

THE PHAISTOS DISC

Abstract.

The text of the Phaistos Disc has not been deciphered in spite of many efforts. In this trial the assumption will be that the language of the text is Hittite. I have found Hittite words for the picture symbols at the disc. The picture symbol represents the first syllable in the corresponding Hittite word. A list of syllables appears and it can be read as a Hittite text. The text appears to be instructions from a priest to other priests how to act by a cult beverage.

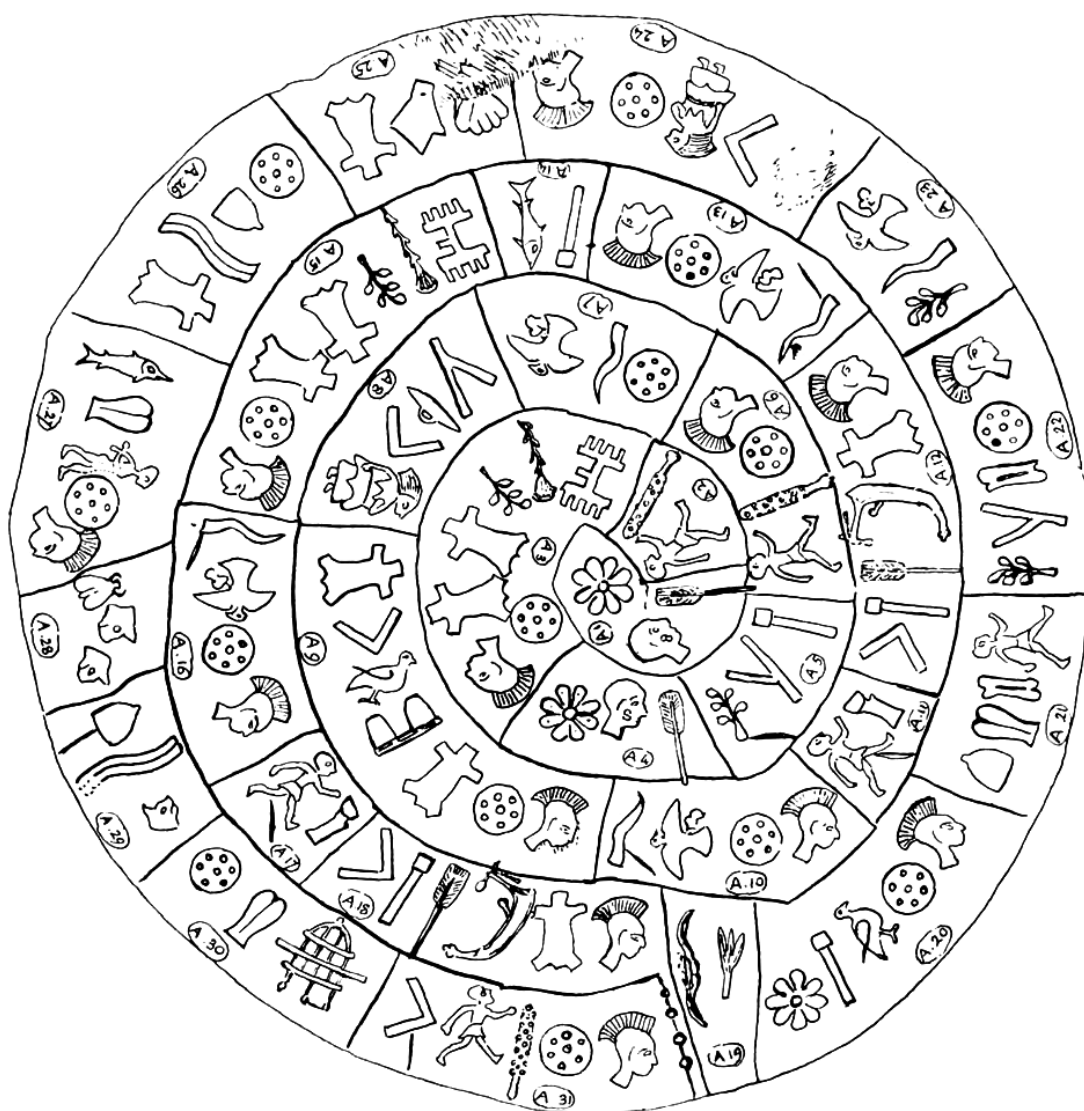


FIG. 1. The Phaistos Disc side A with numbering of the groups (Olivier 1975).

INTRODUCTION

Ever since the Phaistos Disc was discovered one hundred years ago, it has captured the imagination of amateur and professional archaeologists. Hundreds of ideas for interpretation of the disc's signs have been published. Attempts have been made to compare the script with the other Cretan scripts Linear A and B. T. Timm has tried that, and assumed that the reading direction is from right to left (Timm 2008). K. Aartun has made another serious work, where he found Semitic words for the signs and a reading from left to right (Aartun 1992). None of the efforts have led to a meaningful text. Many scholars believe that deciphering is impossible because only one text is found (Eisenberg 2009).

