

MINOAN LINEAR A

VOLUME I

HURRIANS AND HURRIAN IN MINOAN CRETE

PART 1: TEXT

*To Jan M. Veldhuizen-van Soesbergen
and to the memory of
Anna M. van Soesbergen-Jurriaans
and Petrus J. van Soesbergen*

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**THE ONOMASTICS OF THE ‘MINOAN LINEAR A’
AND ‘LINEAR B’ DOCUMENTS AND THEIR
HISTORICAL SIGNIFICANCE**

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**MINOAN LINEAR A - VOLUME I:
HURRIANS AND HURRIAN IN MINOAN CRETE
PART 1: TEXT**

by

Peter George van Soesbergen

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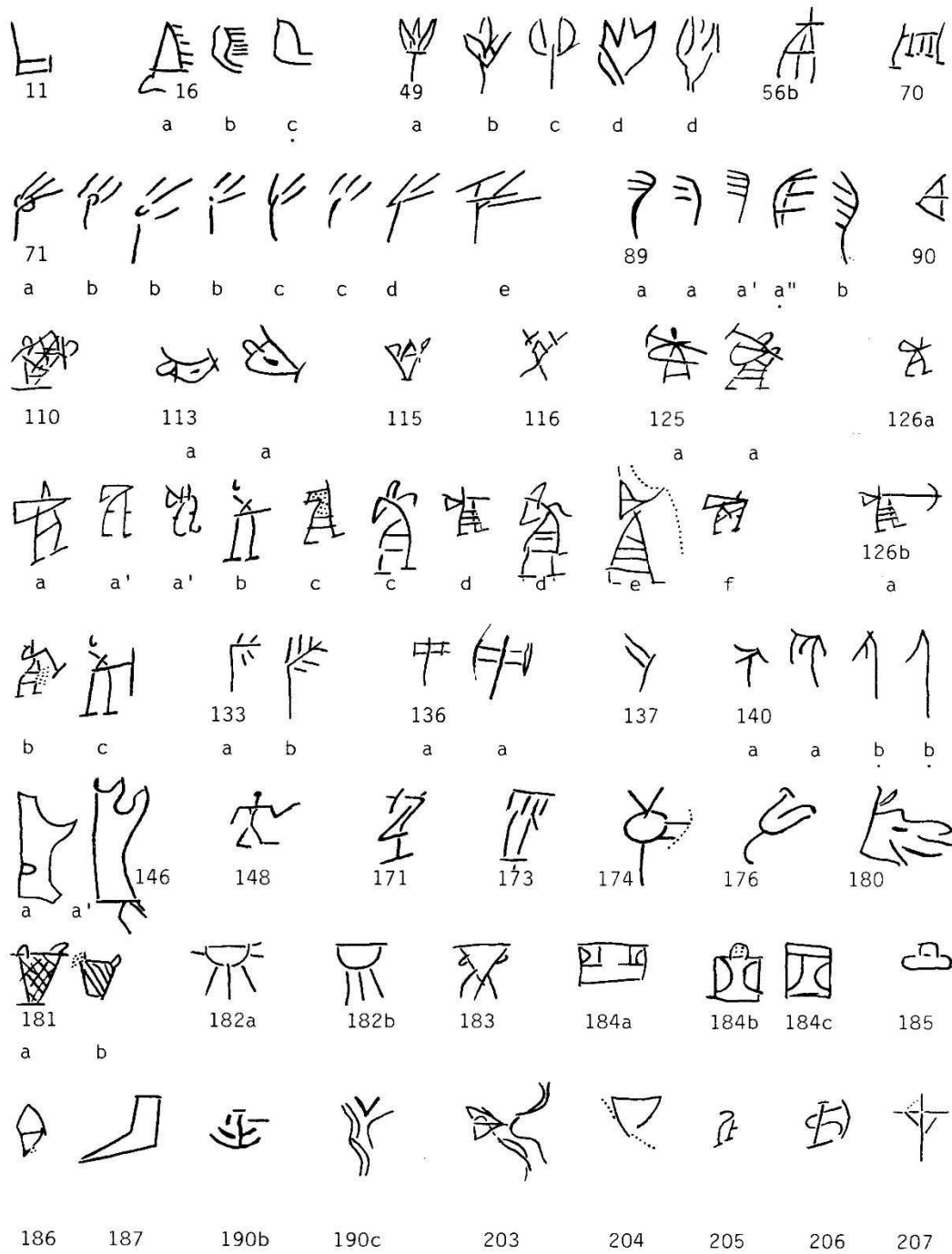
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THE MAIN LINEAR A PHONETIC SIGNS (ARRANGED
ACCORDING TO THE LINEAR B SYLLABARY)

	<i>a</i>	<i>e</i>	<i>i</i>	<i>o</i>	<i>u</i>
					
<i>d-</i>					
<i>j-</i>					
<i>k-</i>					
<i>m-</i>					
<i>n-</i>					
<i>p-</i>					
<i>q-</i>					
<i>r-</i>					
<i>s-</i>					
<i>t-</i>					
<i>w-</i>					
<i>z-</i>					

LINEAR A IDEOGRAMS



After J. Raison - M. Pope, *Index transnuméré du Lineaire A* (BCILL 11), Louvain 1977, 54: Signes du deuxième groupe.

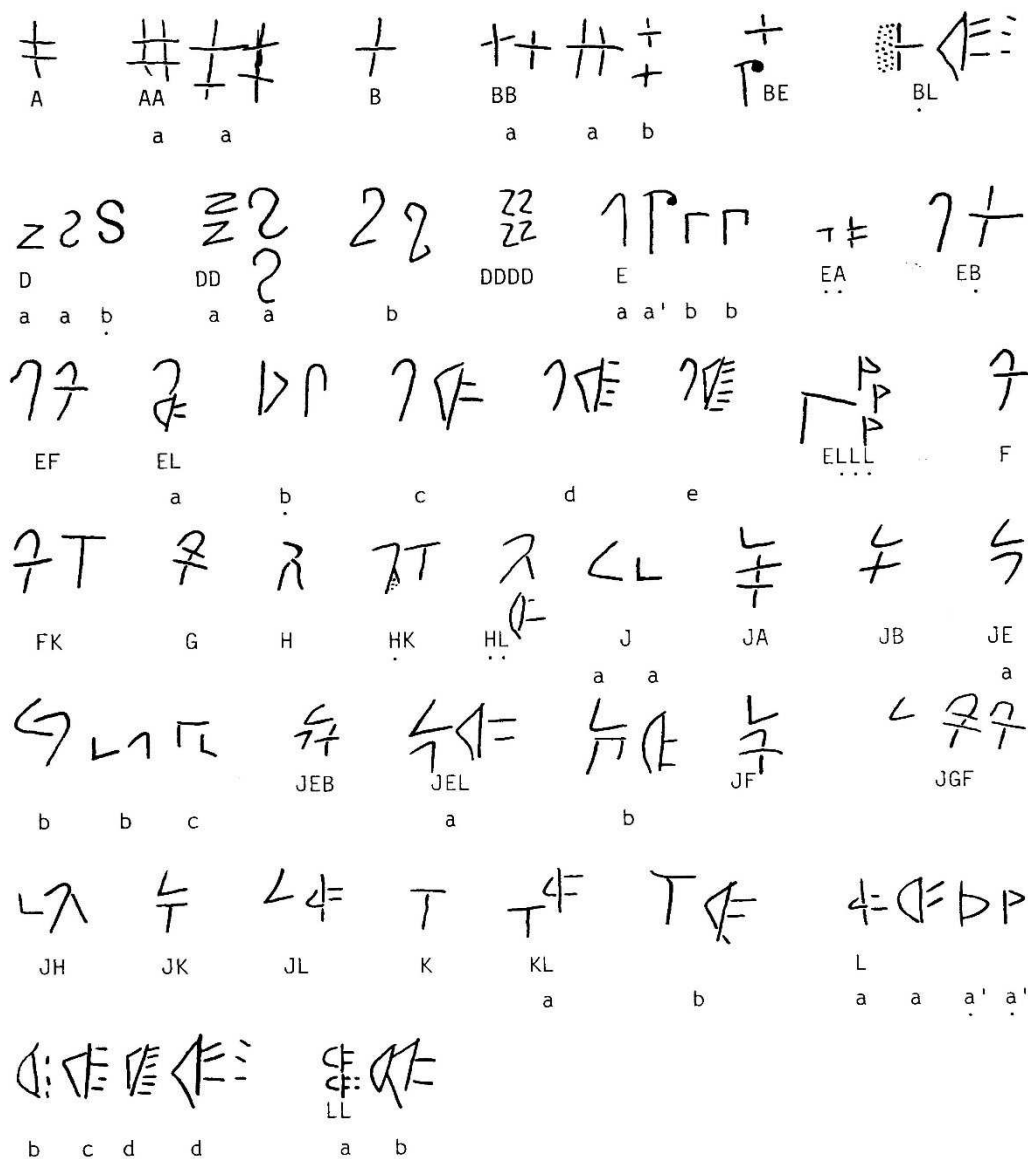
J. Raison - M. Pope (*Index transnuméré du Lineaire A*, BCILL 11, Louvain 1977, 48-53) provide sub 'Signes du premier groupe' the whole range of primarily syllabic signs and their variants. Some of these signs (e.g. 8, 35, 42, 82a, 82b, 85, 87) are probably ideograms and some might be both syllabogram and ideogram, e.g. 27, 29, 48b, 60, 66, 99, 103. Sign 29 is usually the syllabic sign *ka*, but in solitary position it probably indicates the ideogram ROTA 'wheel', and in combination with the ideogram VIR it may well indicate a round shield (PARMA), so that the whole combination could represent a VIR PARMATUS, 'man armed with a round shield'.

Sub 'Signes du troisième groupe' J. Raison - M. Pope (*ibidem*, 55-57) provide the 'ligature signs'. Some of these consist of ideograms with additions of syllabograms indicating varieties of the commodities in question, e.g. 501, 503, 512, 513, 515, 516, 517, 518, 521, 522, 524, 525, 528, etc.

Others consist of ideograms with additions of signs indicating dry measures: sign 502, for instance, shows the GRA(num) ideogram with the addition of double Linear A signs 'L', which probably is equivalent to Linear B sign V, possibly the classical $\chi\omicron\tilde{\nu}\iota\zeta$, whereas sign 504 shows the GRA(num) ideogram with the addition of a single Linear A sign 'L'. Sign 511 shows the GRA(num) ideogram with the addition of a single Linear A sign 'L' and a single Linear A sign 'K', which probably is equivalent to Linear B sign T. From Linear B we know that the smallest dry and liquid measures are the signs Z (probably the $\kappa\omicron\tau\acute{\upsilon}\lambda\eta$) and V (the $\chi\omicron\tilde{\nu}\iota\zeta$). In Linear B the dry measures have the following values: $Z \times 4 = V$; $V \times 6 = T$; $T \times 10 = \text{GRA}$. According to J. Chadwick the wheat ideogram may indicate the highest unit of the dry measures, representing the maximum load an average man could carry. He also considers the wine ideogram the highest unit of the liquid measures, again representing the maximum load an average man could carry (cf. J. Chadwick, *Reading the past, Linear B and related scripts*, British Museum Publications, London 1987, 32). There is no reason to assume that the values of the Linear A measures differed very much from those in Linear B.

Other 'ligature signs' may be a combination of two ideograms. Sign 536 is probably a combination of sign 35 (CAPSUS of a chariot) and 87 (framework of a chariot). Sign 672 may be sign 87 combined with the sign of another part of the chariot.

LINEAR A SIGNS INDICATING FRACTIONS, WEIGHTS, MEASURES



After J. Raison - M. Pope, *Index transnuméré du Lineaire A* (BCILL 11), Louvain 1977, 58: Signes du quatrième groupe.

LINEAR A SYLLABIC SIGNS RESEMBLING LINEAR B SIGNS (ACCORDING TO J. RAISON - M. POPE)

30	22	2	92	39	26	51	52	77	97	21	7	84a
da	ro	pa	te	to	na	di	a	se	u	po	so	me
101	(71/89)	62	23				10	48b (140,178)	27	84b		
do/79	mo	qa	za	18	19		zo	qi	22	mu		
61		55	54	100a	100a'			34	60	31		
ne	a ₂	ru	re	i	i			pu ₂	ni	sa	qo	
69		88	78	44	56a	28	57	99				
ra ₃	34	35	jo	ti	e	pi	wi	si	wo	ai		
24	102a	81a	102b	114	120	64	93	100b	100b'			
ke	de	je	47	nwa	49	pu	du	no	no			
72	75a	25	1	32	59	74	53	80				
ri	wa	nu	56	ja	su	ta	ra	o	pte	63		
43	96	86	103	6	45			76	(16)	94		
64	65	ta ₂	ki	ro ₂	tu	ko	dwe	pe	mi	ze	we	
58	29	91	Cf.101	95	98	208	(113)	35	66			
ra ₂	ka	qe	79	ma	ku	82	83	au	86	twe	dwo	two

After J. Raison - M. Pope, *Index transnuméré du Lineaire A* (BCILL 11), Louvain 1977, 60: Ressemblances A – B.

