

MITTEILUNGEN

THE PARIS COLLOQUIUM ON THE DECIPHERMENT OF SCRIPTS AND LANGUAGES

This was held in the Faculty of Law at the Sorbonne on July 17th and 18th, 1973, in the general context of the 29th International Congress of Orientalists, which commemorated the 150th anniversary of the decipherment of the Egyptian Hieroglyphs by Champollion. After an opening address by L. Leclant, P. Bougé explained how historical records in cryptograms can be understood, using the example of a ciphered letter of Philip II of Spain. M. Lejeune suggested that the pitifully slow progress during the last century in deciphering the Venetian texts, despite the most favourable circumstances, may have been due to excessive reliance on Etruscan analogies. R. Lafon, whose paper was read by A. Tovar, considered that the Iberic language has some relations with an ancient form of Basque. In his own discourse, Dr. Tovar remarked on the survival of a syllabic system of writing in Spain into the First Millennium B. C., and located the creation of the Iberic alphabet on the South or South-East coast about 700 B. C. There were three studies on Etruscan: by R. Bloch on the general progress towards comprehension; by J. Heurgon on Greek, Italic and Latin loanwords in Etruscan; and by S. Faragö on the decipherment of the tablets of Pyrgi. R. Soudsky, speaking on Les 'écritures' danubiennes, considered that the tablets of Tărtăria were intrusive from the Petresti-Çotofeni level into that of Turdaş and must therefore be related to the pre-graphic symbolic signs of the Kuban Culture.

W. C. Brice illustrated some recent advances in the understanding of Minoan Linear A through analyses of the records of issues of rations, and through comparison with similar archives from early Mesopotamia. E. Laroche spoke about outstanding problems regarding the scripts and languages of Asia Minor, notably in the case of Hurrian, which was badly understood and copied by the Hittite scribes; O. Masson was sceptical about endeavours to read Carian as a form of Greek; and C. Brixhe, in an account of the Palaeo-Phrygian question, considered that a variety of Greek was spoken in early Phrygia.

Coming to the coast of the Levant, M. Sznycer gave a review of the state of comprehension of the pseudo-hieroglyphic inscriptions of Byblos and of the Proto-Sinaitic and Proto-Canaanite texts; while H. Cazelles drew attention to the Aegean and Cypriote features of the tablets from Deir 'Allā. D. Arnaud outlined some problems of transcription of Akkadian texts from Syria, in which the precise pronunciation of the syllables was uncertain; and T. Fahd described some remarkable Arab cryptographic medical texts, in which one ancient

Egyptian sign was correctly identified a millennium before Champollion.

A. Parpola told of his new work on the Proto-Indic texts, and notably of his identification of Chanhu-Daro as Partala; but B. P. Lal was sceptical of all recent claims to have made sense of this script. L. Hambis drew attention to recent work on the Khitan script, a derivative from the Chinese used to record a proto-Mongol language. L. Galand sent a paper on the decipherment of the Berber Libyan script, and J. Leclant demonstrated the recent striking progress in recording and codifying the Meroitic inscriptions.

From the New World, V. de la Jarra reported on her understanding of the Inca quipus, and J. Soustelle presented a lucid account of the transition from pictography to phoneticism in Aztec writing. J. Galarza and A. L. Vollemaere read general papers on present understanding of the Aztec and Inca scripts, and G. Cullmann and A. Lentin spoke of the value of statistics and computers in the work of decipherment.

During the proceedings, E. Masson read a tribute to Michael Ventris on the occasion of the twentieth anniversary of his decipherment of Linear B.

This constructive colloquium was efficiently organized by Professor Leclant, and among the large and appreciative audience it was a special privilege to see the veteran authority on the history of writing, Marcel Cohen.

