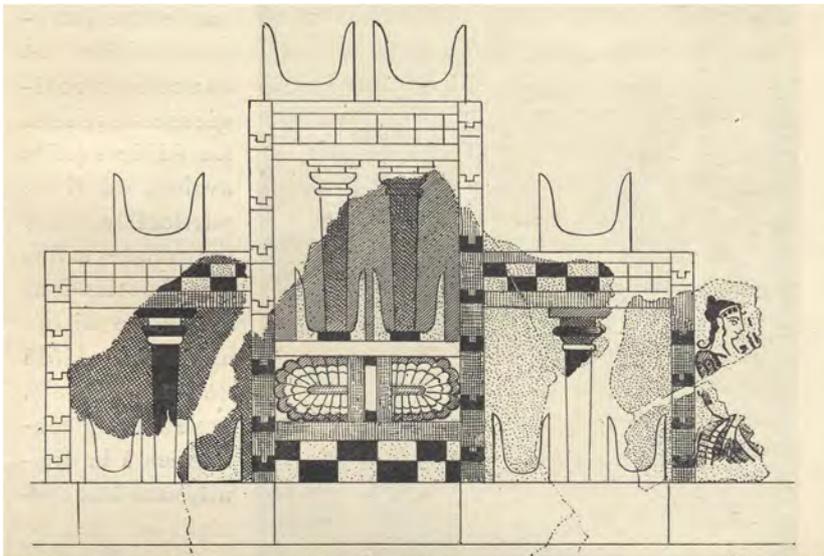


Fig. 89. Tripartite shrine in the “Grandstand Fresco” from the Palace  
of Knossos (from Dussaud 1914: 335, Fig. 243).

## APPENDIX II: EVIDENCE FOR A LOCAL VARIANT OF EGYPTIAN HIEROGLYPHIC IN PRE- AND PROTOPALATIAL CRETE\*

### 1. INTRODUCTION

In this appendix the Egyptian hieroglyphic legend of a selection of six scarabs, among which one scaraboid, will be discussed, which came to light in the island of Crete and stem from the Pre- and Protopalatial period, *i.e.* the time immediately before or contemporary with the First Palatial period during the first centuries of the 2nd millennium BC. I will try to increase our understanding of the contents of the legends in question on the basis of the Egyptian hieroglyphic signary as established from the times of its decipherer, François Champollion, onwards. For convenience's sake, I will use the edition of the signary by Sir Alan Gardiner (3rd edition of 1994) as a reference work in this endeavor.

As far as the contents of the legends are concerned, I show that there can be distinguished three distinct groups: 1. country names, 2. personal names, and 3. wish-formulas.

In an earlier draft of this paper I focused on the scarab and scaraboid with country names, with which I was already familiar (see van Binsbergen & Woudhuizen 2011: 328-329, Figs. 27.2 and 27.3) owing to the consultation of Brinna Otto's popular work on king Minos and his people and Nikolaos Platon's contribution to the *Corpus of Minoan and Mycenaean Seals* (CMS II, 1) of 1969. The legend with a personal name, with which I was also already familiar thanks to the same sources (van Binsbergen & Woudhuizen 2011: 328, 330, Fig. 27.4), I only mentioned in passing, and did not discuss like here under a separate heading.

My inquiries into the topic, however, were facilitated to a great deal by the commentary on the aforesaid earlier draft by professors Manfred Bietak and Ernst Czerny, who kindly drew my attention to the articles by Felix Höflmayer to *Ägypten und Levante* 17 of 2007 and Daphna Ben Tor to Volume II of the *FS Bietak* of 2006. In addition, an anonymous referee pointed out that consultation of the

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\* I like to express my feelings of sincere gratitude to professors Manfred Bietak and Ernst Czerny as well as an anonymous referee for kindly drawing my attention to literature highly relevant to the topic in their reaction on an earlier draft of the manuscript of this appendix.

dissertation by Jacqueline Phillips of 1991 was highly recommended. Being at a loss at this point, as no copy of the latter work is available in a Dutch library, I contacted the author herself and she kindly informed me that an updated version had been published in 2008 by the Austrian Academy of Sciences under the title *Aegyptiaca on the Island of Crete*, a copy of which I subsequently acquired myself. In this manner, then, I also became aware of the importance of the glossy exhibition catalogue edited by Alexandra Karetsou and Maria Andreadaki-Vlazaki, which was published already in 2000 and contains a separate section on scarabs. Owing to the consultation of these publications I stumbled upon some more Cretan scarabs with an Egyptian hieroglyphic legend, *in casu* the ones with a wish-formula, dating from about the same period or a little afterwards, and so it became clear to me that as far as their contents are concerned there can be distinguished three general categories, already specified above. All six selected objects can indeed be found in Phillips' catalogue.

Much to my regret, I have to admit that I was not in the position to consult the *SIMA* volume 30 dedicated to publication of the tombs of Lebena in southern Crete by Stylianos Alexiou and Peter Warren of 2004, in which Platon's (1969) nos. 180 and 201 have been discovered, because the only copy available in The Netherlands happens to be reported "missing".

This omission is now largely compensated by Höflmayers book on the synchronization of the Minoan Old and New Palatial periods with the Egyptian chronology, which recently appeared and in which five of the six scarabs (one of which, as has been said, entails a scaraboid) are treated—be it not for the content of their legend, but their chronological significance—and published together with their nearest Egyptian equivalents (Höflmayer 2012). It is only fair to admit here that in my selection of the nearest Egyptian equivalents of the Cretan seals treated here I am heavily indebted to the aforesaid monograph, as duly acknowledged in the captions of the figures in question.

## 2. COUNTRY NAMES

In the CMS II, 1, edited by Nikolaos Platon, which focuses on seals assigned to the Prepalatial period from the Archaeological Museum of Heraklion, two seals (nos. 95 and 201) are of special interest because it thus far has not been observed that they are actually

inscribed with an Egyptian hieroglyphic legend (Platon 1969: 109; 226).

The first seal, no. 95 (see Fig. 92), is a scaraboid of white paste found in Tholos tomb A in Hagia Triada, southern Crete; note that Karetsou & Andreadaki-Vlazaki 2000: 306 identify the material of which the object is made as white steatite. According to Olivier Pelon, the period of use of this tomb covers the period from Early Minoan (= EM) II to Middle Minoan (= MM) II (Pelon 1976: 474-475, Tableau I). In terms of absolute chronology as established most adequately by Peter Warren and Vronwy Hankey, this means from c. 2900 BC to c. 1700/1650 BC (Warren & Hankey 1989: 169, Table 3.1).

