A LINEAR A STONE LIBATION TABLE FROM THE DICTAEAN CAVE*

GARETH OWENS / HERAKLION

INTRODUCTION
This Linear A stone libation table from the Dictaean cave at Psychro (PS Za 2) has now been studied for a century and has been largely reconstructed from three fragments, two of which are now in the Ashmolean Museum in Oxford, and one fragment is in the Louvre in Paris. This inscription, like exploration in the Dictaean cave itself, has a long history spanning the whole century of archaeological exploration in Minoan Crete.

It is known that several travellers visited the Dictaean cave at Psychro before systematic excavations began. The Florentine monk Buondelmondi visited the cave in 1415, followed by a whole host of visitors, until in 1866 the Italian archaeologist Halbherr and the Cretan antiquarian Joseph Hatzidakis visited the cave, collected surface finds and tentatively identified the cave as Dictaean, the

* I would like thank Ann Brown of the Ashmolean Museum for her kind assistance while PS Za 2 was re-examined. I would like to express my gratitude to the British School at Athens, the Hellenic Society and the Institute of Classical Studies for their assistance in carrying out a study of Minoan and Mycenaean inscriptions in English Collections during 1991-92 while I held a post as Lecturer in Linear B at the ICS. I also wish to record my gratitude to Drs Kritzas and Karetsou of Heraklion Museum. I sincerely thank Kalliopi Nikolidaki for her assistance in the preparation of this article. This article is respectfully dedicated to the memory of Arthur Evans, Michael Ventris and James Hooker.

1 See G. Panagiotakis, The Dictaean Cave, 1988, for a thorough general introduction to this important site.
mythological birthplace of Zeus.

In 1894 Arthur Evans visited Crete for the first time in his search for written documents of the Aegean Bronze Age. He visited the Dictaean cave in 1894, 1895 and 1896. In 1896 he acquired the first part of the inscription (PS Za 2 b) which is now in the Ashmolean Museum. In 1897 Evans’ travels took him elsewhere and the French archaeologist Demargne found another piece of the libation table (PS Za 2 a) which is now in the Louvre. In 1899 the British archaeologist Hogarth began the first excavation in the cave on behalf of the British School at Athens. In 1900 Evans commenced excavations at Knossos and this undertaking was to occupy him for the rest of his life. In 1923 Evans bought the third part of the inscribed libation table (PS Za c). It is believed that this third part was removed from the cave before Hogarth commenced excavations in 1899.

**PUBLICATION HISTORY**

This Linear A inscribed libation table was discovered piece by piece at the end of last century and has been the subject of study and publication throughout this century.


PS Za 2 c — Ashmolean AE 1 — Bottom Right Hand Fragment. See A. Evans “Further Discoveries of Cretan and Aegean Script with

---

2 There has been some confusion since classical times concerning the identification of the two holy mountains of Crete, Ida and Dikte. Present day Ida is Psiloriti — The Tall One — above Anogheia and present day Dikte is above Lassithi, but this may not always have been the case. For a discussion of these onomastics see C. Crowther, “A Note on Minoan Dikta”, BSA 83, 1988, 37-44, J.T. Killen, “Piety begins at Home”, Tractata Mycenae, 1987, 163-177 and G. Owens, “Minoan DI-KA-TA”, Kadmos 32:2, 1993, 156-161.


One hundred years after the discovery of the first part of this inscription it is now opportune to reconsider this important Linear A inscription and its possible reconstruction. This is now possible as a result of the systematic publication of the GORILA corpus 1-5 (1976-1985) which allows comparisons to be made between Linear A inscriptions and as the result of a thorough study of this inscription in the Ashmolean Museum4.

EPIGRAPHIC STUDY

Following the GORILA classification system the Psychro inscription can now be transcribed as:
PS Za 2 a ]-27-28-44
b 59-06-28-A301-37 . ]-
c ]57-37 , 57-31-31-60-13 ,
which can be transliterated as5:
PS Za 2 a
b TA-NA-I-A301-TI . ]-
c ]JA-TI , JA-SA-SA-RA-ME ,
There is a trace of a sign preceding ]-27-28-44 on part a and

4 The GORILA corpus (1976-1985) has made it possible for the Linear A inscriptions to be systematically studied and for conclusions to be drawn. The importance of a reliable publication for serious study cannot be stressed too much as should be clear from the half-century preceding the decipherment of Linear B.

following 59-06-28-A301-37. [ - ] on part b. A study of the libration table shows that this sign is probably to be reconstructed as AB 55 NU. The inscription as it now stands can be read as
\[ \text{I-RE-I-KE} \]
\[ .2 \text{ TA-NA-I-A301-TI . NU[ } \text{JA-TI} \text{ . JA-SA-SA-RA-ME} . \]
An epigraphic study of this inscription using comparanda from GORILA 4 (1982) and GORILA 5 (1985) allows the following observations and tentative reconstruction to be offered.

i) \[ ]-27-28-44 \[ ]-RE-I-KE

The only textual similarity to this sign-group is to be found on the inscribed pin from Knossos KN Zf 31 where the combination of signs AB 28 and AB 44 is found twice.