Originally I am a mathematician, but I have studied prehistoric picture symbols for many years (Rasmussen). I have seen that the picture symbols at the Phaistos Disc are very clear. It is obvious which object a sign represents. Other scripts are made by drawing, carving or pressing with a wedge. The signs at the Phaistos Disc were made by pressing pre-formed stamps into a disc of soft clay. Later the disc was baked at high temperature. Furthermore, all the objects are well known from the daily life of the time of the disc. In that way this script would be possible to read for everyone, including illiterate people.

Since we don't know in which language the text is written, we have to examine more possibilities. Surprisingly, the possibility of Hittite has never had a profound examination. The first task is to find the name for the depicted object in the adopted language. The first syllable in the name will be the pronunciation of the sign. Then hopefully the sequence of signs will be meaningful in the adopted language. In 2006 I carried out this examination of the Hittite possibility and put it on my homepage in Danish (Rasmussen). Then I consulted N. P. Skøtt Jørgensen, who is an expert in Hittite. I am very grateful for his comments to my deciphering. Now I would like to publish my interpretation and make it open for discussions and improvements.

THE FIND

The Phaistos Disc was discovered 1908 in the basement of the palace-site of Phaistos on the south coast of Crete. The disc was found in the ruins of the old temple called old palace. The old temples of Crete were destroyed by earthquakes about 1750 BC and new temples were built on top of them. That gives us a probable dating of the Phaistos Disc around 1750 BC. The Old Palace Period 1900-1750 BC marks the first European civilization. The temples were religious and economic centres in towns that controlled the agricultural areas. The period is the Middle Bronze Age, but bronze was not used yet in this area, only copper. Tablets with writing in Linear A script have been found. In fact a Linear A tablet was found beside the disc. Also, for writing on seal stones and tablets, a hieroglyphic script was used. The hieroglyphs have nothing in common with the figures on the Phaistos Disc. It remains unknown which language either Linear A or hieroglyphics represents. Some linguists have proved that this language, Minoan was an Indo European language.

The disc is about 15 cm in diameter and uniformly just over 1 cm thick. The inscription was made by pressing pre-formed hieroglyphic "seals" into the soft clay. The seals probably were made of metal, since other materials wouldn't have the details. After drying, the disc was baked at high temperature. There are a total of 241 signs on the disc. The signs are divided in groups by scratched lines. There are from two to seven signs in each group. The groups probably represent words. There are 31 groups at side A and 30 groups at side B.



FIG. 2. The Phaistos Disc side B with numbering of the groups (Olivier 1975).

WHY HITTITE?

In the Bronze Age the south and western parts of Anatolia were populated with people who spoke Anatolian languages such as Luwian, Lycian, Lydian, Carian and Hittite. The Anatolian languages are extinct. Linguists have found that Minoan belonged to the Anatolian language group (Drews 2001). This group constitutes the oldest branch of the Indo-European language tree – separated from the main group of other Indo-European languages ca. 6000 BC (Shevoroshkin 1990). Probably the two Proto Indo-European groups (E and A) were separated in the cold period 6200-5800 BC and lived in different parts of the Anatolian or Caucasian areas. In the following warmer period, the population was growing and new areas became habitable. The proto group E of the main Indo Europeans immigrated to Europe with their farming culture. Archaeologists have found that Crete was populated from Anatolia about the same time. It is possible that the Anatolian languages including Minoan were generated from the proto group A of Anatolian Indo-Europeans.

The only reason to choose Hittite in preference to the other Anatolian languages is that we know this language better from the many inscriptions that have been found. About 1900 BC the Assyrians had merchants in the town Kanesh near the modern town Kayseri in Turkey. The merchants brought

their Acadian cuneiform script. This syllabic script was Semitic, but could be used to write the Anatolian language spoken in Kanesh. The town was called Nesa in the local dialect and the language was called Nesili. The Hittites, who spoke the non Indo European language Hatti, took the power of parts of Anatolia already before 2000 BC. Hattusilis I became king of the Hittite kingdom ca. 1650 BC. He brought scribes from Nesa to the Hittite Capital and introduced Nesili as the written language of the Hittites. Many texts have been found in the Hittite Capital from the period 1650-1200 BC. The language is called Hittite, but is in fact Nesian. Hittite has a considerable number of Acadian words, but they are uninteresting for us, when we want to study Anatolian.