The second seal, no. 201 (see Fig. 90), is a scarab of bone and has come to light in Tholos tomb II at Lebena, also in the Mesara plain of south-central Crete; note that Karetsou & Andreadaki-Vlazaki 2000: 309 identify the material of which the object is made as white steatite, again. To this particular tomb, Olivier Pelon attributes a period of use stretching from the Neolithic (= Neol.)/Early Minoan I transitional period to Middle Minoan I (Pelon 1976: 474-475, Tableau I). Transposed in terms of absolute chronology according to the system as devised by Warren and Hankey, this boils down to a time frame from c. 3650/3500 BC to the 19th century BC (Warren & Hankey 1989: 169, Table 3.1).

It deserves our attention in this connection that both objects are pierced lengthwise, so that, at some time in their period of use, they were carried strung on a cord.

Of these two seals, only the first one has received treatment in the literature before its inclusion in CMS II, 1. This is seal no. 95, which for the first time has been published by Frederick Halbherr in 1904 in a volume of a periodical which is unavailable in The Netherlands, and therefore this particular reference, given by Platon (1969: 109), could not be checked by me. Subsequently, John Pendlebury has included the seal in question in his edition of *Aegean Egyptiaca* of 1930, on p. 9 as his no. \*7 and presented a photo of it in the accompanying Pl. I, no. 7. In his opinion the tomb from which the scaraboid of white paste originates dates to Early Minoan times, and the legend at the lower side is characterized by the design of a lotus flower. Finally, the seal received attention by Luise Banti in her lengthy paper on the great tholos tomb at Hagia Triada from 1930-31. In addition to presenting a drawing (p. 215, Fig. 116, N. 258a), she describes the seal on pp. 214-215, and refers to Pendlebury for the Egyptian nature of the legend on its lower side. With some hesitation,

in her opinion the floral design consists of a depiction not of a papyrus plant, but, in line with Pendlebury's suggestion, of a lotus flower. However, on the authority of professor von Bissing, she suggests that we are not dealing here with an Egyptian import as Pendlebury seems to maintain, but with a local Cretan product in imitation of Egyptian counterparts, freely so in the sense that it is not an exact copy of an Egyptian forerunner.

The second seal, which was found later—apparently, according to the rather limited information in CMS II, 1, by Alexiou—, did not enjoy so much attention, but it was included in Brinna Otto's popularizing work on the Minoan civilization as her Abb. 50 on p. 159. What is more, in discussing the legend of this seal, Otto reached the first breakthrough into the process of understanding its contents by identifying on p. 247 the sign in the middle as a stem of papyrus, which in the Egyptian hieroglyphic script expresses the value *w3d* “green”, which comes close to saying that we have an instance of Gardiner 1994 sign M13 here! However, she does not continue along this promising line of approach and identifies the remaining two signs placed antithetically on both sides of the papyrus stem as Egyptian hieroglyphic signs as well, but appears to be satisfied to leave the matter as it is while referring to Sir Arthur Evans' (1921: 509) ideas about the religious meaning of the Egyptian *waz*-symbol in Minoan cultic expressions.

While taking Otto's identification of the papyrus stem as the *w3d*-sign (Gardiner 1994: M13) as a starting point, it is argued by me in my book with Wim M.J. van Binsbergen on *Ethnicity in Mediterranean Protohistory* of 2011 on the basis of the clear photographs of the objects, their imprint, and their drawing as presented by Platon 1969 sub nos. 95 and 201, that the designs on the lower side of the scaraboid and the scarab confront us with legends in the Egyptian hieroglyphic script (van Binsbergen & Woudhuizen 2011: 328-329, Figs. 27.2 and 27.3). For both seals the observation applies that, after placing the first sign in the top center of the legend, the scribe continued antithetically by placing the next signs going downwards to the left as well as to right side of it.

The objects in question, and the content of their legend, may, with due reference to the latest literature, be most adequately described as follows (as we have noted in the above, our numbering of the signs follows that of Gardiner 1994):

(1) **Lebena, Tholos tomb II (Fig. 90)**

Object: scarab of bone or white steatite, pierced lengthwise.

Publications: Platon 1969: 226, no. 201; Otto 1997: 159, Abb. 50; Karetsou & Andreadaki-Vlazaki 2000: 306, no. 300; Ben Tor 2006: 82, Fig 1a, no. 1 (note that the author wrongly compares the stem of papyrus, M13, flanked on both sides by the hieratic shorthand variant of the quail chick G43, Z7, with the clumb of papyrus, M16); Höflmayer 2007: 111, Abb. 3; Phillips 2008, II: 182-183; 346, no. 367 (face: no Egyptian hieroglyphic signs identified); van Binsbergen & Woudhuizen 2011: 328-328, Fig. 27.2; Höflmayer 2012: 55-57, Abb. 8, 1.

Dating: late 11th dynasty (Phillips 2008, II: 182); late 11th or early 12th dynasty (Höflmayer 2007: 111, note 52; Höflmayer 2012: 57); 2195-2080 BC (Karetsou & Andreadaki-Vlazaki 2000: 306).

## Legend

sign number	identification	value
1. M13	stem of papyrus	$w^{\text{3}}\underline{d}$
2. Z7	hieratic shorthand variant of G43	$w$
3. D21	mouth	$r$

Reading in sum:  $w^{\text{3}}\underline{d}-w-r$ , which cannot be dissociated, of course, from the Egyptian geographic name  $W^{\text{3}}\underline{d}-wr$ .

The closest Egyptian parallel of this seal is provided by a scarab from Qau (see Fig. 91).