ii) 59-06-28-A301-37 . 55[ \[ TA-NA-I-A301-TI . NU[ \]

This sign-group can be compared to a number of sign-groups in Linear A which are found in Linear A and which are found on stone libation tables. These are:

<table>
<thead>
<tr>
<th>STEM</th>
<th>TA-NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUFFIX</td>
<td>-I-A301-U-TI-NU</td>
</tr>
<tr>
<td></td>
<td>-I-A301-TI</td>
</tr>
<tr>
<td></td>
<td>-SU-TE-[ ]-KE</td>
</tr>
<tr>
<td></td>
<td>-RA-TE-U-TI-NU</td>
</tr>
<tr>
<td></td>
<td>TA-NU-NI-KI-NA</td>
</tr>
</tbody>
</table>

Incomplete Related Sign Groups IO Za 11

6 OCCURRENCES 5 DIFFERENT WORDS

The closest examples to the sign-group on PS Za 2 are those from louktas IO Za 2.a-b TA-NA-RA-TE-U-TI-NU and IO Za 6 TA-NA-I-A301-U-TI-NU. Both of these terminate with -TI-NU which is what would be read on PS Za 2 if the word divider was not present.

In view of the close textual similarity with other inscriptions of the Minoan Libation Formula it must be seriously considered that this dot/word divider is actually a scribal mistake and that the sign-group continued with sign -NU, thus giving TA-NA-I-A301-TI-NU on PS Za 2 as on the inscriptions from louktas.

Of course to claim to identify a scribal mistake does sound convenient, but such mistakes are known, e.g., JA-NA-KI-TE-TE-
DU-PU2-RE on PK Za 8 for JA-DI-KI-TE-TE-DU-PU2-RE particularly when the physical similarity between the two signs concerned (AB 06 and 07) is borne in mind. The apparent mistake on PS Za 2 is however of another kind. It seems as if the scribe made the word-divider having forgotten the last sign, which was then added afterwards, but alas too late and the epigraphic mistake had already been made. The nature of the medium employed, i.e., a stone libation table meant that such mistakes could not be rectified and had to be lived with, for a stone inscription can not be corrected as can a clay tablet or other means of writing.

iii) 57-37, 57-31-31-60-13 JIA-TI, JA-SA-SA-RA-ME.

The inscription on this fragment consists of one complete and one incomplete sign-group. The complete sign-group JA-SA-SA-RA-ME is well documented in Linear A and is the most common term of the Minoan Libation Formula. The examples of this are:

STEM A/JA-SA-SA-RA-
SUFFIX -ME IO Za 6, Zb 10, Za 12, 16, PK Za 11 b-c, PL Zf 1, PR Za 1c, PS Za 2.2, TL Za 1.6
-MA-NA KN Za 10 a-b
VARIANTS A-SA-MU-NE ZA Zb 3.1 JA-SA-SA-RA-A-NA-NE KN Zc 7.2
JA-SA-A321[ IO Za 7 A-SA MA Wc 5, Zb 8, SA Wa 1, Wc 2
RI-QE-TI-A-SA-SA-RA-A325 PO Zg 1
Incomplete Related Sign-Groups PK Za 4, 8, 12.b, 14, IO Za 2.b-c, 8, 9, THE Zb 4, SY Za 1

27 OCCURENCES 7 DIFFERENT WORDS

The incomplete sign-group on the left of this fragment reads as JIA-TI a combination of signs not otherwise found in the Linear A corpus. A suggestion for the possible identification of this sign-group must await a tentative reconstruction of the complete

---

6 See L.R. Palmer, "Luwian and Linear A", Transactions of the Philological Society, 1958, 75-100, who along with others identified this term as a deity; and also see M. Pope, "The Minoan Goddess Asasara: an Obituary", BICS 8, 1961, 29-31, who may have been premature in preparing an obituary for the Minoan Goddess. See also D. Matsas, "Samothrace and the Northeastern Aegean: The Minoan Connection", Studia Troica I (1989) pp. 159-180, for the recent Minoan inscriptions from this island related to the sign-group A/JA-SA-SA-RA-ME.
inscription.

A TENTATIVE RECONSTRUCTION - FIGURE 2

So far two sign-groups have been identified with certainty on this inscription, i.e., TA-NA-I-A301-TI-NU and JA-SA-SA-RA-ME. A study of the physical pieces of the stone libation table demonstrated how many signs may be missing according to the following methodology, utilizing the extant word dividers.