LINEAR A IDEOGRAMS, IDEOGRAMS WITH ADDED
VALUES, SIGNS FOR MEASURES AND WEIGHTS
RESEMBLING LINEAR B SIGNS

60	16	44		99	126	126	
FIC/ni	ZE	134		VIR and VIR	ARMATUS		
48b	633	597	140	627	626	113	27 etc
OVIS	OVIS _f	OVIS _m	CAP	CAP _f	CAP _m	SUS	BOS
42	60	49	116	82a	82b	184	
GRA	FIC	OLIVA	ARB	VIN _a	VIN _b	*164	
8	185	541	542	146	531	87	
AES	*158	TELA+ku	TELA+zo	*180	*161	*189	
545	564	565	544	571	103	543	630
TRIPUS	*202	*203	*212	*216	*218	*219	*227
L	K			AA	DD	85	
V	T			N	M	L=TALENTUM	

This chart is partly after J. Raison - M. Pope, *Index transnuméré du Lineaire A* (BCILL 11), Louvain 1977, 61: Ressemblances A – B. I have, however, rearranged the order in such a way that the ideograms of domestic animals, those of agricultural commodities, those of other commodities, those of various vases, and the signs for measures and weights are put together in their own groups. In my view sign 126 is not the ideogram MUL(ier) ‘woman’, but VIR ARMATUS ‘armed man’. Especially the second example of sign 126 shows close resemblance to both Linear B sign *100 = VIR and Linear B signs *162 and *163 = LORICA ‘a leather cuirass or corselet’. Linear A sign 116 ARB(OR) may be the ideogram of AURUM (B *141).

LINEAR A COMPARED WITH HIEROGLYPHIC AND LINEAR B COGNATES (AFTER G.P. CARRATELLI)

H	A	B	H	A	B	H	A	B
	L 1 AB 18			L 44 AB 11			L 76 AB 40	
	L 2 AB 4			L 47 A 103			L 78 AB 10	
	L 6 AB 44			L 51 AB 59			L 81 AB 45	
	L 9; cf. 28 AB 12			L 53 AB 51			L 83 AB 62	
	L 10 AB 9			L 55 AB 32			L 85 AB 63	
	L 15 A 75			L 57 AB 30			L 87 A 53	
	L 16 AB 54			L 59 AB 13			L 91 AB 24	
	L 21			L 61 AB 33			L 93/17 AB 56	
	L 22 AB 2			L 63 A 72			L 95 A 40	
	L 23 AB 57			L 65 A 81			L 98 AB 41	
	L 24			L 68/96 A 61			L 100/38 AB 37	
	L 25/7 AB 19			L 72; cf. 94 AB 25			L 102 AB 48	
	L 26 AB 58			L 75 AB 21			L 120 A 116	

From M. Ventris and J. Chadwick, *Documents in Mycenaean Greek*, Cambridge 1956, 1973², 33, Fig. 6. The Linear A syllabary in use at Agia Triada (after Carratelli), with possible cognates in the 'hieroglyphs' (H) and in Linear B (B).

LINEAR A COMPARED WITH HIEROGLYPHIC AND LINEAR B COGNATES (AFTER A. FURUMARK)

	H	A	B		H	A	B
1 a	H36	L52	B8	20 m1	H8	L76	B73
2 a ₂		L57		21 mu	H62	L27,104	B23
3 da	H101	L30	B1	22 na		L26	B6
4 da ₂	H86	L93	B51	23 ne	H40	L67,14	B24
5 de		L102	B45	24 n1	H103	L60,116,130	B30
6 d1		L51	B7	25 no	H9,10	L12,38,100,131	B52
7 do	H5	L101	B14	26 nu		L25	B55
8 e	H99	L44	B38	27 o		L80,87d	B61
9 ja	H44	L32	B57	28 pa		L2	B3
10 ja ₂		L85	B118	29 pa ₂	H54	L62	B16
11 je?		L81	B46	30 pa ₃	H46,45	L1	B56
12 jo	H70,73	L109,111	B36	31 pe?		L63	
13 ka	H107	L29	B77	32 pi	H	L9,28,41,56	B39
14 ke	H85	L24	B44	33 po	H21	L15,21,88	B11
15 ki		L103	B67	34 pu	H(137)	L64	B50
16 ko	H14	L45	B70	35 pu ₂	H29	L34	B29
17 ku		L98	B81	36 qe	HK52,53	L91	B78
18 ma	H74,75	L95	B80	37 ra	H16	L53	B60
19 me	H28	L46,84,Lc20	B13	38 ra ₂	H115	L58	B76

From: A. Furumark, 'The Linear A tablets from Hagia Triada, structure and function', *Opuscula Romana XI: 1 (Lectiones Boëthianae III)*, Skrifter Utgivna av Svenska Institutet i Rom, 4^o, 35:1, Stockholm 1976, 12, Fig. 6. Linear A phonetic signs (1). N.B. pa₂ = qa.

LINEAR A COMPARED WITH HIEROGLYPHIC AND LINEAR B COGNATES (AFTER A. FURUMARK)

	H	A	B		H	A	B
39 re	H92	L54	B27	58 wi		L79,48	B40
40 ri		L72,94b	B53	59 za		L23	B17
41 ro	H112	L22	B2	60 zo	H15	L36	B20
42 ru	H30	L55	B26	61		L43	B64
43 sa	H60	L31	B31	62		L65	B123
44 se	H88	L77	B9	63		L114	
45 si	H11	L68,96,Lc78		64		L120	
46 so	H12	L7	B12	65 MINA	H111	L69	B34
47 su	H(Ma)	L59	B58	66 WIN-O/A	H116	L82	B131
48 ta	H37,129	L74	B59				
49 ta ₂		L86	B66				
50 te	H97	L50,92	B4				
51 te ₂ ?	H65	L83					
52 ti	H13	L20,78	B37				
53 to	H38	L33,39	B5				
54 tu		L6	B69				
55 u	H27	L97	B10				
56 wa	H41	L75	B54				
57 we	H84	L94	B75				

From: A. Furumark, 'The Linear A tablets from Hagia Triada, structure and function', *Opuscula Romana XI: 1 (Lectiones Boëthianae III)*, *Skrifter Utgivna av Svenska Institutet i Rom*, 4^o, 35:1, Stockholm 1976, 13, Fig. 7. Linear A phonetic signs (2).

THE LINEAR B SYLLABARY

𐀀	a	𐀁	e	𐀂	i	𐀃	o	𐀄	u
𐀅	da	𐀆	de	𐀇	di	𐀈	do	𐀉	du
𐀊	ja	𐀋	je			𐀌	jo	𐀍	ju
𐀎	ka	𐀏	ke	𐀐	ki	𐀑	ko	𐀒	ku
𐀓	ma	𐀔	me	𐀕	mi	𐀖	mo	𐀗	mu
𐀘	na	𐀙	ne	𐀚	ni	𐀛	no	𐀜	nu
𐀝	pa	𐀞	pe	𐀟	pi	𐀠	po	𐀡	pu
𐀢	qa	𐀣	qe	𐀤	qi	𐀥	qo		
𐀦	ra	𐀧	re	𐀨	ri	𐀩	ro	𐀪	ru
𐀫	sa	𐀬	se	𐀭	si	𐀮	so	𐀯	su
𐀰	ta	𐀱	te	𐀲	ti	𐀳	to	𐀴	tu
𐀵	wa	𐀶	we	𐀷	wi	𐀸	wo		
𐀹	za	𐀺	ze			𐀻	zo		

After J. Chadwick, *Reading the past, Linear B and related scripts*, British Museum Publications, London 1987, fig. 7. The basic Linear B syllabary.

THE LINEAR B IDEOGRAMS (AFTER E.L. BENNETT)

K P M				K P M			
People and animals				By dry measure			
100 A-				MAN	118		TALENT
101 A-				MAN ^c	*72 G-		Bunch?
102 A-				WOMAN	*74 S-		Pair
103 B				MAN ^b	*15 S-		Single
104 Cn				DEER	*61		Deficit
105 Ca S-				HORSE			
105 ^a Ca				HE-ASS	120 E- F-		WHEAT
105 ^c Ca				FOAL	121 F-		BARLEY
106 ^a C- D-				RAM	122 F- U-		OLIVES
106 ^b C- D-				EWES	F		OLIVES+A
Cn				SHEEP+TA	F		OLIVES+TI
*21				SHEEP	*30 F-		FIGS
*75				Kind of sheep	*65 F-		FLOUR
107 ^a C-				HE-GOAT	123 G- Un		CONDIMENT
107 ^b C- Mc				SHE-GOAT	G-		Coriander
*22				GOAT	*70 G-		Coriander
108 ^a C-				BOAR	*31 G-		Sesame
108 ^b C-				SOW	*81 G-		Cumin
				PIG+SI	*9 G-		Celery
				PIG+KA	*80 G-		Fennel
*85 C-				PIG	124 G-		Cyperus
109 ^a C-				OX/BULL	125 F-		Cyperus?
109 ^b C-				COW	126 F-		Cyperus?
C-				OX+SI	*34		Month's ration?
*23 C-				OX	127 Un		Fruit?
Units of measurement				By liquid measure			
110				Volume	130 F-		OLIVE OIL
111				Volume	G		OIL+A
112				Dry	131 Fs U-		WINE
113				Liquid			?
114				Weight	132 Un		Unguent?
*21				Weight	133 Un		?
*2				Weight	134 Un		HONEY
115				Weight	135 Fs Gg		Amphora of honey
116				Weight	Gg		Honey?
117				Weight	*13 Un		

















From: M. Ventris - J. Chadwick, *Documents in Mycenaean Greek*, Cambridge 1956, 1973², 50, Fig.10. The Mycenaean ideograms (after Bennett), with their most usual tablet contexts and suggested meanings. (1)

THE LINEAR B IDEOGRAMS (AFTER E.L. BENNETT)

K P M			K P M			
By weight						
140	J-			166	Oa	Silver ingot?
141	Kn			167	Oa	INGOT
142	Mc			168	Pp	Adze?
*53	Ma			169	Pa	?
*44	Ma			170	Ch	?
*61	Ma			171	G Sn	?
*33	Np			172	U	Beeswax?
143	La			173	Mn U	?
By weight or in units						
*31	N-			174	Gv	Seedling?
145	L- O-			175	Gv	FIG TREE
146	M-			176	Gv	OLIVE TREE
Counted in units						
150	Mc			177	U	?
151	Mc			178	U	?
152	M-			179	U	?
153	Un			180	U	?
154	On			181	U	Thong?
155	G-			182	U	?
156	Un			183	U	?
157	Un			184	U	?
158	Ld			185	Ws	?
159	L-			186	Wa	?
	L-			187	Xa	cf. 130?
	L-			188		?
	L			Vessels		
	L			200-213 See Chapter 10, fig. 16		
	L			Furniture		
160	La			220	Ta	FOOTSTOOL
161	L-			Weapons		
162	Sc			230	R	SPEAR
	Sc			231	R	ARROW
	L			232	Ta	?
	L			233	Ra	SWORD
163	Sh			Chariots		
164	L			240	Sc	WHEELED CHARIOT
165	Sc			241	Sd Se	WHEEL-LESS CHARIOT
				242	Sf Sg	CHARIOT FRAME
				243	Sa So	WHEEL
					Sa	WHEEL+TE

From: M. Ventris - J. Chadwick, *Documents in Mycenaean Greek*, Cambridge 1956, 1973², 51, Fig.10. The Mycenaean ideograms (after Bennett), with their most usual tablet contexts and suggested meanings. (2)

LINEAR B SIGNS WITH SPECIAL PHONETIC VALUES









	a_2		a_3		au
	dwe		dwo		
	nwa				
	$pa_3?$		pu_2		pte
	ra_2		ra_3		ro_2
	$swa?$		$swi?$		
	ta_2		two		

After J. Chadwick, *Reading the past, Linear B and related scripts*, British Museum Publications, London 1987, fig. 8. The optional signs of Linear B.

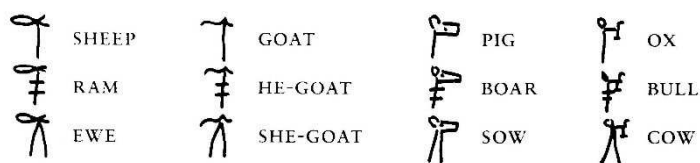
Linear B sign *87 = *twe* (?) may be added and possibly be compared with Linear A sign 66. J. Chadwick's identification of Linear B sign *64 as *swi* is almost certain. Since Linear A sign 43 is very similar to Linear B *64, it may well have the same phonetic value.