The geographic name  $W^{\text{3}}\underline{d}-wr$ , which also occurs in various writing variants, is most thoroughly discussed by Jean Vercoutter in his seminal work on Egypt and the pre-Hellenic Aegean of 1956 (pp. 125-158). In his opinion, this notion, translated as the “Great Green” and commonly interpreted as a reference to the sea, for the first time certainly refers to the Mediterranean Sea in a text from the beginning of the reign of the 18th dynasty king Tuthmosis III, who ruled from 1479 to 1425 BC (Vercoutter 1956: 129; for the dating of his reign, see Kitchen 1996: 12 = Kitchen 2000: 49). But he also points out that, whatever its specific connotation, this particular geographic name is first attested—as far as texts are concerned—for the text of Sinuhe, who fled from Egypt to Qedem in the hinterland of Byblos at the time of the death of the first pharaoh of the 12th dynasty, Amenemhat I, who ruled from 1973 to 1944 BC, and, after some time of exile, returned to Egypt sometime in the reign of the latter’s

successor, Sesostris I, whose reign, after a co-regency with his father, ran on to 1908 BC (dates of the reign of the given kings according to Kitchen 1996: 11 = Kitchen 2000: 49).



Fig. 90. CMS II, 1, no. 201 (from Platon 1969: 226).

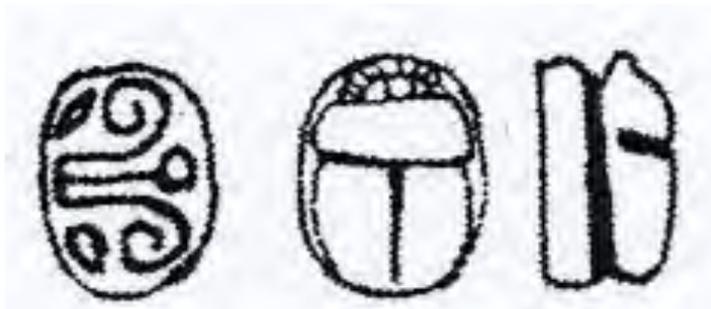


Fig. 91. Egyptian parallel from Qau (Höflmayer 2012: Abb 8, no. 2).

**(2) Hagia Triada, Tholos tomb A (Fig. 92)**

Object: scaraboid of white paste or steatite, pierced lengthwise.

Publications: Platon 1969: 109, no. 95 (with references to earlier literature); Karetsou & Andreadaki-Vlazaki 2000: 309, no. 306

(wrongly attributed to tholos tomb B); Ben Tor 2006: 83, Fig. 1b, no. 10 (note that the clod of papyrus, M16, flanked on both sides by the hieratic shorthand variant of the quail chick G43, Z7, is wrongly compared to a clod of papyrus flanked on both sides by the crown of Lower Egypt, S3); Phillips 2008, II: 23; 300, no. 28 (material: bone or ivory; face: no Egyptian hieroglyphic signs identified); not included in Höflmayer 2007, but see now Höflmayer 2012: 112-114, esp. Abb. 41, 1; van Binsbergen & Woudhuizen 2011: 328-329, Fig. 27.3.

Dating: 12th or 13th dynasty, 1938-1644 BC (Karetsou & Andreadaki-Vlazaki 2000: 309), or possibly even earlier, late 11th or early 12th dynasty (Phillips 2008, II: 23; Höflmayer 2012: 113-114).

## Legend

sign number	identification	value
1. M16	clumb of papyrus	<i>h3</i>
2. Z7	hieratic shorthand variant of G43	<i>w</i>
3. V30	wickerwork basket	<i>nb(t)</i> <sup>1</sup>

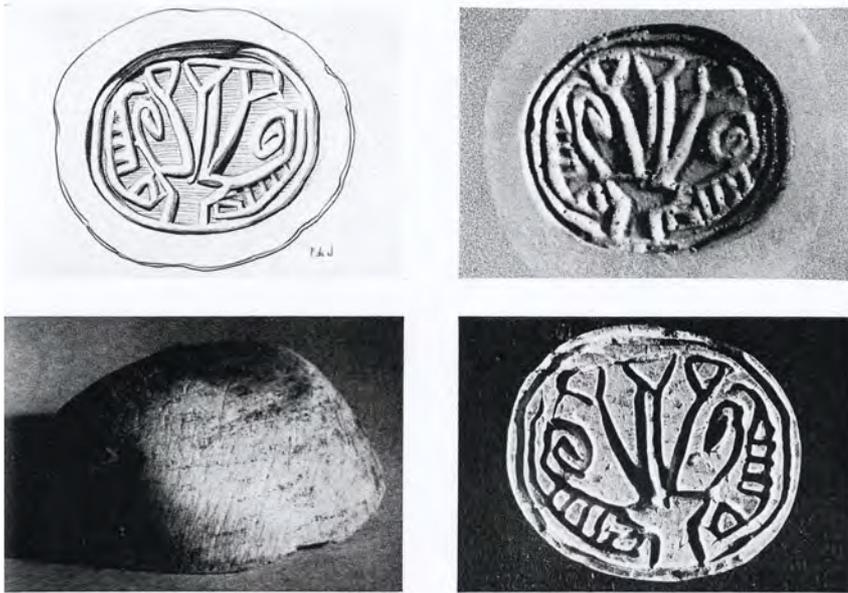
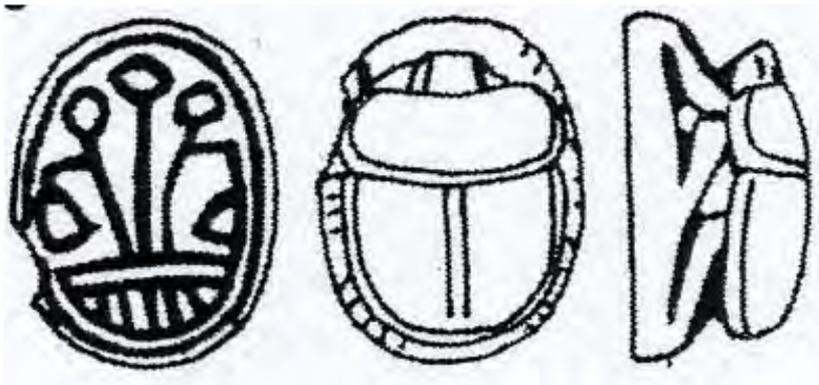


Fig. 92. CMS II, 1, no. 95 (from Platon 1969: 109).