TA-NA-I-A301-TI . = 5 signs covering 7.5cm. = 1.5cm per sign
. JA-SA-SA-RA-ME . = 5 signs covering 8.0cm. = 1.6cm per sign

Average space taken by each sign on line 2 of PS Za 2 is 15.5cm divided by 10 = 1.55cm. The lacuna between the word-divider on part b and the first word-divider on part c is calculated as 11.2cm, which when divided by 1.55cm per sign suggests approximately 7 signs between these two word-dividers. If there was space for 7 signs between TA-NA-I-A301-TI . and . JA-SA-SA-RA-ME . then that number can be further reduced by taking into account the proposed signs for which there is some evidence. From the 7 signs between these two complete signs can be excluded )JA-TI . (i.e. 2 signs) as well as . NU[ (i.e. 1 sign) and a word-divider . (i.e. 1 sign) between the first and second sign-groups on this inscription. Thus 4 signs can be excluded from the lacuna, leaving just 3 signs to complete the inscription. To progress further it is necessary to consider two other complete Linear A inscriptions which consist of three terms, of which the first is related to TA-NA-etc. and the last to A/JA-SA-SA-RA-ME. These inscriptions are given below.

PS Za 2

1 1
2 TA-NA-I-A301-TI-NU[ ]-RE-I-KE

IQ Za 6


PR Za 1

Is it a co-incidence that a very strong textual similarity can be seen between these three inscriptions? Given that similarity it is tempting to reconstruct the missing three signs from PS ZA 2 as:

1) J-RE-I-KE

This would identify the missing word as SE-TO-I-JA-TI, a sign-group only otherwise known in Linear A as SE-TO-I-JA on PR Za 1, with the final -TI on PR Za 2 being admittedly difficult to explain. The sign AB 37 TI occurs 86 times in Linear A sign-groups, 10 times in initial, 32 times in medial and 44 in final position. The high preference of TI for final position in Linear A may suggest something akin to the suffix -de in Linear B, i.e., a suffix added to toponyms. This is perhaps borne out by sign-groups in Linear A which occur both with and without -TI, e.g., 57-81 JA-KU (MA 2b.2) and 57-81-37 JA-KU-TI (KN 1a.1). This suffix may mean to or from SE-TO-I-JA.

The sign-group se-to-i-ja was also frequently recorded in Linear B and has now been identified on a combination of archaeological and textual grounds as being at Archanes, the important, possibly palatial, site at the base of Mount Iouktas at a 1-hour walk from Knossos. It is also of note that Mount Iouktas itself is likely to have been the original Dikte, as indicated by the term JA-DI-KI-TU/Dikte/Iouktas on IO Za 2 from this focal point of Minoan religion.

**A TENTATIVE INTERPRETATION**

Having attempted a tentative reconstruction of this inscription, it is now opportune to consider a tentative interpretation, based on an understanding of each term which constitutes the Minoan Libation Formula and comparison with other textually similar inscriptions.

---

There are four words preserved on this inscription from Psychro, two complete, one reconstructed and one incomplete. The words are considered below.

]RE-I-KE
As stated above, this incomplete word only has comparanda on the inscribed pin KN Zf 31 from Knossos and no interpretation can be attempted.

TA-NA-I-A301-TI-NUI.
This term of the Minoan Libation Formula has been identified as a probable verb, based on the root *ten- with the meaning of stretch out, perhaps here to supplicate. This is a possibility when the extended stance of the devotee is considered as shown by votive figurines from Minoan Crete, including the Dictaeae cave itself.

SE-TO-I-] JA-TI
This word has been reconstructed and has been identified with the important settlement of Archane.

JA-SA-SA-RA-ME
This term has been identified as a female deity, probably Asasara/ Ishassara/Ishtar/Artae. This is the most common term of the Minoan Libation Formula and probably denotes to whom the libation table and offerings were dedicated.

8 See G. Owens, "Evidence for the Minoan Language (1): The Minoan Libation Formula", Cretan Studies 5, 1996, 163-206, for a full discussion and linguistic interpretation of the constituent terms of the Minoan Libation Formula. The working hypothesis is that the Minoan language, as read by transferring sound values from Linear A to Linear B, reveals evidence of an Indo-European nature. The two complete words on the Psychro inscription, i.e. TA-NA-I-A301-TI-NUI, and JA-SA-SA-RA-ME, are Terms G and C respectively of the Minoan Libation Formula.

CONCLUSION

Having suggested a tentative textual reconstruction and interpretation for this inscription based on Linear A comparanda of the Minoan Libation Formula and on a physical re-examination of the fragments of this stone libation table, the following hypothesis is here put forward. The comparanda for the textual reconstruction of PS Za 2 are KN Zf 31, PR Za 1 and IO Za 6, all of which are non-administrative, probably religious, inscriptions on hard material from the North Central area of Crete, i.e., in the Greater Knossos/Archana region, where SE-TO-I-JA is now believed to have been located. It is possible that the inscribed libation table from Psychro was placed there by a Minoan adorant from Archana or from Iouktas, Minoan Diakte itself. The Minoan inscription may read “Dedicated from SE-TO-I-JA(Archna) to JA-SA-SA-RA-ME (Astarte)”. 
7) A LINEAR A STONE LIBATION TABLE FROM THE DICTEAN CAVE

FIGURE 1

PS Za 2 a+b+c (after Boardman)

FIGURE 2

PS Za 2 INSCRIPTION (after GORILA 4)
7) A LINEAR A STONE LIBATION TABLE FROM THE DICTAEAN CAVE

FIGURE 3

PS Za 2
1
2

PR Za 1

IO Za 6

(after GORILA 4)