F.M.J. Waanders's view that the phonetic value of Linear B pa_3 and pu_2 may have been derived from the Linear A aspirated voiced labials *bha* and *bhu*, respectively, is attractive, because the Linear A special signs 1 = pa_3 and 34 = pu_2 would in that case each designate only one phonetic value instead of two (*pha/ba* and *phu/bu*), but could at the same time be the source of both *pha*, *ba* and *phu*, *bu*.

LINEAR B IDEOGRAMS

	CLOTH		WOOL
	WHEAT		BARLEY
	WINE		OLIVE OIL
	BRONZE		GOLD

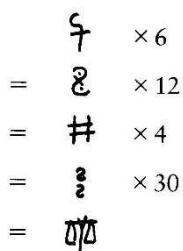
After J. Chadwick, *Reading the past, Linear B and related scripts*, British Museum Publications, London 1987, fig. 10. Some Linear B ideograms for commodities.



After J. Chadwick, *Reading the past, Linear B and related scripts*, British Museum Publications, London 1987, fig. 11. Linear B ideograms for domestic animals.

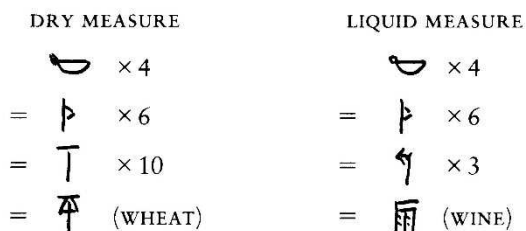


After J. Chadwick, *Reading the past, Linear B and related scripts*, British Museum Publications, London 1987, fig. 12. Linear B syllabic signs also used as ideograms.



After J. Chadwick, *Reading the past, Linear B and related scripts*, British Museum Publications, London 1987, fig. 15. The Linear B system of weights.

J. Chadwick explains that the *talent* (about 30 kg.) was divided into sixty *minas*, so that the second largest unit, which has a double sign, was almost certainly a double-*mina* (about 1 kg.).



After J. Chadwick, *Reading the past, Linear B and related scripts*, British Museum Publications, London 1987, fig. 16. The volumetric systems of Linear B.

LINEAR A



LINEAR B



After J. Chadwick, *Reading the past, Linear B and related scripts*, British Museum Publications, London 1987, fig. 14. The signs for 'wool' in Linear A and B.

The Linear A sign is a ligature of *ma+ru*, the Linear B sign of *ma+ro*.

CYPRIOT		A	B	
†	lo	†	†	ro/lo
𐀀	na	𐀀	𐀀	na
𐀁	pa	𐀁	𐀁	pa
𐀂	po	𐀂	𐀂	po
𐀃	sa	𐀃	𐀃	sa
𐀄	se	𐀄	𐀄	se
𐀅	ta	𐀅	𐀅	da
𐀆	to	𐀆	𐀆	to

After J. Chadwick, *Reading the past, Linear B and related scripts*, British Museum Publications, London 1987, fig. 33. A comparison of classical Cypriot signs with Linear A and Linear B.

THE CLASSICAL CYPRIOTE SYLLABARY

✱	<i>a</i>	✱	<i>e</i>	✱	<i>i</i>	≧	<i>o</i>	Υ	<i>u</i>
∪	<i>ja</i>					≡	<i>jo</i>		
↑	<i>ka</i>	✱	<i>ke</i>	Υ	<i>ki</i>	∩	<i>ko</i>	✱	<i>ku</i>
Υ	<i>la</i>	8	<i>le</i>	≤	<i>li</i>	+	<i>lo</i>	∪	<i>lu</i>
✱	<i>ma</i>	✱	<i>me</i>	≡	<i>mi</i>	⊖	<i>mo</i>	✱	<i>mu</i>
⊥	<i>na</i>	∪	<i>ne</i>	≡	<i>ni</i>	∩	<i>no</i>	∪	<i>nu</i>
⊥	<i>pa</i>	∪	<i>pe</i>	≡	<i>pi</i>	∪	<i>po</i>	≡	<i>pu</i>
∪	<i>ra</i>	∪	<i>re</i>	∪	<i>ri</i>	∪	<i>ro</i>	∪	<i>ru</i>
∪	<i>sa</i>	∪	<i>se</i>	∪	<i>si</i>	≧	<i>so</i>	∪	<i>su</i>
⊥	<i>ta</i>	∪	<i>te</i>	↑	<i>ti</i>	⊥	<i>to</i>	∪	<i>tu</i>
∪	<i>wa</i>	∪	<i>we</i>	∪	<i>wi</i>	∪	<i>wo</i>		
∪	<i>xa</i>	∪	<i>xe</i>			∪	<i>zo</i>		
∪	<i>ga</i>								

After J. Chadwick, *Reading the past, Linear B and related scripts*, British Museum Publications, London 1987, fig. 34. The Cypriot syllabary; the values *xa*, *xe* and *zo* are not entirely certain; *ga* is only used at certain sites.

PREFACE AND ACKNOWLEDGEMENTS

I began my studies in Mycenaean philology and Greek linguistics as part of my Classical studies as a student of Professor C.J. Ruijgh in the University of Amsterdam and gained the first degree of that University by taking the doctoral examination in 1976. Subsequently the University of Amsterdam and the Netherlands Organisation for the advancement of pure research (Z.W.O.) enabled me to pursue research on the archaeological context of Minoan Linear A and to complete a report on Linear A finds from 34 archaeological sites in Crete (cf. the bibliography). This work was part of a larger project in which three other scholars participated, Drs. L.C. Meijer, who analysed the structure of the Linear A texts from Hagia Triada, Drs. J.W. Jong, who concentrated his research on the archaeological context of the Linear A finds from Hagia Triada, and Drs. N.M.W. de Vries who studied the French excavations of the palace of Mallia. Supervisor of the project was Dr. J.G.P. Best.

In October 1978 I was appointed to a Leverhulme European Visiting Fellowship in the Departments of Ancient History and Classical Archaeology and of Greek at the University of Sheffield, on the recommendation of Professor R.A. Crossland and Professor D.J. Mosley. I then applied for registration as a candidate for the degree of Ph.D. of the University, with Professor Crossland as my adviser, since the University had kindly given me the status of Independent Research Worker. I registered as my subject *The onomastics of the 'Minoan Linear A' and 'Linear B' documents and their historical significance*, and carried out research on that subject in residence at Sheffield from October 1978 until September 1980.

Since my return to the Netherlands in 1980 I have had to take a number of part-time teaching and research appointments simultaneously in several Dutch universities and other institutions for higher education, in the absence of a full-time lectureship or other permanent academic appointment, and this unfortunately delayed the completion of my research and the submission of my dissertation. I am very grateful to the University for allowing me to submit the dissertation somewhat later than the normal final date.

I wish to thank Professor Crossland and Professor Mosley for the advice and help that they have given me during my residence in Sheffield and subsequently, and Dr. J.H. Molyneux for his help since he became Head of the Department of Classical Studies in 1982. I thank the Leverhulme Trust, the University of Sheffield, the British Council and the Amsterdamse Universiteitsvereniging for supporting my work during the academic years 1978-1980; the Registrar of the University of Sheffield and his colleagues, Mr. J. Robson, Assistant Registrar of the Faculty of Arts, the staff of the University Library and the administrative staff of the Departments of Ancient History and Classical Archaeology and of Greek, the Wardens of Stephenson Hall and Sorby Hall and their staff for their assistance with regard to practical arrangements while I was at Sheffield, and Mrs. D.D. Vollgraff for her help with arrangements for my grant from the Amsterdamse Universiteitsvereniging. I am most grateful also for the support and interest in my work on the part of many other colleagues in the Classical departments and other departments of the University during my residence and in general for the welcome and help which I received.

SECOND REVISED EDITION: ACKNOWLEDGEMENTS

I am grateful to Professor D.J. Mosley for presiding the examining committee for the degree of Doctor of Philosophy and to Professor R.A. Crossland (who had moved back to Cambridge at the time) and to Professor M. Pope (University of Oxford), who acted as examiners during the examination and offered their kind advice and constructive criticism.

The script of the dissertation had been written with IBM electric and electronic typewriters, in fact the predecessors of modern personal computers. So the first edition was only produced for a small circle of interested scholars. Although the equipment seemed quite advanced at the time and all texts that had been typed with the electronic typewriter had been loaded on special discs, the whole system turned out to be completely incompatible with modern personal computers. This appeared to be a major problem, especially after the breakdown of the electronic typewriter.

After my return to the Netherlands I took many jobs in teaching Greek and Latin at the Murmellius Gymnasium in Alkmaar, Ancient History in Leiden and Utrecht, Mycenaean Studies at Utrecht and later also Medical education as a teacher in andrological examination in the Academic Medical Centre of the University of Amsterdam and in the Clinical Training Centre of the Free University in Amsterdam. On 10th December 1991 I had a serious car accident on my way to Utrecht, for early in that morning I had a collision with a truck and trailer that blocked a dark road near Callantsoog where I lived at that time. After a week in intensive care I quickly recovered. A few months after I retired from my job at Utrecht I got a heart operation on 23rd June 2009 and received five bypasses thanks to the cardiosurgeons of the Medical Centre of the Free University in Amsterdam and thanks to the veins in my leg that proved to have the right quality. On 1st October 2012 I retired from my last job and eventually I had time to prepare the long-awaited second revised edition. I am very grateful to my partner, J.M. Veldhuizen, who took a lot of work out of my hands to make that possible. A computer expert, Mr. M. Groeneveld, assisted me in scanning the text, so that retyping of the whole manuscript could be avoided. Since the scanning program did not recognize the Greek alphabet and other symbols, there was still a lot to be accomplished. Dr. F.M.J. Waanders has been so kind as to read Volume I and has suggested some minor corrections. Mr. J. Bellis kindly assisted me in scanning maps, plates and tables, and helped me to improve the quality of the scans.

There are two reasons for altering the original title of the dissertation *The onomastics of the 'Minoan Linear A' and 'Linear B' documents and their historical significance* into the new title of the second revised edition: *Minoan Linear A*, Volume I: *Hurrians and Hurrian in Minoan Crete* Part 1: *Text*, and Part 2: *Text, bibliography and indices*.

- I. At the outset of my research at Sheffield it was assumed that most of my studies would concern the onomastics of the Linear B documents and their historical significance, since I had been educated in Greek linguistics and Mycenaean Greek. Not only led this inference to the title of the Ph.D. thesis, but as soon as the title had been approved by the Senate of the University of Sheffield, it could not be changed any more. Never could I have suspected that my Linear A research would lead to a lot more than comparing Linear A and B onomastics.
- II. Since I had also undertaken to publish a *Corpus of transliterated Linear A texts*, combining both monographs as ***Minoan Linear A, Volume I***, and ***Volume II*** appeared to be the best solution.

Since Volume I exceeded the size of a thousand pages and Volume II approached that number, both had to be split into two parts.

I have included pages from the *Corpus of transliterated Linear A texts* in this monograph in order to illustrate the structure of the texts and to enable the readers to judge the readings themselves at a glance. These texts are arranged in such a way that they are first presented in the form and order in which they appear on the tablets or other objects. They are also provided with short bibliographies and critical notes offering the variant readings of the main editions. The critical dots in previous editions beneath a transnumerated or transliterated syllabic sign, ideogram, number or fraction sign belong to the editorial conventions used in Minoan and Mycenaean studies indicating that the reading of these signs is uncertain. Primarily for practical reasons I have replaced these dots by underlining almost illegible or not entirely legible signs. Another reason, why I consider the use of dots underneath letters less convenient, is the fact that in linguistic studies dots beneath a letter can have a phonetic character. Underlining prevents confusion with the latter practice. More and more scholars prefer underlining to using dots. Then the analysed structure of the texts is presented in the same way as Mycenaean Linear B scribes were used to do, nicely tabulating the data as a modern bookkeeper would do.

In the *Corpus of transliterated Linear A texts* I have compared the readings of W.C. Brice, *ILA*, Oxford 1961 (and his predecessors), J. Raison and M. Pope, especially in their editions of *Index transnuméré du linéaire A*, BCILL 11, Louvain 1977, *Corpus transnuméré du linéaire A*, BCILL 18, Louvain-la-Neuve 1980, and BCILL 74, Louvain-la-Neuve 1994, but I have also taken into account the clear photographs and drawings in L. Godart and J.-P. Olivier, *Recueil des inscriptions en linéaire A, Vol. 1-5 (GORILA 1-5)*, Paris 1976-1985, as well as some special studies, for example L.C. Meijer, *Eine strukturelle Analyse der Hagia Triada-Tafeln*, Amsterdam 1982. (The latter study will also be discussed in Chapter 5). Occasionally other relevant studies are critically compared in the *Corpus of transliterated Linear A texts*.