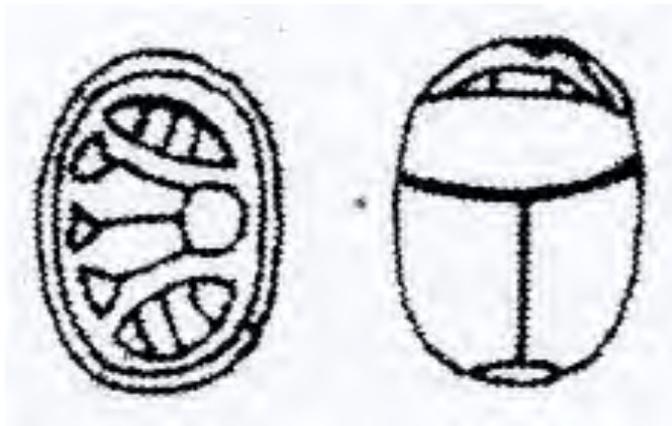
<sup>1</sup> Note that V30 *nb* can be used as well for the logographic value *nbt* “wickerwork basket”, see Gardiner 1994: 573, sub *nbt* (*H3w-nbwt*) and *nb* “every, all”, where, under reference to Gardiner 1994: 47, § 48, 1 it is specified that V10 *nb* “every, all” is also used to express the feminine *nbt*.

Reading in sum: *h<sub>3</sub>-w-nbt*, which bears a striking reminiscence to the Egyptian geographic name *H<sub>3</sub>w-nbwt*.

The nearest Egyptian parallels are from Mostagedda and Qau (see Fig. 93), of which, however, only the one first mentioned may be assumed to bear testimony of a reflex of *w* in the form of the *w<sub>3</sub>d*-sign (M13).



(a) Mostagedda



(b) Qau

Fig. 93. Nearest Egyptian parallels from (a) Mostagedda (Höflmayer 2012: Abb. 8, no. 6) and (b) Qau (Höflmayer 2012: Abb. 41, no. 2).

The geographic name *H3w-nbwt* is most extensively discussed by Vercoutter, again, in his aforesaid seminal work on Egypt and the pre-Hellenic Aegean of 1956, but with a certain bias: he goes at great length to deny the opinion of Pierre Montet that this geographic name refers to the pre-Hellenic Aegean region and hence should not be included in his work at all (Vercoutter 1956: 15-32). As opposed to this, Alan Gardiner positively states that, although it originally refers to indeterminate foreign regions, it later no doubt has a bearing on the Mediterranean coastal zone north of the Egyptian delta, or, to be more specific, “Mediterranean Islanders” (Gardiner 1947: § 276, 206-208),<sup>2</sup> while ultimately it ended up, in Ptolemaic times, as the name for the Greeks (Gardiner 1994: 573). For our purposes, it is of importance to note that, in a variant writing slightly differing from the regular ones, this geographic name is first mentioned in a text by the 4th dynasty king Kheops (or Khufu) (Vercoutter 1956: 27), who, according to the chronological reconstruction by Kenneth Kitchen, ruled in the years from 2593 to 2570 BC (Kitchen 1996, 11 = Kitchen 2000: 48).

In summary, an overview of the most relevant data from our foregoing discussion of the seals with a country name might be presented as follows (see Table XXVI):

object	Egyptian place-name	earliest attestation	Cretan find spot	period of tomb use
scaraboid	<i>H3w-nbwt</i>	Kheops 2593-2570 BC	Hagia Triada Tholos A	EMII-MMII
scarab	<i>W3d-wr</i>	Sinuhe c. 1930 BC	Lebena Tomb II	Neol./EMI-MMI

Table XXVI. Overview of the most relevant data concerning the seals with a country name.

<sup>2</sup> Gardiner 1947: 206 adds “or perhaps occasionally the islands themselves”. *Ibid.*, p. 208 “regions of the Mediterranean islanders”, cf. the more common expression “the middle islands of the Great Green”. According to his information the first occurrence of this expression is traceable in a text of the 5th dynasty king Sahure, whose reign dates from 2508 to 2494 BC according to Kitchen 1996: 11 = Kitchen 2000: 48.

From this overview, it follows that the dates of the earliest attestation of the two geographic names in Egyptian texts are not incompatible with the dates for the period of use of the tombs in which the two Cretan seals discussed in the above are found. But these Cretan seals need not be as old as the earliest mention of the geographic name they seem to bear testimony of in the Egyptian texts: this only provides us with a *terminus post quem*. As far as dating is concerned, yet another criterion is provided by the use of the sign Z7 w, which, as we have noted, consists of a hieratic shorthand variant of G43, depicting a quail chick, which, according to Gardiner, occurs with increasing frequency from the 9th dynasty onwards (Gardiner 1994: 537). In line with this observation, we are allowed to lower our *terminus post quem* to the First Intermediate Period, which covers the dynasties 7 to 11. To conclude the question of dating, I do believe that already Pendlebury in his publication of “Aegyptiaca” of 1930 may have been right in assigning seal no. 95 to the period of the 12th dynasty, and that the same verdict might likewise apply to its stylistically close counterpart no. 201.<sup>3</sup> This latter verdict can now be ascertained by hard evidence from the most recent publications according to which no. 95 dates to the 12th or 13th dynasty, 1938-1644 BC (Karetsou & Andreadaki-Vlazaki 2000: 309) and no. 201 to the late 11th or early 12th dynasty (Höflmayer 2007: 111, note 52) or 2195-2080 BC (Karetsou & Andreadaki-Vlazaki 2000: 306).

Working from the given fact that the Egyptian country names *H3w-nbwt* and *W3d-wr* from an Egyptian point of view refer to foreign countries which in certain instances are likely to be situated in the Aegean region, in my opinion it lies at hand to assume that the scarab and scaraboid (Platon 1969 nos. 201 and 95, respectively) were made locally in Crete and that Egyptian scribes who migrated to the Mesara in southern Crete, or their local Cretan colleagues with expert knowledge of the Egyptian hieroglyphic script, simply wrote

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<sup>3</sup> Note that according to Newberry (1906: 69) scarabs came into general use from the middle of the 12th dynasty onwards—an observation confirmed by the latest investigation on the topic, cf. Ben Tor 2006: 78. He further asserts “that scarabs were not employed in Egypt before the end of the Sixth Dynasty, and then only rarely.” He is followed in this opinion by Alexiou (1958: 6). In line with this reasoning, scarabs with royal names dating from the period before the 11th dynasty (Newberry 1906: 67; 118, Pl. IX, 1-9) come into consideration as later concoctions. Note that the plates in Flinders Petrie 1976 with a bearing on the earliest scarabs, dating from the Archaic period (Menes) to the 11th dynasty (Montuhotep III, 1992-1980 BC), make up only a very small part of the entire corpus.

down the name of the location of their present residence. Such a view is further underlined by the fact that, contrary to the situation in regard to no. 201, an exact equivalent from Egypt proper appears to be lacking for no. 95. Only in case of the counterpart from Mostagedda it may reasonably be suggested that the otherwise lacking sign Z7 *w* is expressed here by M13 *w*3*d*—and this only under the condition that, in contradistinction to its normal use, the sign is used for the rendering of the acrophonic value *w* here.