WILLIAM C. BRICE

THE ROYAL ASIATIC SOCIETY SESQUICENTENARY SYMPOSIUM ON 'THE UNDECIPHERED LANGUAGES'

The sessions were held at the School of Oriental and African Studies of the University of London, between July 25th and 27th, 1973. Professor I. J. Gelb, who was regrettably unable to attend, sent a stimulating introductory paper on methods of decipherment. Sir Max Mallowan gave an address on the archaeological background of the earliest writing in Iran, in which he assessed the new evidence from Baluchistan and Mekran regarding early trade and the diffusion of writing. Professor P. Meriggi summarized his progress towards the classification and internal analysis of the account tablets in the Proto-Elamite script; and Dr. W. Hinz, speaking on problems of Linear Elamite, described how he has arrived at values for fifty-eight signs on the monumental inscriptions, including the silver vase from Persepolis which he accepted as genuine. In a comment, Professor Cameron of Chicago drew attention to impressive resemblances recently noticed between the Dravidian and Elamite languages. Finally, on the first day, Professor J. Leclant presented an entertaining account of the proceedings of the recent Paris Colloquium on the Decipherment of Scripts in the setting of the 29th International Congress of Orientalists.

The second day opened with a comprehensive review by Professor A. Kammenhuber of the linguistic situation in Anatolia in the Second Millennium B. C. Dr. R. D. Barnett amassed the records in the Urartian hieroglyphic script, in which over a hundred signs can now be recognized: this script was perhaps in use as early as the fourteenth century B. C., and may have been a Hurrian adaptation of a Hittite system. A happy conclusion that emerged from papers presented on new readings in Hieroglyphic Hittite was that Professor G. Neumann on the one hand and Professor A. Morpurgo-Davies and Mr. J. D. Hawkins on the other, working quite independently, had reached a number of similar and promising results. Professor O. Carruba reviewed the present state of understanding of the later Anatolian languages, and Professor R. Gusmani spoke more particularly of recent research on Lydian.

The morning of the 27th was devoted to Cretan and Cypriote studies. Mr. J. Chadwick from the Chair gave a general account of the documents in the Minoan Linear Script A. Professor C. H. Gordon presented powerful evidence for his recognition of an Eteocretan Semitic dialect in the second Dreros bilingual inscription. Dr. Emilia Masson, in a detailed and persuasive paper, described how she has come to recognize the Hurrian language on the Cypro-Minoan tablets. Mr. J. T. Hooker then gave his reasoned conclusions about assigning a limited number of syllabic values to the Linear A signs.

The final session, in the afternoon, was concerned with the Indus Script. Sir Mortimer Wheeler from the Chair presented some vivid and amusing recollections of his work in the area. Professor B. P. Lal said why he was sceptical of recent claims of decipherment, and made constructive proposals about the direction of writing and about survival of the script into the First Millennium B. C. Mr. J. V. Kinneir Wilson then put forward an identification of a formula for weighing, basing his arguments on Sumerian usage. Finally, Dr. Asko Parpola developed his thesis of the astrological significance of a high proportion of the Indus texts. This session included a lively discussion. Professor E. H. S. Simmonds gave the closing address.

Formal receptions were arranged by the Foreign Office and by the Royal Asiatic Society, which displayed a special exhibition of its historical records and souvenirs.

WILLIAM C. BRICE

DOES MINOAN *KU-NI-SU* MEAN 'GRAIN'?

The decipherment of Linear B in 1953 by Michael Ventris and John Chadwick demonstrated, to the amazement of many, that this script concealed an archaic form of Greek. The assumption has been made, and continues to be made

by nearly all who study the problem of the early Aegean scripts, that Linear B values may be used for signs of similar shape in Linear A. Though the two scripts contain different languages, a large number of personal names appear in both the A and B documents¹, belonging presumably to native Minoans. The data from these names tend to confirm this policy of transferring the values, as do Near Eastern analogies².