I thank Mr. R. Petrie for designing the layout for the covers of the four monographs and I thank Mr. I. Haank of BRAVE NEW BOOKS and his colleagues for their technical advice and for offering the facilities, which made publication of my life's work possible.

Peter G. van Soesbergen

INTRODUCTION

“L’anthroponymie d’un peuple appartient à la langue de ce peuple, et elle devrait, en principe, figurer en bonne place dans la description de cette langue.

[.....] Paradoxalement, c’est par l’onomastique que l’on détecte la présence de l’ethnie; mais la reconquête du lexique est si lente que l’on reconnaît très souvent la nationalité du nom propre sans pouvoir le comprendre, ni, a fortiori, le traduire.” Emmanuel Laroche, *Glossaire de la langue hourrite, Première partie (A-L) = Revue Hittite et Asianique 34 (1976), Deuxième partie (M-Z, Index) = Revue Hittite et Asianique 35 (1977), Paris 1978-1979, 20.*

I have chosen this statement by E. Laroche as a motto for the introduction to my study on the onomastics of the ‘Minoan Linear A’ and ‘Linear B’ documents and their historical significance, for it is the ethnic identity or original ethnic identity that is sometimes revealed by a name which makes the study of onomastics so interesting from a historical point of view.

Since the decipherment of Linear B nobody has been surprised to find, in Mycenaean Greek texts, names with an established Greek etymology such as the patronymic *e-te-wo-ke-re-we-i-jo* (PY An 654.8-9) = *Ἐτεφοκλεφεΐος*, derived from **Ἐτεφοκλέφης* (> later *Ἐτεοκλῆς*) = ‘Truly famous’, a name that belongs to the wide-spread category of ‘expressive’ personal names which allegedly express some quality of the ‘named’ persons, in this case ‘the reality’ or ‘authenticity’ of the fame which is ascribed to the person in question (cf. e.g. P. Chantraine, *Dictionnaire étymologique de la langue grecque* (= *DELG*), Paris 1968-1980, 381, s.v. *ἑτέος*). One may compare some other compounds such as *Ἐτεόκρητες* = ‘true Cretans’ (Hom., *Odyss.* 19, 176) and *Ἐτεάνωρ* = ‘real man’ (Thera, 7th century B.C.). I do not intend, however, to discuss extensively in this monograph the large corpus of Greek names in Linear B or to attempt to replace O. Landau’s *Mykenisch-Griechische Personennamen* (Göteborg 1958), though a revised edition of that very useful study would be welcome.

My study of Linear A and Linear B onomastics concentrates on the non-Greek and Pre-Greek element in the corpus of Mycenaean Linear B names and on the assessment of the identity of those syllabic sequences in Minoan Linear A that are likely to be names. Although I shall return to this matter later, it may be helpful to mention at present that neither phonological nor morphological evidence suggests that there is any Greek element both in the Linear A names and in its vocabulary (cf. *infra* my criticism of G. Nagy, 'Greek-like elements in Linear A', *Greek, Roman and Byzantine Studies* 4 (1963), 181-211). The scope of this study is limited and it is not presented as exhaustive or even as representative for the entire corpus of non-Greek names in Linear A and B. I hope that it will offer a contribution to further study on the subject. Although I began my research on the onomastica of the Linear B texts and went on from them to investigate those of Linear A, I have thought it best to present and discuss my results in this monograph in the chronological order of the corpora.

Only for Linear B can an attempt be made to distinguish the linguistic adstrate (adstratum) of non-Greek names from their Greek counterparts on the basis of non-Greek roots, suffixes and formants. The distribution of these elements will be traced as far as possible. It is, in this respect, important to define whether they can be found in one particular non-Greek language or in more, and whether that language is, or those languages are, Indo-European or not. In a sense, one could claim that all names with a Greek inflection have become Greek names. It is exactly the Greek inflection that shows that the original adstrate had established itself as part of the Greek vernacular, and that in itself is a phenomenon of historical significance.

It is necessary to define what is meant by adstrate or 'adstratum', because more than one definition of this term can be given. The sense in which I shall use the term is a double one. Adstrate (A), in a wide sense, means any language or linguistic stratum which affects another; it thus subsumes 'substrate', 'superstrate' and 'adstrate (B)'. Adstrate (B), in a limited sense, is a language (or dialect) existing in contact with another, without being either in sociolinguistic substrate or superstrate position in respect to it.

The term ‘dialect’ is used in the sense of a regionally or socially distinctive variety of a language, identified by a particular set of words and grammatical structures. Spoken dialects are usually also associated with a distinctive phonology, pronunciation or accent. Any language with a reasonably large number of speakers develops dialects, especially if there are geographical barriers separating groups of people from each other, or if there are divisions of social class. One dialect may predominate as the official or standard form of the language, and this may be the only variety which comes to be written down.

The distinction between ‘dialect’ and ‘language’ seems obvious, in the sense that dialects are subdivisions of languages. What linguistics, and especially sociolinguistics, has done is to point to the complexity of the relationship between these notions. It is usually said that people speak different languages when they do not understand each other. But many of the so-called dialects of Chinese (Mandarin, Cantonese, Pekingese) are mutually unintelligible, in their spoken form. They exist, however, beside the same written language, which is the main reason why one talks of them as ‘dialects of Chinese’. The opposite situation also occurs: Danes and Norwegians are generally able to understand each other, but their separate histories, cultures, literatures and political structures warrant their idioms being referred to as different languages (cf. D. Crystal, *A first dictionary of linguistics and phonetics*, London 1980, 110).

Substrate or ‘substratum’ is a term used in sociolinguistics and historical language studies to refer to a linguistic variety (i.e. a language or dialect) or set of forms which has influenced the structure or use of a more dominant variety within a community. A substrate language or linguistic substrate is particularly likely to be present when a language is imposed on a community, as a result of political, military, economic or cultural superiority, as can be seen, for instance, in Rumanian which evolved from Latin after the Roman conquest of the Dacian kingdom by the emperor Trajan, but which still preserves and incorporates some substrate characteristics, presumably mainly Dacian.

The opposite phenomenon is known as superstrate or ‘superstratum’. This term, used in sociolinguistics and historical language studies, refers to a linguistic variety or set of forms which has influenced the structure or use of a less dominant variety within a community. A linguistic superstrate is usually the result of political, military, economic or cultural dominance. One of the most noticeable features of superstrate influence is the increased use of loan words.

From a methodological point of view it should be considered sounder linguistics first to identify or isolate adstrate names (in the wide sense) descriptively in Linear B and then to try to define, 1) whether they are substrates, superstrates or adstrates in the limited sense, and 2) whether they are related or similar to names or other elements in any previously known language.

Since no attempt at deciphering Linear A has so far gained wide acceptance among scholars working on the ‘Minoan’ Linear scripts or in the fields of linguistics in question, the approach described above cannot yet be applied to Linear A. As the corpus of Linear A inscriptions is still rather small, especially when compared with that of Linear B, one should probably not expect spectacular results soon.

What is first of all necessary within the scope of this monograph is to define which groups of syllabic signs in the Linear A texts are likely to be names and which lexical elements. This can only be done by analysing the interrelation between groups of syllabograms, ideograms and indications of numbers, fractions, measures and weights, and by checking the results on the basis of a comparison with the grouping of the same items in other texts. The validity of Linear A equations or comparisons with either Linear B onomastica or names known from elsewhere will, of course, be far greater, if the Linear A sequences which are equated can be identified as names themselves or if at least the plausibility of such an identification can be shown. In the chapters on Linear A I shall return to this matter in more detail. Other questions with respect to the decipherment of Linear A will be discussed there as well.

Much progress in describing and analysing the Cretan 'hieroglyphic' or 'pictographic' script has been made by L. Godart and J.P. Olivier. The following publications can be recommended:

J.P. Olivier, 'The possible methods in deciphering the Pictographic Cretan script', in: Y. Duhoux - T.G. Palaima - J. Bennet (eds.), *Problems in decipherment* (BCILL 49), Louvain-la-Neuve 1989, 39-58.

J.-P. Olivier, 'Rapport sur les éditions de textes en écriture hiéroglyphique crétoise, en linéaire A et en linéaire B', in: *Actes du IXe Colloque international sur les texts mycéniens et égéens*, Athens 2-6 October 1990.

L. Godart - J.P. Olivier, *Corpus Hieroglyphicarum Inscriptionum Cretae*, Études crétoises 31, École française d'Athènes, Athens 1996.

L. Godart, 'Les écritures crétoises et le bassin méditerranéen', *Comptes rendus des séances de l'Académie des Inscriptions et Belles-Lettres*, 138^e année, N. 3, 1994, 707-731, writes (707): "Les premiers documents écrits crétois sont représentés par des sceaux découverts à Arkhanès, Moni Odigitria dans la plaine de la Messarà, et Pangalochori dans les environs de Rethymnon; ils datent de l'époque prépalatiale et proviennent de couches de la fin du Minoen Ancien III ou, au plus tard, du Minoen Moyen I A (entre 2250 et 2000 av. n. è.)." He also mentions that about fifteen different signs belonging to the Cretan hieroglyphic system and to that of Linear A are attested on these seals that appear to be the ancestors of the seals and seal impressions of the hieroglyphic deposit dating from Middle Minoan II B (1800/1700 B.C.), discovered by A.J. Evans in the Palace of Knossos.

According to Godart (*ibidem*, 708-709) two scripts developed more or less simultaneously in protopalatial Crete: Linear A, of which the oldest texts were discovered in the layer of destruction of the first palace of Phaistos (MM II B: 1800/1700 B.C.) and Cretan hieroglyphic, to date attested primarily at Knossos and Mallia in the same period (1800/1700 B.C.). Both scripts are syllabic, use a decimal system and ideograms, but in spite of resemblances between Cretan hieroglyphic and Linear A Godart no longer believes that Linear A is derived from Cretan hieroglyphic, but thinks that both systems coexisted. He considers the evidence from the archives at Mallia, discovered by Renaudin and Charbonneaux in 1923, decisive, since within the same palace some scribes wrote Linear A, whereas others used Cretan hieroglyphic.

He also warns (*ibidem*, 709) that we do not know whether Linear A and Cretan hieroglyphic served to register the same language and adds that we cannot bet that the language of the hieroglyphic of the (early) seals is the same as that of the hieroglyphic documents of the archives, and that we can not be certain that the Linear A documents from the archives of the Second Palace period are written in the same language as the contemporary texts written on votive objects. I agree with L. Godart that the corpus of ‘hieroglyphic’ or ‘pictographic’ inscriptions is still too small. It may be better to wait until we are on firmer ground with Linear A before tackling the other script. In choosing which of the Cretan scripts could best be unravelled first, the older Linear A or the younger Linear B, M. Ventris chose the script with the largest available corpus to work on, which turned out to be a wise decision.

J.G. Younger has placed two hieroglyphic grids on the internet: *Cretan Hieroglyphic Grids*, inaugural date 29-7-2003. M. del Freo has published the most recent state of research in ‘Rapport 2006-2010 sur les textes en écriture hiéroglyphique crétoise, en linéaire A et en linéaire B’, *Études mycéniennes 2010 (Actes du XIII^e colloque internationale sur les textes égéens*, Sèvres, Paris, Nanterre, 20-23 septembre 2010), ed. P. Carlier, Ch. de Lamberterie, M. Egetmeyer, N. Guilleux, F. Rougemont, J. Zurbach, Pisa – Roma 2012, 3-22.

There is another reason why I agree with L. Godart that any suggestion that the ‘language’ of the Cretan ‘hieroglyphic’ or ‘pictographic’ script might be the same as that of Linear A, seems to be premature. Linear A and B share some onomastic and possibly lexical elements which probably belong to a common Cretan legacy. This legacy might partly date from Neolithic, partly from Early Minoan and partly from Middle Minoan times. The numerous topographic names with ‘Pre-Greek’ roots and ‘Pre-Greek’ formants or clusters in *-nd-* and *-s(s)-* in Asia Minor, in *-nt(h)-* and *-s(s)-* in Greece, Crete, Italy, the Balkan and Danube areas, probably belong to the older linguistic strata of these territories, cf. e.g. A. Fick, *Die Vorgriechische Ortsnamen als Quelle für die Vorgeschichte Griechenlands*, Göttingen 1905; J.B. Haley and C.W. Blegen, ‘The Coming of the Greeks’, *AJA* 32 (1928), 141-154. A great deal of such names may already have existed before Minoan kings built their first palaces. Compare also the views of E. Laroche, R.A. Crossland and C.J. Ruijgh on the subject discussed in Chapter 4: *Script and Language*.