### 3. PERSONAL NAME

The antithetic arrangement, which typifies Platon 1969 nos. 95 and 201, is also characteristic for the legend of the scarab catalogued as his no. 180, to which my attention was drawn by Otto 1997: 158, Abb. 49 (see Fig. 94). It has been discovered, like Platon 1969, no. 201, in a tholos tomb at Lebena in southern Crete, however this time not the one labeled no. II, but the one specified as no. I. According to Pelon (1976: 474-475, Tableau I) this particular tomb has been in use from Early Minoan II to Middle Minoan I. The scarab was first published by Alexiou in 1958, and described by him as being made of ivory, whereas Platon (1969: 204) takes the material for bone (note that Karetsou & Andreadaki-Vlazaki 2000: 306 identify the material of which the object is made as white steatite). He further reported that according to the opinion of I.E.S. Edwards, the director of the Egyptian department at the British Museum at the time, the form of the scarab indicates that it “is not a native Egyptian product” (Alexiou 1958: 6). However, this opinion did not convince Alexiou himself and he believed it to be an Egyptian import (Alexiou, *loc. cit.*).

Most recently, this scarab is discussed by Höflmayer (2012: 52-55). He provides close parallels for the legend on scarabs from Kahun (see Fig. 95), in which the *nfr*-sign F35 occurs with so-called C-spirals. As far as the dating of the object is concerned, the latter author sides with the meaning of most specialists in the field and assigns it to the period of the late 11th or early 12th dynasty.

As far as the contents of this legend is concerned, Höflmayer (2007: 110), like Alexiou before him and Phillips (2008, II: 181) after him, has already identified the sign in the middle as an instance of F35 *nfr* and the sign in a partly—three sides only—represented rectangular frame on top and below it as instances of S34 *nh*. In line with the analysis of Ben Tor 2006: 82, Fig. 1a ad no. 2 he wrongly

takes the sign placed antithetically to the left and right of the central F35 *nfr* as a spiral motif for decorative purposes only (in Phillips terms a “C-scroll”). As I have argued in van Binsbergen & Woudhuizen 2011: 328 (cf. 330, Fig. 27.4), we appear to be confronted here with a sign foreign to Egyptian hieroglyphic, but paralleled for Cretan hieroglyphic (Evans 1909: sign no. 122 = CHIC 077) and, in my opinion at least, ultimately originating from Luwian hieroglyphic (Laroche 1960: \*415), in which it expresses the syllabic value *sa*. If so, we arrive at the reading of the central part of the legend as *sa-nfr*, which recalls the Egyptian personal name *sn-nfr-f-r* “Sennefer” as recorded twice (names labeled as (j) and (l), respectively, see Fig. 2b above) for an Egyptian hieroglyphic text. This text, in view of its introductory phrase running as follows: *irt rn.w n kftiw* “to make names of the Keftiu”, consists of an exercise in writing personal names of the *Keftiu* (attested from the latest phase of the Early Bronze Age onwards as a designation of the inhabitants of the island of Crete, see Vercoutter 1956: 33-123, esp. 45-51), generally assigned to the period of the early 18th dynasty, c. 1550-1450 BC (Woudhuizen 1992a: 1-2, with note 6; Woudhuizen 2009: 97, note 3). Accordingly, we appear to be dealing with a category of legend which is distinct from the previous one characterized, as we have seen, by country names, namely one rendering a personal name, to be more specific an Egyptian one recorded for high functionaries from the reigns of Tuthmosis III (1479-1425 BC) and Amenhotep II (1427-1401 BC), see *Lexicon der Ägyptologie*, s.v. *Sennefer*—a compound of *sn* “brother” (T22) with *nfr* “good, beautiful (F35)”.

### (3) Lebena, Tholos tomb I (Fig. 94)

Object: scarab of ivory or bone or white steatite.

Publications: Alexiou 1958: 7, Abb. 5; Platon 1969: 204, no. 180; Otto 1997: 158, Abb. 49; Karetsou & Andreadaki-Vlazaki 2000: 306, no. 301 (alternatively attributed to Tholos tomb A); Ben Tor 2006: 82, Fig. 1a, no. 2; Höflmayer 2007: 110, Abb. 2; Phillips 2008, II: 181-182 (material: white piece); 346, no. 366; van Binsbergen & Woudhuizen 2011: 328, 330, Fig. 27.4; Höflmayer 2012: 52-55, Abb. 7, 1.

Dating: early 12th dynasty (Ben Tor 2006: 78, note 52; Phillips 2008, II: 181-182 [found associated with MM IA amphoriskos]; Höflmayer 2007: 111 and 2012: 57 arguing against its attribution to the early 18th dynasty by Karetsou & Andreadaki-Vlazaki 2000: 306).

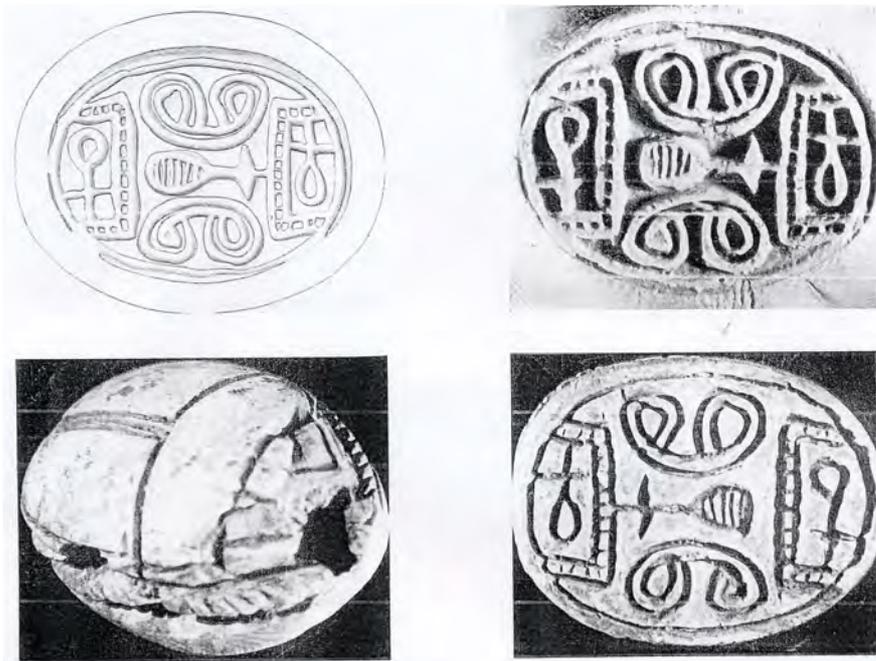


Fig. 94. CMS II, 1, no. 180 (from Platon 1969: 204).