One of the most promising identifications in the work of Cyrus Gordon, who believes that Minoan (Linear A) is a Semitic dialect, is that of Linear A *ku-ni-su* with Akkadian *kunāšu*, *kunnišu*, 'emmer wheat', *kanāšū*, *kanāšuttu* 'Gartengewächs'; and Aramaic (consonantal) *kwni*³, 'spelt'.³ What makes this so tempting is the presence of an ideogram generally conceded to mean WHEAT immediately following *ku-ni-su* on both sides of the tablet HT (Hagia Triada) 86. Even Mr. Gordon's strongest critics do not challenge the identification, only the 'Semiticity' of the word. Thus Jonas C. Greenfield writes "we have no proof of the ultimate source of the [personal] names. The same is true of the 'virtual bilingual' in which *ku-ni-su* is identified by the determinative for grain-cereal. We do not have a Greco-Semitic equation but a *Kulturwort*."⁴

This identification is, however, open to doubt. The word *ku-ni-su* occurs five times at Hagia Triada on three tablets: HT 10a 1; 86a 1—2; 86b 1—2; 95a 3; and 95b 3. On 10a it is the heading of the tablet. On 86 it is twice linked with the WHEAT ideogram, but does this indicate an equivalence of meaning? I think not.

The tablet 86a reads as follows, using the Linear B values for similar Linear A symbols:⁵

<i>a-ka-ru</i>		
<i>ku-ni-su</i>	WHEAT + Lm'3	20
<i>sa-ru</i>		20
<i>di-de-ru</i>		20
<i>qa-rja-wa</i>		10
<i>a-du</i>		
<i>da-me</i>	WHEAT + Lm19	20
<i>mi-nu-te</i>		20

¹ Simon Davis, *Decipherment of the Minoan Linear A and Pictographic Scripts*, Johannesburg 1967 has a list on page 12; see also John Chadwick, *The Decipherment of Linear B*, Cambridge 1967, 154.

² See for example I. J. Gelb, *Old Akkadian Writing and Grammar*, Chicago 1961². Akkadian used the Sumerian signs for the same or similar sounds in Akkadian, but there were some exceptions such as the use of Sumerian *PI* for Akkadian *wa/wi/wu*.

³ Gordon, *Evidence for the Minoan Language*, Ventnor NJ 1966, 26; Bezold and Götze, *Babylonisch-Assyrischen Glossar*, 145

⁴ Jonas C. Greenfield, *Journal of Biblical Literature* 86, 1967, 241—244, specifically p. 242

⁵ This is a transliteration of the tablet as presented by Brice, *ILA Pl. VIIa/VII*.

The same words occur again on 95a and b and *da-me* is even preceded by the WHEAT ideogram on the same line. It is clear that if *ku-ni-su* is a word for grain, then so is *da-me* and probably *sa-ru*, *di-de-ru*, *qa-rja-wa*, and *mi-nu-te* as well. It is much easier to explain them all as personal names; they are receiving or paying wheat or grain from or to the place. The attached fraction tells the size of the measure; some give (or receive) twenty of it, one ten.

Besides the reasons internal to the tablet, there are two other good reasons for believing *ku-ni-su* and the others to be personal names. The first is the infrequent occurrence of the names, as compared to the constant repetition of the WHEAT ideogram. In his introduction to ILA, Mr. Brice remarks⁶: "since these names are so numerous and recur so seldom, it is clear that they must be names of persons..." The limited occurrences of *ku-ni-su* and its fellows thus favors their being personal names and not names of commodities.