F. Schachermeyr, *Ägäis und Orient*, Österreichische Akademie der Wissenschaften, Philosophisch-Historische Klasse, Denkschriften, Band 93, Wien 1967, 13-15, provides maps of the areas just mentioned (Fig. 2-6) with the wide spread of toponyms, river names, mountain names with these Pre-Greek suffixes.

Interpretation of the 'script' on the Phaistos disk would be even more hazardous so long as this object remains an isolated document. Y. Duhoux has provided a critical edition on the matter: *Le disque de Phaestos*, Louvain 1977. J. Chadwick, *Reading the past, Linear B and related scripts*, British Museum Publications, London 1987, Chapter 7: The Phaistos disk, 57-61, has concluded that the disk probably contains a syllabic script. About the direction of the script he gives some plausible arguments why the inscription probably runs from right to left starting from the edge. The starting point on the rim is indicated by an upright line with heavy dots on it. The many attempts to 'decipher' the script of the Phaistos disk show a lot of fantasy and imagination, but remain pure speculation. The results of E. Masson's studies on the Bronze Age Cypro-Minoan scripts are encouraging, though she met with criticism.

Since readers interested in the ancient languages, history, religions and archaeology of the Aegean, Crete, Anatolia and the Near East may look for answers to several questions, and since they will not all be equally familiar with the orthographic differences between the Linear scripts of class A and B on the one hand and the cuneiform scripts on the other, I have tried to explain these differences repeatedly throughout the manuscript. I have done so for the convenience of the reader, not to annoy the experts who may already be familiar with one of the scripts and to whom I should like to apologize for the inconvenience. The purpose of the thesis and the present monograph has never been to present a full and up-to-date description of the Anatolian, Hurrian and other languages of the Near East and of their grammars, but to present a balanced analysis of the Linear A and relevant Linear B documents. Regarding the scope of my research on the Cretan documents and the many fields of research that might be connected, it would have been impossible to discuss every item extensively. Since I started my research a long time ago, I have, with regard to Hurrian studies, referred more often to the works of scholars like E.A. Speiser, F.W. Bush, E. Laroche and G. Wilhelm than to the more recent publications by e.g. I. Wegner, V. Haas and Th. Richter. This does not mean that their studies are less appreciated than the works of their honourable predecessors.

CHAPTER 1

LINEAR A AND RELATED SCRIPTS

It was Sir Arthur Evans who coined the names of the Cretan scripts in *Scripta Minoa I*, Oxford 1909, when he distinguished the Linear scripts of Class A and Class B which he found at Knossos, from what he called the Cretan ‘hieroglyphic’ or ‘pictographic’ script. The latter terms are in a sense misleading; the first suggests, probably wrongly, that the script is related to Egyptian ‘hieroglyphic’ writing; the second that its mechanism may be essentially ideographic. Linear B was styled ‘Minoan’, because the Linear B finds had only appeared at Knossos, as the archives of the Greek mainland (Pylos, Mycenae, Thebes) had not yet been discovered, and because Evans regarded Linear B as a further development of Linear A, probably recording the same language.

Since it seems most likely that Linear B inherited not only most signs from its predecessor Linear A, but also its orthographic conventions, it may be wise to explain these conventions, because it seems methodologically the best approach to treat Linear A “as if it is the script of Linear B”, until somebody proves that it should be treated otherwise or in what respect it should be treated otherwise. This approach is the more justified, since the script of Linear B appears far from adequately designed for the notation of Greek. Consequently at least part of the deficiencies is suspected to be the result of inheritance from the older script, Linear A, that was probably designed for another language. Another reason is that some attempts to decipher Linear A shattered, because the orthographic conventions known from Linear B were applied in an arbitrary and inconsistent manner. The ‘orthographic deficiencies’ should not be exaggerated, because one should always realize that the scribes knew the places, the persons, the objects, the transactions and the context they described and, if they wrote, for instance, *pa-te*, they knew exactly whether they meant *πατήρ* or *πάντες*. So from the perspective of the scribes one could say: As long as they could read what they wrote, the script was effective, however primitive or simple it may appear in our eyes.

Since the scripts of Linear B and of A only used syllabic signs reflecting open syllables, this had consequences for the way how final consonants were expressed and how the problem of consonant clusters was solved.

Orthographic conventions of Linear B:

1. Linear B omitted writing the final consonants *-n*, *-r*, *-s*. This was not a great problem, since *ν*, *ρ* and *ς* are the only final consonants in Greek. A form like *φάναξ* posed a problem: treating *-ξ* as */ks/* one chose to omit writing *-s*, but to express *-k-* by using a last ‘mute’ *-a* in *wa-na-ka*, adopting the vowel from the preceding syllable. The irregular orthography of *wa-na-ka-te-ro* = *φανάκτηρος* is then based on the analogy of *wa-na-ka*.
2. In consonant clusters the occlusives (stops) were always expressed, e.g. *a-re-ku-tu-ru-wo* = *Ἀλεκτρυών* > *Ἀλεκτρυνών*; *a-ko-so-ne* = *ἄζονες*.
3. The non-occlusives (*σ*, *μ*, *ν*, *ρ*, *λ*, *φ*) preceding sonantic consonants (*μ*, *ν*, *ρ*, *λ*, *φ*, *γ*) were usually expressed: e.g. *a-mi-ni-so* = *Ἀμνισός*; *de-so-mo* = *δεσμός*. However, *ρ* and *λ* preceding *μ*, *ν*, and *φ* were usually omitted: e.g. *pe-ma* = *σπέρμα*; *ko-wa* = *κόρφα*.
4. Non-occlusives preceding non-sonantic consonants (occlusives + *σ*) were usually not expressed: e.g. *pe-mo* = *σπέρμο*; *pa-i-to* = *Φαιστός*; *ka-ko* = *χαλκός*.
5. As ‘mute’ vowel one usually chose the next vowel belonging to the same syllable (except in the case of *wa-na-ka* as discussed before). However, before *γ* one always chose *i*, because it is phonetically cognate with that semivowel: *di-wi-ja* = *Δίψα*. Before *φ* one had the choice between the next vowel or *u*, phonetically cognate with semivowel *w*: *ke-se-ni-wi-jo* or *ke-se-nu-wi-jo* = *ξένφις*.
6. In diphthongs with *υ* as second phoneme *υ* was always expressed: e.g. *a-ro-u-ra* = *ἄρουρα*. In diphthongs with *ι* as second phoneme *ι* was usually not expressed: e.g. *e-ra-wo* = *ἔλαιφον*, but since Linear B had developed a new sign, *ra₃* = *ραι/λαι*, which did not exist in Linear A, the Mycenaean scribes could also write *e-ra₃-wo* = *ἔλαιφον*, which can be regarded as a doublet. If the diphthong with *ι* as second phoneme was followed by *σ*, the *ι* was usually expressed: e.g. *pa-i-to* = *Φαιστός*. Exceptionally this phenomenon also occurred elsewhere: as doublet of *a-pi-qo-ta* = *Ἀμφιχ^wοίτᾱς* (cf. *φοιτάω*) occurred also *a-pi-qo-i-ta*.
7. Linear B created some new special signs, not yet used in Linear A: *a₂* with the value *ᾱ* = */ha/* as in *a₂-te-ro* = *ἄτερος* (Att. *ἔτερος*), *a₂-te-ro we-to* (PY Ma 365, 2) = *ἄτερον φέτος* ‘the other year’ = ‘next year’; and *a₃* = *αι* as in *a₃-ku-pi-ti-jo* = *Ἀγύπτιος*, where *a₃* was always used.

Evans also drew attention to the Cypriot syllabary used for Eteocypriot and for Greek until the Hellenistic period, as he considered it a descendant of Linear A.

The connection between the Cretan and Cypriot scripts was confirmed by the evidence provided by Michael Ventris's decipherment of Linear B in 1952, which proved that most signs of Linear B that could be identified graphically with signs of the Classical Cypriot syllabary had the same phonic values, although there were important differences as well:

1. The labio-velar series, which had been in use in Linear B, was not required in the system of Classical Cypriot.
2. As in Linear B no distinction was made between voiceless, voiced and aspirate occlusives, but whereas Linear B had two separate series for the voiced and voiceless dental stops, the Classical Cypriot script did not distinguish *d-*, *t-* and *th*.
3. The Classical Cypriot syllabary used separate *l-* and *r-* series which Linear B did not distinguish.
4. The signs for the 5 vowels (without distinction between long and short vowels as in Linear B) were used initially and as second element of a diphthong. Diphthongs were also spelled out more consistently than in Linear B.

The common direction of writing in Classical Cypriot, from right-to-left, differed from the usual left-to-right direction in Linear B. A more important difference lay in the orthographic conventions of Linear B and Classical Cypriot:

1. Linear B omitted writing the final consonants *-n*, *-r*, *-s*, which was not a vital deficiency, since the scribes knew what they had written and because the range of final consonants is rather limited in Greek. The Cypriot syllabary, however, used the syllables *ne*, *re* and *se* for noting the Greek final consonants, e.g. *ka-se* = *κάς*.
2. The Cypriot script also possessed a 'more complete' system of writing consonant clusters than Linear B by using a syllabic sign 'de facto' to represent a consonant, ignoring its inherent vowel, the only exception being the omission of the nasals before another consonant, e.g. *a-ti* = *ά(ν)τί*. The first consonant in consonant clusters is indicated by the sign containing the vowel of the syllable to which this consonant belongs. Its vowel is thus determined by the following in the case of initial groups and consonant + liquid; by the preceding in the case of liquid + consonant and also *s* + consonant: *po-to-li-ne* = *πτόλιν*, *pa-ti-ri* = *πατρί*, *a-ra-ku-ro* = *ἄρρυρος*, *e-se-ta-se* = *ἔστασε*, cf. C.D. Buck, *The Greek Dialects*, Chicago 1955, 210.

An important discovery was made in 1979 by V. Karageorghis during his excavations at Old Paphos (Kouklia-Paphos). He found three obeloi dated to the end of the eleventh century B.C. of which one carried a syllabic inscription (cf. V. Karageorghis, *Recent excavations at Old Paphos, lecture given at University College London on 28.11.1979*; cf. *Comptes Rendus Acad. Inscr. et B.-L.* for 1.2.1980). This inscription, possibly the ‘missing link’ between the Cypro-Minoan and Classical Cypriot syllabaries, contains a sequence, transliterated by V. Karageorghis and E. Masson as *o-pe-le-ta-u* and interpreted as a personal name in the genitive form Ὀφέλταν, probably signifying the owner of the obelos, Ὀφέλτας, a name already known in Linear B as *o-pe-ta* (KN B 799+8306.6), cf. E. Masson, *Literacy in Cyprus during the late Bronze Age* (paper read at the meeting of the London Mycenaean Seminar on 21.11.1979); cf also P.G. van Soesbergen, ‘The coming of the Dorians’, *Kadmos XX.1* (1981), 48. Considering the great similarity between the signs of the eleventh-century inscription and those of the Classical Cypriot script the two scholars have preferred to apply the orthographic conventions of the Classical Cypriot syllabary. If they are right (and they may well be), they applied the rules correctly (cf. e.g. Classical Cypriot *a-ra-ku-ro* = ἀργύρο̄ : 11th century Cypriot *o-pe-le-ta-u* = Ὀφέλταν).

With only one eleventh century inscription at our disposal it might, however, be wise to wait for more conclusive evidence from other inscriptions from the same site and the same period regarding the application of orthographic conventions to the representation of consonant clusters, before we can decide whether Classical Cypriot or Linear B conventions should be applied. According to Linear B orthography one could interpret *o-pe-le-ta-u* as a genitive of e.g. Ὀφελέστας (cf. PY An 209.3: *o-pe-re-ta*; *Iliad* VIII, 274: Ὀφελέστης), already with the Classical Cypriot genitive in *-āv*.