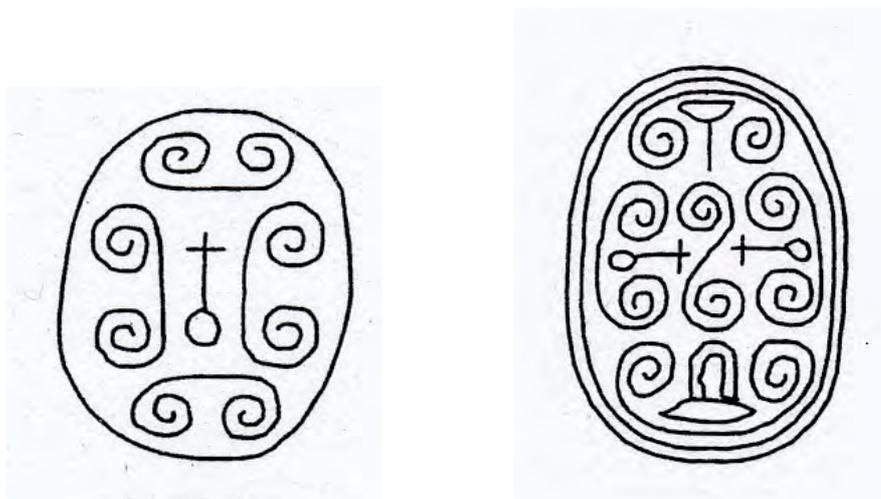


Fig. 95. Egyptian parallels from Kahun (Höflmayer 2012: Abb. 7, no. 2 and Abb. 43, no. 2).

## Legend

sign number	identification	value
1. F35	heart and windpipe	<i>nfr</i>
2. LH *415	—	<i>sa</i>
3. S34	sandal-strap	<i>nh</i>

Reading in sum: *nh, sa-nfr, nh* “life, Sennefer, life”, in which the personal name in the middle corresponds to Egyptian *sn-nfr-f-r* “Sennefer”.

In the present case, the recording of the name in an Egyptian text, *in casu*, as we have just noted, the exercise in writing names of the Keftiu on a writing board generally assigned to the early 18th dynasty, does not fall in the period of use of the tomb in like manner as this was the case with the country names. But the most recent dating in the light of the parallels assigns the scarab in question to the early 12th dynasty (see Ben Tor 2006: 78, note 52, Höflmayer 2007: 111, and Phillips 2008, II: 181 as referred to in the above) or even late 11th dynasty (see Höflmayer 2012: 55), which correlates perfectly with the latest material attested for Tholos tomb I at Lebena, viz. MM I pottery, which serves as a *terminus ante quem* (according to Phillips 2008, II: 182 it was actually found by Alexiou in association with a MM IA amphoriskos).

The use of the Luwian hieroglyphic sign \*415 *sa*, if rightly analyzed as such, would be highly indicative of the “Egyptianizing” or local Cretan nature of the present document. Note, however, in this context that in case of the Egyptian parallels we may be dealing with a dim reflection of the Minoan model in which the Luwian hieroglyphic sign \*415 *sa* (of what in reality happens to be the top side is more curved than in the case of its Egyptian equivalents) is indeed reduced to a decorative motif referred to as the C-spiral.

## 4. WISH-FORMULAS

In regard to our examples of Cretan scarabs with a legend containing a wish-formula, it deserves our attention that a number of Egyptian hieroglyphic signs in the examples from Poros (see Fig. 96) and Knossos (see Fig. 98) (Karetsou & Andreadaki-Vlazaki 2000: nos. 318 and 314), which both came to light in a settlement context instead of a funerary one (Höflmayer 2007: 107), have already been identified as such by Höflmayer and Phillips in their treatment of them, see Höflmayer 2007: 116 (cf. Höflmayer 2012: 118) and 120-

121 (cf. Höflmayer 2012: 110), respectively, and Phillips 2008, II: 236 and 113, respectively. So both Höflmayer and Phillips notify the presence of S34 *nh* in the top center and two instances of V30 *nb(t)*, which, by the way, appear to be associated here with Z1 to stress the phonetic use of the sign in question (Karetsou & Andreadaki-Vlazaki 2000: 315, no. 318 as well as Phillips 2008, II: 236 read the combination as *nb-ty*, with the, given the antithetic design to be expected, repeated instance of Z1 taken for Z4 expressing the phonetic value *y*, but a reference to the Egyptian royal title *nbtj* “Two-Ladies” seems unwarranted in the given context and would have been expected to be written by means of G16), placed antithetically in the lower section of the seal from Poros. In like manner, Höflmayer drew our attention to the presence of V29 *w3h* in the top center and an instance of F35 *nfr* flanked on either side by S34 *nh*, again, in the lower section of the seal from Knossos. For our understanding of the two legends in their totality it is of importance to realize that the combination of S29 *s* with M13 *w3d*, duly expressed by the fact that the signs are written in ligature, in the first case reads as a writing variant of *s-w3d* “bequeath” (Gardiner 1995, 480), and that the association of V29 *w3h* with M17 *i* (not the *m3* ‘*t*-sign H6 as Phillips 2008: 113 and Höflmayer 2012: 110 want to have it), which is followed by N16 *t3*, actually confronts us with *w3h-i(-t)*, a writing variant of *w3hyt* “increase, abundance” (Gardiner 1994: 559). The final example from Nipiditos (see Fig. 100) (Karetsou & Andreadaki-Vlazaki 2000: no. 322; Phillips 2008: 207-208; 353, no. 418) may be a little later in date than the rest of our set, and is presented here in order to stress the fact that wish-formulas are indeed traceable for legends on Egyptian scarabs in general and Cretan examples in particular.