The second reason is that several definite personal names at Knossos, belonging to the large 'non-Greek' group there, are clearly akin to some Hagia Triada names, including three on HT 86 alone. Thus we read:

Linear A	Knossos Linear B ⁷
<i>qa-rja-wa</i>	<i>qa-rja-wo</i> anthrop. Ce 50.1 a
<i>di-de-ru</i>	<i>di-de-ro</i> X 1504
	cf. <i>di-de</i> anthrop. B 799.4
<i>da-me</i>	<i>da-me</i> (?) anthrop. As 1516.3

Since it is difficult to imagine a number of Minoans with names like 'wheat' and 'barley', I think it is safe to discount any possible connection between *da-me*, *ku-ni-su* and the other names with any word in any language meaning 'wheat, grain, cereal.' As for the name *ku-ni-su*, it may possibly contain an Anatolian root which can be seen in the Hieroglyphic Hittite *ku-ku-ni* (with reduplication)⁸ and the Hittite *kukunis*.⁹

This mistaken identification of *ku-ni-su* as wheat points out one of the difficulties of reading Linear A: that almost all the words are personal names, so that one does not have enough place names and common nouns to be able to make generalizations about the language. More work is needed on the personal names.

JON-CHRISTIAN BILLIGMEIER

⁶ Brice, ILA 4

⁷ Anna Morpurgo, *Mycenaeae Graecitatis Lexicon*, Rome 1963 sv. Texts revised in accordance with Chadwick, Killen and Olivier edd., *The Knossos Tablets*, 4th ed., Cambridge 1971 (KT 4) — except for *da-me* (?), which Morpurgo derives from KT².

⁸ Ignace J. Gelb, *Hittite Hieroglyphs III*, Chicago 1942, 9

⁹ Gelb, *Ibid.* 9; written *ku-uk-ku-m-ni-ii*, since double writing of stops is used to indicate voicelessness, one is justified in spelling the name with only one *k*.

NUMERICAL FRACTIONS IN THE LINEAR SCRIPT A

In the *American Journal of Archaeology* 77, 1973, 65, Jon C. Billigmeier criticizes my paper dealing with numerical fractions in Linear A, (*Kadmos* 10, 1971, 35—51). He rejects the suggestion, originally made by Brice, that the scribe of HT 9 committed an error in adding up the total. I retained this possibility in the first instance as an alternative only, but, following on a second assumption (which he also rejects), it turned out to be correct. This second assumption of mine related to the construction of HT 8 and, with respect to that text, Billigmeier had to make two assumptions: first, that the two notations at the end of that text of the symbol Lm 9 were added later (it is not clear for what purpose) and, therefore, did not enter into the addition of the total; second, that in the Linear A system the value of a composite fraction was obtained by multiplying its component symbols.

Although this second assumption is of interest per se, it can be demonstrated that it leads to unacceptable results. For instance, the symbol Lm 17 should, according to the Billigmeier system, represent the value of either $7/12$, or $1/12$, or $-1/4$, which is impossible. The first two values are, again in his system, to be allocated as well to Lm 15, and Lm 4 respectively. Such collision of symbols for the same fractional value shows the system to be based on false assumptions; and it is regrettable that Billigmeier did not pursue the consequences of his assumptions far enough, otherwise he would have arrived at that same conclusion.

DANIËL A. WAS

NOTES SUR LA STÈLE TRILINGUE
DU LÉTOON DE XANTHOS

I

La mission archéologique du Létoon de Xanthos avait inscrit au programme de sa douzième campagne le dégagement de la terrasse sur laquelle s'élevait le temple dorique B, daté, dans ses éléments essentiels, de la seconde moitié du second siècle A. C. (voir provisoirement H. Metzger, *Rev. Arch.*, 1970, 308, fig. 1). Au cours de cette opération elle a été conduite à creuser à l'Est du temple, sous les éboulis de la falaise qui marquait la limite de la terrasse, et à dégager, le 31 août 1973, une stèle de calcaire local, couchée le long de l'assise inférieure d'un mur plaquant le rocher. La stèle, L. 5884, portant au sommet et à la base une