Indeed the phonological and morphological evidence provided by the inscription is significant, since the genitive in *-āv*, typical for Arcado-Cypriot in classical times, may well point to a dialectal unity of Arcadian and Cypriot as early as the end of the eleventh century B.C.. C.D. Buck, *The Greek Dialects*, Chicago 1955, 27, compares classical Arcadian *Καλλίαν* and classical Cypriot Ὀνασιγόραν. Unfortunately, †Ὀνασιγόραν is an error for Ὀνασαγόραν, as is clearly shown by the inscription from the second half of the fifth century B.C. from Edalion / Idalium n° 23, reading Ὀνασαγόραν:

(1) *o-te | ta-po-to-li-ne-e-ta-li-o-ne | ka-te-wo-ro-ko-ne-ma-to-i | ka-se-ke-ti-e-we-se | i-to-i | pi-lo-ku-po-ro-ne-we-te-i-to-o-na-sa-ko* (2) *ra-u | pa-si-le-u-se | sa-ta-si-ku-po-ro-se | ka-se-a-po-to-li-se | e-ta-li-e-we-se | a-no-ko-ne-o-na-si-lo-ne | to-no-na-si-ku-po* (3) *ro-ne-to-ni-ja-te-ra-ne | ka-se | to-se | ka-si-ke-ne-to-se | i-ja-sa-ta-i | to-se | a-to-ro-po-se | to-se | i-ta-i | ma-ka-i | i-ki* (4) *ma-me-no-se | a-ne-u | mi-si-to-ne | etc.*

(1) Ὅτε τὰ(ν) πόλιν Ἐδάλιον κατέφοργον Μᾶδοι καὶ Κετιῆρες ἰ(ν) τῷ Φιλοκύπρων φέτει τῷ Ὀνασαγό⁽²⁾ραν, βασιλεὺς Στασίκυπρος καὶ ἁ πόλις Ἐδάλιῆρες ἄνωγον Ὀνασίλον τὸν Ὀνασικύπ⁽³⁾ρων τὸν Ἰγατῆραν καὶ τὸς κασιγνήτος ἰγᾶσθαι τὸς ἁ(ν)θρώπος τὸς ἰ(ν) ταῖ μάχαι ἰκ⁽⁴⁾μαμένος ἄνευ μισθῶν. The phrase Ὀνάσιλον τὸν Ὀνασικύπρων follows almost immediately. So one can understand Buck's error of †Ὀνασιγόραν instead of Ὀνασαγόραν.

C.D. Buck, *ibidem* 211, used lengthened *a*, *e* and *o* (not *η* and *ω*) in accordance with the practice adopted for other inscriptions, but I could not follow these orthographic conventions, because combination of accent with indication of lengthening appeared impossible for my simple personal computer.

Some notes should be made to the inscription: Words and names are separated by a special sign |, used as word divider, not as separator of lines. The lines are indicated by numerals. Word dividers are usually, but not always, omitted after an article and sometimes in other groups of words as well. A final consonant is then often treated as a medial, e.g. *ta-po-to-li-ne* = τὰ(ν) πόλιν, cf. Buck, *ibid.*, 210-211.

The obelos inscription dated to the end of the 11th century B.C. provides an epigraphic *terminus ante quem* for the arrival of Arcadian settlers in Cyprus and points to the parts of the island that they occupied. Pindar (*Nemean Ode* IV, 44-48) refers to the tradition that Teukros colonized Salamis in Cyprus, and Pausanias (VIII, 5, 2) informs us that the Arcadian king Agapenor founded Paphos and built the sanctuary of Aphrodite (probably to be equated with Astarte) at Old Paphos after the storm that had overtaken the Greeks on their way home from the capture of Troy carried him and his Arcadian fleet to Cyprus (cf. also Strabo, *Geog.* XIV, 6, 3 and Scholion on Lycophron, *Alexandra* 479ff.). According to Pausanias (VIII, 5, 3) contact between the island and Arcadia was maintained in the next generation or generations. The same author (VIII, 53, 7) tells that a temple of the Paphian Aphrodite was founded at Tegea in Arcadia by Laodike, a descendant of Agapenor. Now one may wonder, which script Agapenor's Arcadians would have used. To date there have not been found any Mycenaean palaces or archives in Arcadia, but that does not necessarily mean that the Arcadians of Mycenaean times were entirely illiterate.

If the Arcadians arriving with Agapenor had indeed brought the script of Linear B with them to Cyprus, would not we then have the possibility that Linear B orthographic conventions were still in use when the obelos-inscription was written, whereas, on the other hand, the syllabic signs had already been adapted to the collateral Cypriot style of writing, probably derived from Cypro-Minoan traditions. If this reconstruction is correct, the obelos-inscription from Old Paphos would provide a missing link in the true sense between Agapenor's arrival at Old Paphos and the times of the Classical Cypriot texts. Unfortunately, as long as no more inscriptions from the 11th century B.C. have been found in Cyprus, these reflections remain academic theory and (one may say) even pure speculation.

The Cretan scripts may also be related to a series of Bronze Age Cypro-Minoan inscriptions found since 1955, which have been studied by E. Masson and O. Masson.

	CM 1	CM 2	CM 3		CM 1	CM 2	CM 3
1	I	I	I	21	∩ () ^	∩	
2	† Ψ		Ψ	22			∩
3			Φ	23	∩ ∩	∩	∩
4	└ ʔ	└	ʔ	24	∩ ∩	∩	
5	+ †	+	+	25	∩ ∩	∩	∩
6	‡ ‡	‡	‡ ‡	26	∩		
7	‡			27	∩ ∩ ∩	∩	∩
8	‡ ‡ ‡	‡	‡	28	∩ ∩	∩	∩
9	‡ ‡	‡ ∩	‡ ‡	29	∩	∩	
10		‡		30		∩	
11		∩		31	∩		
12	∩	∩		32	∩		
13	∩ ∩			33		∩	
14	∩			34	∩ ∩		
15	∩			35	∩ ∩	∩ ∩	∩ ∩
16	∩			36	∩ ∩	∩ ∩	∩ ∩
17	∩	∩		37	∩ ∩	∩ ∩	∩ ∩
18	∩			38	∩ ∩ ∩	∩ ∩	∩ ∩
19	∩ ∩		∩	39	∩ ∩ ∩		
20			∩	40			∩

After E. Masson, *Cyprominoica*, Fig. 2
Répertoires parallèles des trois syllabaires chypro-minoens

	CM 1	CM 2	CM 3		CM 1	CM 2	CM 3
41				61			
42				62			
43				63			
44				64			
45				65			
46				66			
47				67			
48				68			
49				69			
50				70			
51				71			
52				72			
53				73			
54				74			
55				75			
56				76			
57				77			
58				78			
59				79			
60				80			

After E. Masson, *Cyprominoica*, Fig. 3

E. Masson distinguishes Cypro-Minoan 1, 2 and 3. CM 1 and 2 are the two varieties found in Cyprus itself, while CM 3 comprises the Cypro-Minoan documents discovered at the site of Ugarit, modern Ras Shamra (cf. E. Masson, *Cyprominoica, répertoires, documents de Ras Shamra, essais d'interprétation*, SIMA 31.2: *Studies in the Cypro-Minoan scripts* 2, Göteborg 1974). The direction of writing in the Cypro-Minoan scripts turned out to be left-to-right as in Linear A and B, the only exception being an example of *boustrophedon* (written, *as an ox turns in ploughing*, in alternate lines from left to right and from right to left) on the CM 3 tablet RS 17.06. The Cypro-Minoan scripts are far from being deciphered, cf. Ph. M. Steele (ed.), *Syllabic writing on Cyprus and its context*, Cambridge 2013. The main problem is that the number of texts, especially those with a sufficiently long inscription, is still limited. According to E. Masson the CM 1 and 3 texts have a West Semitic connection, mainly containing proper names, although she identifies some Anatolian and Hurrian names in them as well (cf. E. Masson, *ibidem*, 43).

	CM 1	CM 2	CM 3		CM 1	CM 2	CM 3
81	𐎠𐎡	𐎠𐎡		101	𐎠𐎡𐎢		
82	𐎣			102	𐎠𐎡	𐎠𐎡	𐎠𐎡
83	𐎣			103	𐎠𐎡		𐎠𐎡
84	𐎣			104	𐎠𐎡	𐎠𐎡	𐎠𐎡
85	𐎣𐎤𐎥			105			𐎠𐎡
86	𐎣			106	𐎠𐎡		
87	𐎣𐎤	𐎠𐎡	𐎠𐎡	107	𐎠𐎡𐎢𐎣	𐎠𐎡	
88	𐎣𐎤𐎥			108	𐎠𐎡𐎢		
89		𐎠𐎡		109	𐎠𐎡𐎢		
90		𐎠𐎡		110	𐎠𐎡𐎢𐎣	𐎠𐎡	𐎠𐎡
91	𐎣𐎤𐎥		𐎠𐎡𐎢	111	𐎠𐎡𐎢		
92	𐎣		𐎠𐎡𐎢	112	𐎠𐎡𐎢		
93		𐎠𐎡𐎢		113	𐎠𐎡𐎢		
94			𐎠𐎡𐎢	114	𐎠𐎡𐎢		
95	𐎠𐎡	𐎠𐎡	𐎠𐎡				
96	𐎠𐎡𐎢	𐎠𐎡𐎢	𐎠𐎡𐎢				
97	𐎠𐎡𐎢𐎣	𐎠𐎡	𐎠𐎡				
98	𐎠𐎡		𐎠𐎡				
99	𐎠𐎡𐎢𐎣		𐎠𐎡𐎢				
100			𐎠𐎡𐎢				

After E. Masson, *Cyprominoica*, Fig. 4

CM 2, however, offers sequences of signs which seem to show the typical Hurrian system of agglutination (*'un système de suffixation de type hourrite'*, cf. E. Masson, *ibidem*, 47-55) and, whereas the other two Cypro-Minoan scripts show strong evidence for the occurrence of the vowels *a*, *i* and *u*, CM 2 also offers the vowel *e*, in initial as well as in medial and final positions, a vowel which is common and phonemic in Hurrian. E. Masson considers an extra *o* series not essential for Hurrian, since *u* may be regarded as an allophone of *o*, in particular in the suffix indicating the past tense *-už-*, which is probably to be read as *-ož-* (cf. E. Masson, *ibidem*, 49 and note 169). Through a clever analysis she may well have recognized the Hurrian grammatical form *a-ru-ža* as the singular third person in the past tense of the verb *ar-* 'to give', as well as the Anatolian theonym *ža-ru-ma* 'Šarruma', in the alphabetic cuneiform of Ugarit *trm* or *drm*, adopted in Hurrian as the name of the son of the bull *Tešub* and his consort *Hebat* (cf. E. Masson, *ibidem*, 54-55).

An etymological derivation seems attractive for another reason. The Greek epithet of Aphrodite, *Κύπρις* (*Κυπρογένεια*), emphasizes the idea of a relationship between the goddess and the island of *Κύπρος*. In the latter case, however, the goddess is called after the island.

It does not seem likely that *-ši-* in *Alašiya* has anything to do with the Hurrian abstract suffix *-šši/-šše* in the name of the ceremony *allašši*, but there is also a difference in the cuneiform orthography between the name of the island (with single writing of *-l-*) and that of the goddess (with double writing of *-ll-*). Hurrian scribal and orthographic conventions appear to be quite strict in the Tušratta letter, but are a lot less strict elsewhere. In Anatolia there is a difference between the Hittite and Cappadocian orthographies. E. Laroche, *Les noms des Hittites*, 1966, 240, note 4: “Les noms cunéiformes seront orthographiés selon l’usage cappadocien, sans gémination consonantique hittite. Par ex.: *Kuku* = capp. *Ku-ku-ú*, hitt. *Ku-uk-ku*; *Ana* = capp. *A-na-(a)*, hitt. *A-an-na*, etc.” In places like Nuzi, which was predominantly Hurrian, the variations in orthography are countless. I give a few examples: *Kukkuia* (wr. *Ku-uk-ku-ia*, *Ku-ku-ia*, *Ku-ku-e*, ^f*Ku-uk-ku-ia*, ^f*Ku-ku-ia*), cf. P.M. Purves, *NPN*, 229, s.v. *kukk*; *Paiš-kummi* (wr. *Pa-iš-ku-um-mi*, *Pa-iš-ku-mi*, *Pa-iš-ku-um-me*), *ibid.*, 229, s.v. *kummi*; *Šur-tešup* (wr. *Šu-ur-te-šup*, *Šu-ur-te-eš-šu-up*); *Šurukka* (wr. *Šu-ru-uq-qa*, *Šu-ru-ga*, *Šu-ru-ka*, *Šu-ru-uk-ka*, *Šu-ru-úg-ga*), *ibid.*, 259, s.v. *šur*. On account of these examples one might argue that single writing of *-l-* in *Alašiya* is just a variant and not necessarily in conflict with a derivation from *Allay*, but considering the orthography of the compound personal names at Nuzi with the theophorous elements *Allai-* and *-allai* it is clear that a majority of these names is written with double *-ll-*. Only the variants of the compound name *Allai-turahe* show one example with single writing of *-l-*: ^f*Al-la-i-du-ra-ḫé*, ^f*Al-la-i-du-ra-ḫe*, ^f*Al-la-i-tu-ra-ḫé*, ^f*A-la-i-tu(m)-ra-ḫe*, cf. I.J. Gelb, *NPN*, 18-19; P.M. Purves, *NPN*, 199.

Eventually it remains difficult to decide whether there may be an etymological relation between *allay* and the name of the island *Alašiya*. Another derivation is after all feasible, though less spectacular, but with the advantage of an orthography with single *-l-*. It is the Anatolian toponym *Ala* (^{uru}*A-la-a*), KUB XXVI 43 Ro 23; IBoT 131 Ro 41, with the Hittite and Luwian derivations *Ala-muwa*, *Ala-ziti*, ^f*Ala-washi*, *Ala-wanni* (E. Laroche, *NH*, 272). Unfortunately we do not know the location of the site of *Ala*. So we do not know either, whether it is likely that the name *Alašiya* may be derived from that toponym. And if so, what is the etymology of *Ala* ?