#### (4) Poros, settlement context (Fig. 96)

Object: scarab of faience.

Publications: Karetsou & Andreadaki-Vlazaki 2000: 315, no. 318; Ben Tor 2006: 83, Fig. 1b, no. 9; Höflmayer 2007: 116, Abb. 7; Phillips 2008, II (material: white piece?): 236-237; 362, no. 483; Höflmayer 2012: 118-119, Abb. 44, 1.

Dating: late 11th or early 12th dynasty (Höflmayer 2007: 116; Phillips 2008, II: 236) or early 12th dynasty, 19th century BC (Karetsou & Andreadaki-Vlazaki 2000: 315). The find-context of the scarab was characterized by MM IB pottery.

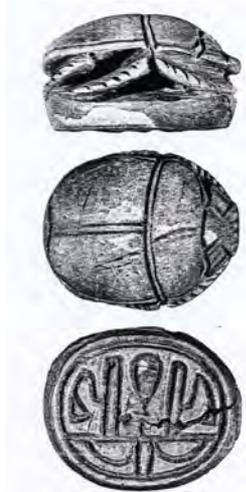
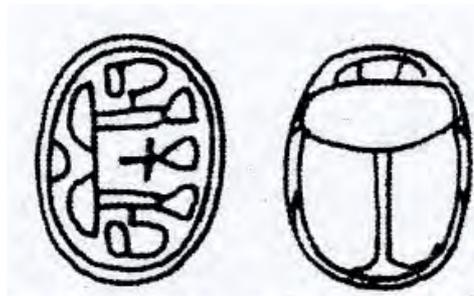
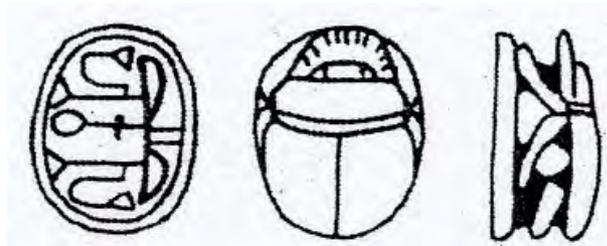


Fig. 96. Karetsou & Andreadaki-Vlazaki 2000: no. 318.



a. Qau



b. Egyptian Museum at Cairo

Fig. 97. Egyptian parallels from (a) Qau (Höflmayer 2012: Abb. 44, no. 2) and (b) the Egyptian Museum at Cairo (Höflmayer 2012: Abb. 44, no. 3).

## Legend

sign number	identification	value
1. S34	sandal-strap	<i>nh</i>
2. S29	folded cloth	<i>s</i>
3. M13	stem of papyrus	<i>wʒd</i>
4. V30	wickerwork basket	<i>nb(t)</i>
5. Z1	determinative stressing the phonetic use of the sign with which it is associated	

Reading in sum: *nh s-wʒd nb* “life (being) bequeath(ed to) all”.

The closest Egyptian parallels for the legend of this Cretan seal are from Qau and the Egyptian Museum at Cairo (see Fig. 97).

Note that in the last mentioned case the sign S29 for *s* is replaced by O30 *shnt*, which, just like M13 *wʒd* in the legend of the scarab from Mostegga, must be used here, in contradistinction to its normal use, for the rendering of the acrophonic value *s*. It is interesting to note in this connection, therefore, that a reflex of Egyptian hieroglyphic O30 has indeed been incorporated in the local Cretan hieroglyphic script (E60 or CHIC019) and the latter’s successor Linear A (L31) for the expression of the syllabic value *sa* (see Figs. 26-27 above).

The legends of the given Egyptian parallels are so close to that of the Cretan seal that the latter may reasonably explained in terms of an Egyptian importation.

#### (5) Knossos, settlement context (Fig. 98)

Object: scarab of white steatite, pierced lengthwise according to Höflmayer 2007: 121.

Publications: Karetsou & Andreadaki-Vlazaki 2000: 313, no. 314; Höflmayer 2007: 120, Abb 11; Phillips 2008, II: 113; 326, no. 197 (material: unidentified); Höflmayer 2012: 109, Abb. 39, no. 1.

Dating: Middle Kingdom, providing a *terminus post quem* for its MM IIA context (Ben Tor 2006: 81), late 12th or early 13th dynasty (Höflmayer 2007: 121, who adds that this scarab may well date the end of MM IIA and dissociates himself from the somewhat later dating to the 13th up to 15th dynasty or 1759-1522 BC by Karetsou & Andreadaki-Vlazaki 2000: 313; so also Höflmayer 2012: 108-110; cf. Phillips 2008, II: 113).

## Legend

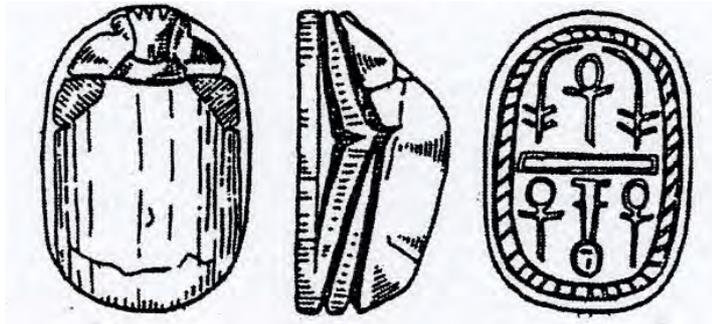
sign number	identification	value
1. V29	swab made from a hank of fibre	<i>wʒḥ</i>
2. M17	flowering reed	<i>i</i>
3. N16	flat alluvial land	<i>tʒ</i>
4. F35	heart and windpipe	<i>nfr</i>
5. S34	sandal-strap	<i>ḥnh</i>

Reading in sum: *wʒḥ-i(-t) tʒ, nfr ḥnh* “abundance of land, good life”. I can only imagine that this appears to be a wish-formula appropriate for a colonial settler in Knossos of Egyptian background.