moulure de type courant (tore, cavet et listel), a lm, 35 de hauteur, 0m, 57 de largeur et 0m, 30 d'épaisseur. Elle est gravée en lycien sur l'une des faces, en grec sur l'autre et en araméen sur l'un des petits côtés, le dernier côté demeurant lisse. Le tenon qui avait permis d'encastrer la stèle dans sa base avait été rigoureusement arasé et la moulure rabattue à la partie inférieure de la face lycienne. Bien que nous ayons exploré en 1973 toute la zone comprise entre le temple B et la falaise et, antérieurement, les régions s'étendant au Nord, à l'Ouest et au Sud du temple, nous ne disposons d'aucune indication pour situer la base du monument. L'excellent état dans lequel nous sont parvenues les faces incrites, la lycienne en particulier, nous donne néanmoins à penser que la stèle trilingue n'a pas été soumise à un long déplacement, pas plus qu'elle n'aurait été exposée longtemps aux intempéries. Nous proposerons donc de la mettre en relation avec des restes de constructions lyciennes reconnues à l'intérieur du temple B et peut-être avec le noyau primitif de l'édifice E, contemporain de l'orthostate ou du socle portant une dédicace bilingue à Artémis (Rev. Arch. 1970, 311, fig. 6). Dans l'état actuel de l'exploration du site il paraît impossible de faire le lien entre le petit sanctuaire qu'évoque la stèle et le Létoon.

HENRI METZGER

II

Les fouilles dirigées par Henri Metzger, depuis 1962, au Létoon de Xanthos, ont produit à ce jour six monuments inscrits en écriture et en langue lyciennes. Nous en donnons la description sommaire, en attendant la publication complète, que nous préparons.

1. L. 266: dédicace d'Arsama.

Deux inscriptions lyciennes mutilées à gauche:

- (a) dédicace d'Arsama (un Perse), 4 lignes et demie;
- (b) inscription lycienne postérieure à (a), 3 lignes.

2. L. 271: dédicace d'Arbinas à Artémis.

Base mutilée, portant, sur une face, un poème grec, sur l'autre une inscription lycienne de deux lignes: dédicace à *Ertēmi* (Artémis) par *Arbinas*, le même personnage, d'après sa généalogie, que nomme la grande stèle de Xanthos, TL 44 a 25; cf. déjà Bull. Soc. Ling. 62 (1967), 56.

3. L. 5146: graffite sur un bord de vasque:

] ?*nida ubet*{e

Cf. BSL, *ibidem*.

4. L. 5298: dédicace de Démokleidès.

Dédicace, bilingue, à Artémis: 3 lignes de grec *suivies* par trois lignes de lycien.

Voir la photographie, incomplète, chez H. Metzger, *Rev. Arch.* 1970, 311, fig. 6.

5. L. 5743: fragment de stèle bi- ou tri-lingue.

Bloc d'angle portant, sur une face, 5 lignes mutilées en araméen, sur l'autre face, le début de 4 lignes en lycien (7 lettres).

6. L. 5884: stèle trilingue de Pixodaros.

Version lycienne: 41 lignes complètes; version grecque: 35 lignes complètes; version araméenne: 27 lignes (deux ou trois lettres écrasées).

Etablissement à Xanthos (= *Arñna*), sous Pixodaros (= *Pigesere*), satrape de Lycie (= *Trñmis*), d'un culte du dieu Basileus Kaunios (= *χñtawata χbidēñni*) et d'Arkesimas (= *Ar??azuma*). Sacerdoce confié à Simias (= *Seimiya*) et à ses proches. Sacrifices mensuels et annuels. Imprécation contre un éventuel violateur, responsable devant Létô (= *ēni qlahi ehbiyehi pñtrēñni*), ses enfants, et les Nymphes (= *Eliyāna*).

La version araméenne donne la date achéménide.

EMMANUEL LAROCHE

CORRIGENDUM

With reference to the article by Christiane Sourvinou-Inwood, On the lost 'boat' ring from Mochlos, *Kadmos* 12, 1973, 149—158, in the first line of the asterisked footnote on page 149 for 'Prof. J. Barnes' read 'Mr. J. Baines'. The error was editorial, and the Editor offers apologies to all concerned.

W. C. B.