CHAPTER 2

ACCESSIBILITY OF THE LINEAR A TEXTS

Scholars pursuing Linear A research owe their gratitude to all those archaeologists who have made an effort to publish the texts they found as quickly as possible, but most of all to those sedulous colleagues who have made the vast material accessible in a comprehensive and systematic way by means of clear photographs, drawings, transcriptions and transnumeration. In this respect should be mentioned:

1. G. Pugliese Carratelli, 'Le iscrizioni prehelléniche di Hagia Triada in Creta e della Grecia peninsulare', *Monumenti Antichi* 40 (1945), 422-610.
2. G. Pugliese Carratelli, 'Nuove epigrafi minoiche da Festo', *Annuario della Scuola Archaeologica di Atene* 35-36, N.S. 19-20 (1957-1958), 363-388.
3. G. Pugliese Carratelli, *Le Epigrafi di Hagia Triada in Lineare A (Supplement to Minos)*, Salamanca 1963. W. C. Brice, *Inscriptions in the Minoan Linear Script of Class A (= ILA)*, Oxford 1961.
4. A. Lebessi, J.-P. Olivier, L. Godart, Πινακίδες γραμμικῆς Α ἐξ Ἀρχανῶν, *Ἀρχαιολογικὴ Ἐφημερίς* (1974), 113-167.
5. N. Platon and W.C. Brice, *Ἐνεπίγραφοι πινακίδες καὶ πίθοι γραμμικοῦ συστήματος Α ἐκ Ζάκρου - Inscribed tablets and pithos of Linear A system from Zakro*, Athens 1975.
6. I.A. Papostolou, L. Godart, J.-P. Olivier, *Γραμμικὴ Α στὸ Μινωικὸ ἀρχεῖο τῶν Χανίων* (Incunabula Graeca LXII), Rome 1976.
7. L. Godart et J.-P. Olivier, *Recueil des Inscriptions en Linéaire A*, Vol. 1-5, *Études Crétoises* XXI, 1-5 (*GORILA 1-5*), Paris 1976-1985.
8. J. Raison et M. Pope, *Index du linéaire A* (Incunabula Graeca XLI), Roma 1971.
9. J. Raison et M. Pope, *Index transnuméré du linéaire A*, BCILL 11, Louvain 1977.
10. J. Raison et M. Pope, *Corpus transnuméré du linéaire A*, BCILL 18, Louvain-la-Neuve 1980.
11. J. Raison et M. Pope, *Corpus transnuméré du linéaire A*, BCILL 74, Louvain-la-Neuve 1994².

CHAPTER 3

CLASSIFICATION OF LINEAR A SIGNS AND INSCRIPTIONS

As in Linear B, those Linear A signs which occur in groups in differing combinations may be treated provisionally as syllabic signs; those which occur alone, in most cases immediately before numerals, as ideograms. Some signs occurring alone, especially in the headings of tablets, might well be transaction terms, possibly primarily in abbreviated form.

G. Pugliese Carratelli, followed by W.C. Brice, classified all these signs as belonging to series *L* (cf. W.C. Brice, *ILA*, Oxford 1961, Table 1). The list constituted 135 simple or primary signs and was based on visual criteria, since a sharp distinction between syllabograms and ideograms was not always possible, because some apparent syllabic signs also occurred alone, in which case they might be either monosyllabic words or names or abbreviations or have an ideographic function. Some signs were included as lemmata in the list, although they were suspected of being only variant forms of already listed signs. In some cases this precaution turned out to have been wise. *L* 7, for instance, had been suspected of being a variant of *L* 25, but recently appeared in a tablet from Zakros and one from Khania (cf. M. Pope and J. Raison, *Études Minoennes I*, BCILL 14, Louvain 1978, 13).

A supplementary list of another 37 primary signs was classified as *L'* (cf. W.C. Brice, *ILA*, Oxford 1961, Table 1). Some Linear A syllabic signs are combined in ligature with other signs in a sort of shorthand writing which appears to have been more popular in Linear A than in Linear B. In particular ideograms are sometimes combined with a syllabic sign, probably indicating a special variety of the product represented by the ideogram. Various types of grain and aromatic oil, for instance, are differentiated in this way. The combination of an ideogram with a syllabic sign may perhaps be compared with cuneiform usage of ideograms combined with 'phonetic complements'. Eighty-eight ligatures were assigned to the *Lc* series by Pugliese Carratelli and Brice, again on the basis of visual criteria, and a supplementary list of nine ligatures was added by Brice as *Lc'* (cf. W.C. Brice, *ILA*, Oxford 1961, Tables 2 and 3).

Sir Arthur Evans had already recognized the decimal system of the numerals. A vertical stroke indicates a unit, a horizontal dash (on some tablets a dot) a ten, a circle a hundred and a sign which resembles the shape of the dial of a compass a thousand (cf. W.C. Brice, *ILA*, Oxford 1961, Table 2). Linear A has a series of signs which may provisionally be treated as fractions, a category that does not occur in Linear B. Pugliese Carratelli assigned these signs, this time on the basis of functional criteria, to a series called **Lm**. Brice distinguished 25 **Lm** signs and 7 **Lm'** signs (cf. W.C. Brice, *ILA*, Oxford 1961, Tables 2 and 3).

J. Raison and M. Pope have simplified and harmonized the system of classification, omitting the indicators *L*, *L'*, *Lc*, *Lc'*, *Lm* and *Lm'*. They reserved for the *L* and *L'* signs with their variants the numbers 1-500, numbered the *Lc* and *Lc'* signs with their variants from 501 onwards and assigned to the *Lm/Lm'* series capital letters: A, B, C etc. (cf. J. Raison and M. Pope, *BCILL 11*, 18, and 74, Louvain-la-Neuve 1977, 1980 and 1994). Following the principles of their *Index du linéaire A* (Rome 1971), they also divided the signs into four large groups on the basis of functional criteria: I. 'simple' signs occurring in 'words' or 'names'; II. 'simple' signs never occurring in 'words'/'names'; III. 'complex' signs/'ligatures'; IV. fractions.

L. Godart and J.-P. Olivier have introduced a new standard table of Linear A (Tableau des signes standardisés du linéaire A) in *GORILA 5*, XXII - XXVII, starting (p. XXII) with the signs 01-11, 13, 16-17, 20-24, 26-31, 34, 37-41, 44-47, 49-51, 53-61, 65-67, 69-70, 73-74, 76-82, 85-87, 118, 120, 122, 123, 131a, 131b, 131c, 164, 171, 180, 188, 191, which can be qualified as homographs in Linear A and B. To these signs, which are labelled **AB**, they have attributed the numbers of the Linear B signs according to the *Wingspread Convention for the Transcription of Mycenaean (Linear B) Texts*, published as 'Appendix' in *Mycenaean Studies* (Proceedings of the third international colloquium for Mycenaean studies held at "Wingspread", 4 - 8 September 1961), ed. E.L. Bennett, Jr., Madison 1964, 253-262.

To the signs which they consider uniquely Linear A they have attributed the numbers beginning with A 301. These numbers follow in order of diminishing frequency. Signs A 340 to A 371 are *hapax*. The signs representing vases received the numbers A 400^{VAS} to A 418^{VAS}. Complex signs or ligatures comprise the numbers A 501 to A 664, the signs for simple fractions A 701 to A 713 and those for complex fractions A 714 to A 743.

Referring to E.L. Bennett and the Wingspread Convention, which explicitly only referred to the script of Mycenaean Linear B, Godart and Olivier abandoned the system of numeration of Linear A signs, in use since E. Stefani, G. Pugliese Carratelli, W.C. Brice, J. Raison and M. Pope. They argued: “Dès lors, la question se posait à nous: fallait-il continuer à user d’un système de classification et de numérotation vieilli, peu adéquat, inutilement compliqué, alors que la possibilité se présentait, à l’occasion de la confection des «Tableaux», des «Index», et des «Planches» de *GORILA* 5, de rapprocher le système de classement des signes du linéaire A (et la numérotation qui en est difficilement séparable) de celui du linéaire B ? De le rapprocher seulement ? Et pourquoi pas de l’y intégrer, plus simplement ? Le linéaire B, paléographiquement parlant, est issu d’une forme du linéaire A; et si 75 % des signes simples sont communs aux deux systèmes, en fait plus de 90 % de la masse totale des signes simples du linéaire A ont leur équivalent graphique en linéaire B.”

Certainly many of these arguments may be of interest and it might have been an advantage in some respects, if these arguments had been taken into consideration from the beginning of the 20th century, when the first Linear A and B texts were discovered, but we have to accept that from the very beginning the Cretan scripts of Class A and Class B were treated as different scripts in spite of the acknowledged similarities and that consequently different conventions were applied to the notation of the scripts. Sir Arthur Evans thought that the scripts, which he coined Linear A and B, probably notated the same language, but even though he considered it wise to distinguish the two from each other. That turned out to be a very cautious and wise decision. Of course, there is no objection to comparing Linear A and Linear B signs, but to bring them together in one and the same system of classification is another matter.

There are disadvantages as well. What to do, if eventually a sign with alleged graphic identity in Linear A and B has been given the same AB number, but turns out to have a different phonic identity in the two scripts ? This is not inconceivable at all. Comparison of Linear B with the Classical Cypriot script shows that. And here we are dealing with Mycenaean Greek and Classical Cypriot, in fact the older and younger forms of the same Greek dialect. A practical disadvantage of adopting this new numeration system is that it turns in a sense all previous publications obsolete or out of date and makes quotations of these works more complicated.

So one must think twice before adopting such a rigorous change of the numeration system of all Linear A signs, especially if some scholars adopt these changes and others do not. In the edition of my Sheffield Ph.D. thesis I had already used the numeration of Linear A signs according to the system of J. Raison and M. Pope, who had in fact simplified and expanded the numeration system adopted by G. Pugliese Carratelli and W.C. Brice. After publication of *GORILA* 5 in 1985 Raison and Pope did not follow *GORILA*'s 'new numeration system' in the second edition of their *Corpus transnuméré du linéaire A* (1994), whereas J.G. Younger (2000), who followed *GORILA* in almost every respect, did.

For the time being it seems wise not to switch to another system in this edition of *Minoan Linear A*, Volume I. Only in quotations of and references to *GORILA* it appears opportune to use *GORILA*'s numeration, with the addition of *, in order to distinguish the AB and A numbers from conventional numerations. The same applies to the edition of *Minoan Linear A*, Vol. II: *Corpus of transliterated Linear A texts*.

With regard to the question of whether signs may be syllabic or ideographic or whether they may have some other function, the different usages of Linear A inscriptions may be of some help. Most Linear A inscriptions belong to the category of accounting tablets, nodules, sealings and roundels found in the archives of Minoan palaces and houses. The tablets in particular provide (though less neatly tabulated than in Linear B) groups of syllabograms indicating 'words' or 'names' often separated from each other by means of 'word-dividers' in the form of dots or small vertical strokes that unfortunately can sometimes be confused with the sign indicating 1 unit. Usually the vertical strokes indicating units are a bit longer than the dots or small strokes indicating word dividers.

The ideograms can usually be recognized easily, because they occur mainly in solitary position, sometimes in ligature, and because they are virtually always followed by numeral and / or fraction signs. Identification becomes more difficult for us, if a sign that can be either syllabic or ideographic occurs at the end of a sequence and before a numeral. The scribe who had written the text obviously had no problem reading it correctly, because he knew what he had written, but for us it is not always that simple.

Linear A inscriptions are also found on a whole range of objects which were used for a variety of purposes such as libation tables or libation vessels, pithoi, clay vases, axe-heads, rings, pins, weight stones, seals and sarcophagi, and even on walls and frescoes. In such inscriptions ideograms and numerals are not so common, although there are exceptions, as at the beginning of a long inscription on a pithos from Epano Zakro where the wine ideogram VIN (sign 82*a*) is followed by two horizontal dashes and two vertical strokes indicating 22 units, cf. N. Platon and W.C. Brice, *Ἐνεπίγραφοι πινακίδες καὶ πίθοι γραμμικοῦ συστήματος Α ἐκ Ζάκρου - Inscribed tablets and pithos of Linear A system from Zakro*, Athens 1975, 82-83 and 156-157: P 2; cf. also J. Raison and M. Pope, *BCILL* 18, Louvain-la-Neuve 1980, 326, and 1994, 301: ZA Z 3, and *GORILA* 4, 112-113: ZA Zb 3.