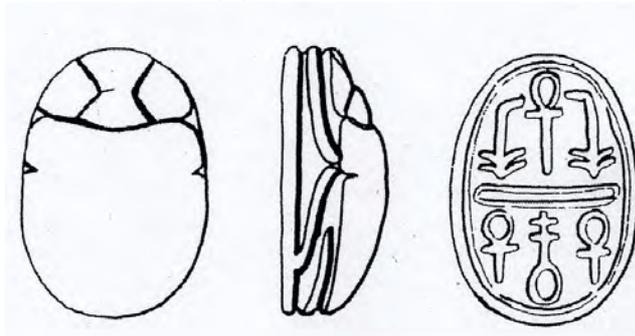
Whatever one may be apt to think of this suggestion, it so happens that the nearest Egyptian parallels from Tell el-Dabʿa and Tell el-ʿAjjul (see Fig. 99) only reproduce the lower section of the legend of the seal from Knossos. Hence it cannot be excluded out of hand that the design in its entirety is indicative of local manufacture.



Fig. 98. Karetsov & Andreadaki-Vlazaki 2000: no. 314.



(a) Tell el-Dabʿa



(b) Tell el ʿAjjul

Fig. 99. Nearest Egyptian parallels from (a) Tell el-Dabʿa (Höflmayer 2012: Abb 39, no. 5) and (b) Tell el ʿAjjul (Höflmayer 2012: Abb. 39, no. 4).

#### (6) Nipiditos, settlement context (Fig. 100)

Object: scarab of white steatite.

Publications: Karetsou & Andreadaki-Vlazaki 2000: 317, no. 322; Phillips 2008, II: 207-208; 353, no. 418.

Dating: late 12th dynasty or mid 13th dynasty (Phillips 2008, II: 207); late 13th dynasty, 1700-1650 BC (Karetsou & Andreadaki-Vlazaki 2000: 317). The scarab is not found in a datable context.

#### Legend

sign number	identification	value
1. V16	looped cord	sʿ

2.	S34	sandal-strap	<i>nh</i>
3.	F35	heart and windpipe	<i>nfr</i>
4.	R11	<i>djed</i> -column	<i>dd</i>

All the individual signs have been identified already by Phillips 2008, II: 207.

Reading in sum: *s3 nh dd*, *nh nfr*, *nh dd* “junior functionary: life-stability, good life, life-stability”. For the interpretation of *s3* as a reference to a junior functionary (literally: “son of a man”), compare the use of the homophonous pintail duck, G39.

Notwithstanding that to the best of my knowledge an exact Egyptian parallel is lacking, this particular scarab is most likely to come into consideration as a genuine Egyptian import. Whatever the extent of this suggestion, its legend bears testimony of two signs which thus far we did not come across in the Cretan environment, namely the looped cord, V16, and the *djed*-column, R11.



Fig. 100. Karetsou & Andreadaki-Vlazaki 2000: no. 322.

## 5. CONCLUSIONS

In the preceding discussion of the Egyptian hieroglyphic legend of a selection of six Cretan scarabs, among which one scaraboid, dating

from the Pre- and Protopalatial period we were able to distinguish three different categories of information, namely: 1. country names, 2. personal names, and 3. wish-formulas. For the evaluation of the given readings, it is important to notice that, in the present state of the evidence:

- (1) the legend of scarab no. 95 from Tholos tomb A at Hagia Triada, reading *ḥ3-w-nbt*, corresponding to the geographic name *Ḥ3w-nbwt*, lacks an exact parallel in the Egyptian repertory;
- (2) of the legend of no. 314 from Knossos, which is inscribed with a wish-formula, only the lower section can be shown to be present among the relevant Egyptian parallels;
- (3) the legend of the scarab no. 180 from Tholos tomb I at Lebena, which to all probability bears testimony of a personal name, *sa-nfr* “Sennefer”, in this manner confronts us alongside the 14 individual Egyptian hieroglyphic signs which we came across with a sign from an altogether different script, namely Luwian hieroglyphic \*415 *sa*.

From these observations, the following conclusions may, notwithstanding Phillips’ claim to the contrary,<sup>4</sup> reasonably be drawn:

- (a) the readings of the legends of scarab no. 201 from Tholos tomb II at Lebena and no. 95 from Tholos tomb A at Hagia Triada as the geographic names *W3d-wr* “Great Green” and *Ḥ3w-nbwt*, which in the Egyptian sources refer to foreign countries likely to be situated in the Aegean region, strongly indicate that there were persons in Pre- and Protopalatial Crete which could read Egyptian hieroglyphic;
- (b) the fact that the legend of scarab no. 95 lacks an exact parallel in the Egyptian repertory and that of the one of scarab no. 314 only the lower section is traceable among the relevant comparisons might reasonably be argued to indicate that there were persons in Pre- and Protopalatial Crete who mastered the Egyptian hieroglyphic script to the extent that they could write a message in it;
- (c) the reading of the legend of scarab no. 180 as the personal name *sa-nfr* “Sennefer” seems to allow for the conclusion that during the Pre- and Protopalatial period local Cretan scribes, who could read and write in Egyptian hieroglyphic, were on the verge of developing their own writing system, Cretan hieroglyphic, in which signs from Egyptian hieroglyphic were used in combination with those from Luwian hieroglyphic.

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<sup>4</sup> Phillips 2008, I: 134 “The vast majority, if not all, Minoans would not have been literate in Egyptian hieroglyphs, so these texts [i.e. the hieroglyphic legends of the scarabs] (...) would mean nothing to them as *texts*”.

As a matter of fact, the signary of this local Cretan hieroglyphic can be positively shown to be mainly composed of signs originating from Luwian hieroglyphic, which provided the model for as much as 85 signs (see section I.1.2 and Fig. 25 above), whereas Egyptian hieroglyphic supplemented this core part by providing the model for 22 signs only, which is about 25% of the total repertory (see section I.1.1 and esp. Fig. 26 above).

For comparative purposes, finally, it may be worthwhile to draw attention to the development of the Byblian script. This took place during the latter stage of the Middle Bronze Age, from *c.* 1730 BC onwards, when regular contacts between Egypt and Byblos were interrupted as a result of destructive invasions by Indo-European chariot fighters, which ultimately culminated in the Hyksos takeover in Egypt. At that point in time, then, a local variant of Egyptian hieroglyphic or “provincial style” was developed by the Byblian scribes, which is characterized by linearization (Woudhuizen 2007: 697; 750-751, Fig. 9; 754, Fig. 12) and ultimately incited the creation of the local Byblian “pseudo-hieroglyphic” script and the related Cretan Linear A (Woudhuizen 2007: 709-710; 752-753, Fig. 10; cf. section II.2 and Fig. 64 above).

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