NOTATION OF OBJECTS INSCRIBED WITH LINEAR A

J. Raison and M. Pope (1971, 1977, 1980 and 1994) used class W for ‘*Rondelles, pesons, plaquettes ou jetons, nodules et scellés*’ and class Z for ‘*Tous autres objets inscrits*’. For the subdivisions of these classes I have followed the new conventions for indicating the objects (other than tablets) inscribed with Linear A, as proposed by L. Godart and J.-P. Olivier in *GORILA*:

Wa	=	nodules
Wb	=	sealings
Wc	=	roundels
Za	=	stone vases
Zb	=	clay vases
Zc	=	inked inscriptions
Zd	=	graffiti on walls in stucco
Ze	=	inscriptions on stone walls (architectural elements)
Zf	=	metal objects
Zg	=	stone objects

The advantage of usage of more differentiated subdivisions is that objects belonging to the same category are placed together and can be compared with each other more easily. These new conventions do not break with the traditional indications of **W** and **Z**, but make finer distinctions possible.

CONVENTIONAL INDICATIONS

Only occasionally I have used the old notations of signs with *L*, *L'*, *Lc* and *Lm*, usually only in citations. As much as possible I have followed the conventions used by J. Raison, M. Pope, L. Godart and J.-P. Olivier. If necessary, I have sincerely tried to make a sensible choice. I plead for standard conventions to be accepted and followed by everyone working in this field.

- da* = clearly identifiable syllabic sign = sign 30 in transnumeration.
- da* = mutilated, partly legible syllabic sign. Uncertain identification.
- GRA = GRANUM = sign 42, clearly identifiable ideogram for wheat.
- GRA = mutilated, partly legible, probably GRA.
- 96 = Linear A syllabogram with unidentified phonetic value.
- 96 = *65 (= Linear B sign 65).
- 3 = 3 units clearly legible.
- 3 = possibly 3 units legible.
- 30 = 3 tens clearly legible.
- 30 = possibly 3 tens legible.
- 33 = possibly 3 tens and 3 units legible.
- 33 = possibly 3 tens legible, certainly 3 units legible.
- 33 = certainly 3 tens legible, possibly 3 units legible.
- A = fraction clearly identifiable.
- A = fraction possibly identifiable.
- ' = trace of sign, sometimes also indicated with vest. or vestigia.
- = hyphen between syllabic signs indicating one sequence.
- ⌋ = probably a hyphen, but division between signs not excluded.
- + = ligature of syllabograms or ideogram and syllabic sign;
- ± = possible ligature of syllabograms or ideogram and syllabogram.
- , = punctuation or word divider certainly identifiable.
- ⌵ = punctuation or word divider possibly identifiable.
- [] = fracture or other damage (erosion, erasure), area illegible.
- [.] = idem, area of the size of one sign illegible.
-] = fracture / damage preceding sign, sequence possibly incomplete.
- [= fracture / damage following sign, sequence possibly incomplete.
- | = edge of tablet or other inscribed object.
- [[]] = surface palimpsest, erased signs sometimes slightly visible.
- ↔ ↑ = usually after ligature, direction of reading may be both ways.
- `...` = sign or number written above the line to which it belongs.
- `...` = sign or number written under the line to which it belongs.

CHAPTER 4

SCRIPT AND LANGUAGE

When G. Pugliese Carratelli published his study in *Monumenti Antichi* 40 (1945), primacy was still given to Linear A research, primarily because the bulk of Linear B material had not yet appeared.

The Linear B texts from Knossos were published in *Scripta Minoa II*, Oxford 1952. This edition by J.L. Myres was based on the notes of Sir Arthur J. Evans. A revised edition of the Linear B texts from Knossos with photographs, transcriptions and transliterations was published by J. Chadwick, L. Godart, J.T. Killen, J.-P. Olivier, A. Sacconi, I.A. Sakellarakis, *Corpus of Mycenaean Inscriptions from Knossos, Volume I* (Incunabula Graeca Vol. LXXXVIII) – *Vol. IV*, Cambridge, London, New York, New Rochelle, Melbourne, Sydney, Roma 1986-1998.

The tablets discovered by C.W. Blegen in the palace of Nestor at Pylos from 1939 onwards, were first published by E.L. Bennett: *The Pylos Tablets. A preliminary report*, Princeton 1951. The second Princeton edition by the same author appeared in 1955, after the decipherment of Linear B: *The Pylos tablets. Texts of the inscriptions found 1939-1954*. The corpus of Linear B texts from Pylos was published by C. Galavotti and A. Sacconi, *Inscriptiones Pyliae ad Mycenaean aetatem pertinentes* (Incunabula Graeca, Vol. I), Roma 1961. E.L. Bennett Jr. and J.-P. Olivier published *The Pylos Tablets transcribed. Part I: Texts and notes* (Incunabula Graeca LI), Roma 1973, and *Part II: Hands, concordances, indices* (Incunabula Graeca LIX), Roma 1976.

The first edition of the tablets found at Mycenae in 1950 and 1952 was undertaken by E.L. Bennett and appeared just after the decipherment of Linear B: *The Mycenae Tablets*, Philadelphia 1953. J.-P. Olivier published a revised transliteration: *The Mycenae Tablets IV*, Leiden 1969.

The Linear B tablets from Thebes were published by L. Godart and Anna Sacconi, *Les tablettes en linéaire B de Thèbes* (Incunabula Graeca LXXI), Roma 1978. Later by V.L. Aravantinos, L. Godart and Anna Sacconi, *Thèbes. Fouilles de la Cadmée. Vol. 1: Les tablettes en linéaire B de la Odos Pelopidou*, Roma 2001; *Thèbes. Fouilles de la Cadmée. Vol. 3: Corpus des documents d'archives en linéaire B de Thèbes (1-433)*, Roma 2002.

The prevailing view since Evans's time had been that the Linear A and the Linear B texts were in essentially the same language. Michael Ventris also shared this view as late as May 1951 in his 7th Work-Note, 19 (cf. M. Pope and J. Raison, *Études Minoennes I*, BCILL 14 (1978), 53, note 9). In fact, the first effective steps in tackling the Minoan scripts were taken by A.E. Kober. In 'The Minoan Scripts: fact and theory', *AJA* 52 (1948), 82-103, she observed the usage of different words for 'total' in Linear A and B and explained that "*inflection of the type so noticeable in B does not seem to exist in A*". J.L. Myres included her systematic classification of the Knossos tablets according to their commodity ideograms in *Scripta Minoa II*, 77-89. Miss Kober also emphasized the danger of studying words or tablets in isolation without reference to the wider contexts with which they are associated.

Her observation that the Linear B texts contained clear evidence for grammatical inflection led eventually to Michael Ventris's decipherment. In his Work-Note 20 (June 1952) he proposed that the Linear B tablets of Knossos might be written in Greek and his first public announcements were broadcast over the air on the *Third Programme* of the BBC (cf. *The Listener*, 10 July 1952; J. Chadwick, *The decipherment of Linear B*, Cambridge, 1958, 1967², 67-68). However, the implication of Miss Kober's conclusion that Linear A and B probably reflected different languages, was either not yet widely understood or those who argued, after the decipherment of Linear B, that Linear A reflected Greek as well, or Greek affected by adstrate influence, and who saw in Linear B merely a reform of orthography, were not yet fully convinced by Miss Kober's observations. They may have thought that there could be reasons why Linear B showed more appearance of inflection than Linear A, even if it was being used for the same language, pointing to the different types of documents preserved, a different attitude to abbreviation, the far greater abundance of surviving evidence in Linear B.

In *Le Iscrizioni Minoiche (Atti dell' Accademia Toscana di Scienze e Lettere 24)*, Florence 1960, 32-128, E. Peruzzi argued in favour of an Indo-European connection, and accepting some of L.R. Palmer's suggestions with regard to a possible Luwian interpretation (see *infra*), he maintained that the morphological evidence for noun declension, meagre though it was, might indicate Greek as the language of the texts. For the Linear A word for 'total' which reads, with Linear B phonetic values, *ku-ro*, he proposed an Indo-European etymology **ger-* 'collect' (cf. Greek ἀγείρω).

For the word that was explained as ‘deficit’, Linear A *ki-ro*, he suggested an Indo-European root **(s)kel-* ‘due’, ‘owing’ (cf. Lithuanian *skeliu*). Although the evidence was put forward in a comprehensive way, one must conclude that it is too thin. For further criticism of Peruzzi’s proposals I may refer to M. Pope’s *Aegean writing and Linear A* (SIMA 8), Lund 1964, 6.

In ‘Greek-like elements in Linear A’, *Greek, Roman, and Byzantine Studies* 4 (1963), 181-211, G. Nagy offered a long list of ‘Greek’ interpretations, but in doing so he had to adopt unorthodox assumptions for Linear A orthography. He proposed that the inscription on a roundel reading (with Linear B values) *su-ni-ka* | should be read as *su NI ka* and interpreted as Greek *σῶκα* ‘figs’ written around the FIC-ideogram, cf. M. Pope and J. Raison, ‘Changing perspectives’, *Études minoennes I*, BCILL 14 (1978), 44. The possibilities of reading Greek were also considerably increased by assuming that in the orthography of consonant-clusters the ‘mute vowel’ following the first consonant could not only be the same as the vowel of the succeeding syllable (as most commonly in Linear B), but also as that of the preceding one.

One must admit that the latter orthography is sometimes found in Linear B as well, but in such cases there is always a good explanation for this rare usage. The last ‘mute’ *-a* in *wa-na-ka* = *ῥάναξ*, for instance, can only be adopted from the preceding syllable, because *k-* is the last syllable of the word. Only final *-s* of *ξ* = */ks/* is not expressed. The irregular orthography of *wa-na-ka-te-ro* = *ῥανάκτερος* is then based on the analogy of *wa-na-ka*.

V. Georgiev’s *Les deux langues des inscriptions crétoises en linéaire A* (*Linguistique Balkanique VII, Fasc.1*), Sofia 1963, is imaginative, but fails to be convincing. Georgiev states that certain interpretations of his ‘partly Greek’ and ‘partly Hittite-Luwian’ words and names, as well as his ‘Eteocretan’ interpretations, which he compares with Hittite and sometimes with Etruscan, should be regarded as working hypotheses (cf. V. Georgiev, *ibidem*, 66 and 98). One may, however, wonder how one could possibly work with hypotheses which are so uncertain and lack any coherent phonological and morphological arguments. The only consistency in his work is that his interpretations are constantly straining the evidence of Linear A orthography.

The list of personal names, toponyms and ‘functional words’ given by D.A. Was at the end of ‘The land-tenure texts from Hagia Triada III’, *Kadmos XX.1 (1981)*, 7-25, is not convincing either, since it lacks sufficiently argued phonological and morphological evidence.

On some objects which are generally regarded as cult objects some Linear A sequences appear to recur in virtually the same form. The inscriptions are usually considered to be ‘dedicatory formulas’. S.A. Xanthoudides, Μινωϊκὸν σκεῦος ἐνεπίγραφον, *Ἀρχαιολογικὴ Ἐφημερίς (1909)*, 179-196, drew attention to the fact that the same three or four signs which he noticed on a triangular ‘libation ladle’ in white marble from the site of Troullos near Arkhanes (now TL Za 1: *ja-sa-sa-ra-me*) recurred on the Dictaeon ‘libation table’ (now PS Za 2c: *ja-sa-sa-ra-me*) and on the till then unpublished Palaikastro cup (PK Za 4: *a-sa-sa-ra[-me]*).

He gathered that the variant first signs *L32* and *L52*, now read (with Linear B phonetic values) as *ja* and *a*, respectively, might prove to have approximately the same phonetic value. (Incidentally, in Linear A and Linear B studies *j-* is used in accordance with the international phonetic alphabet. This usage instead of English *y-* is partly due to the history of the subject, since Germans and Swedes were the first to work on the scripts before Ventris’s decipherment of Linear B.) Unfortunately, Xanthoudides did not succeed in identifying the last sign of the Troullos ladle with the last sign of the same sequence on the Dictaeon libation table.

In his article ‘The Minoan goddess *Asasara* - an obituary’, *BICS 8 (1961)*, 29-31, M. Pope pointed out that the epiphany of the Minoan goddess ‘*Asasara*’ was caused by some epigraphical errors by Xanthoudides in his drawing of the Palaikastro cup (fig. 6 of his article just mentioned), which fails to show any break after the fourth sign, and by Sir Arthur J. Evans’s second transcription of the Dictaeon inscription (*PM I*, fig. 467), in which he draws a pitting of the original surface as a firm dot of punctuation. M. Pope discovered by autopsy of the inscription in the Heraklion Museum (inv. no. 504) that a wrong join of two pieces of the same cup had been made and that the inscription was probably not complete. Judging by similar inscriptions which are fortunately very frequent, he concluded that the inscription on the Palaikastro cup must be assumed to have continued for at least one further syllable.