Place names show that Luwian was spoken in the interior areas of Anatolia. The Luwian inscriptions are found at stone slabs, monuments and seals 1300-600 BC. The script is syllabic with picture symbols called hieroglyphs. Hieroglyphic Luwian was used in the Hittite Empire in the period 1400-1200 BC in addition to Hittite cuneiform script. After the fall of the Empire, no evidence of Luwian existed for two hundred years. Then new "Neo-Hittite" city-states appeared in Southern Anatolia and Northern Syria, and they left many Hieroglyphic Luwian inscriptions in the period 1000-700 BC. The rulers of these cities were in fact ethnic Luwians but were related by blood to the Hittite aristocracy.

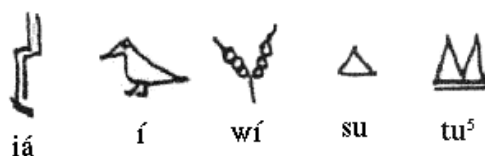


FIG. 3. Luwian hieroglyphs that resemble Phaistos signs.

It is unlikely that there would be any connection between the Hittite kingdom and the Phaistos Disc for the reason alone that the disc is much older. We only use Hittite texts because we want to find out if the disc is written in an Anatolian language. Luwian is Anatolian and it would be interesting to compare the Phaistos picture symbols with Luwian hieroglyphs. I have found five hieroglyphs that resemble Phaistos signs FIG. 3. (Luwian Hieroglyphs). There are about 500 different hieroglyphs because different scribes sometimes choose another hieroglyph to represent the same syllable. The *su* hieroglyph at FIG. 3 is only one of three different *su* hieroglyphs and the *tu* is one out of five. The hieroglyphs FIG. 3 show the same objects from the daily life as the Phaistos signs. If the language of the Phaistos Disc was similar to Luwian we should expect that the signs represent the same syllable. Now we have deciphered five Phaistos signs.

DECIPHERMENT

The Phaistos signs are given the same numbers as when they were first published by Sir Arthur Evans (Evans 1909). For most of the pictures the object is easy to identify. Some of them are peculiar because they illustrate actions: P18 Brake, P22 Split and P43 Amount. Others are religious objects indicating that the script was invented by a priest: P23 Column, P38 Heaven, P32 Oracle bird, P40 Sacrificial table and P44 Rock sanctuary. Three are soundwords: P29 Cat, P31 Flying Bird and P34 Cikade. In many cases I found both a Hittite and a similar Luwian word for the same object.














In six cases I didn't find a Hittite word for the object, but P19 had a Luwian word, P9, P27 and P42 had a Latin word, P10 had a Greek word and P26 had a German word. The reason for that could be that my Hittite dictionary does not hold all words that were spoken in Anatolian languages. Since



















all the words should be early Indo European words, it is not a surprise that they have survived in some Indo European language. Some linguists have found that Hittite has more in common with Latin and Greek than with Luwian (Drews 2001).















I have used two Hittite dictionaries: (Friedrich 1952) and (Hittite lexicon). Other Indo European Words I have found at (Starotsin) and (Hare).

The first column of TABLE 1. holds the signs. Second column holds the first syllable of the Hittite name. Third column have the English name for the depicted object and arguments for the Hittite name.

TABLE 1. Decipherment.

1		<i>pa</i>	<u>Walking man.</u> H: <i>pai</i> = Luwian: <i>pa</i> = "to walk, to give".
2		<i>is</i>	<u>Warrior.</u> H: <i>isha</i> = "commander". H: <i>lahhi</i> = "fighter, <i>la</i> is used by P27.
3		<i>si</i>	<u>Scar.</u> H: <i>sija</i> = "seal up".
4		<i>ap</i>	<u>Prisoner.</u> H: <i>appant, alsant, arnuwala, hippara</i> = "prisoner". The choice <i>ap</i> is based on the translation of <i>ap</i> = "then" in A27.
5		<i>pu</i>	<u>Child.</u> H: <i>pulla, hammasa, hassant, kappis</i> = Indian: <i>putra</i> = Latin: <i>puer</i> = "child". The choice <i>pu</i> is based on the translation of <i>pu-sa</i> = "small" in B28.
6		<i>wa</i>	<u>Woman.</u> H: <i>kuinna</i> = Luwian: <i>wana</i> = Carian: <i>gwana</i> = "woman".
7		<i>ti</i>	<u>Breast.</u> H: <i>tita</i> = Luwian: <i>titan</i> = Greek: <i>tithos</i> = "breast".
8		<i>ki</i>	<u>Hand.</u> H: <i>kissara</i> = Luwian: <i>issar</i> = "hand".
9		<i>hut</i>	<u>Hood.</u> Latin: <i>cudo</i> = "helm of leather". German: <i>hut</i> = "hat".
10		<i>u</i>	<u>Paddle.</u> Indoeuropean: <i>oye</i> = Greek: <i>oi</i> = "paddlehandle". Greek: <i>oiaks</i> = "rudder". Anatolian languages have <i>o</i> = <i>u</i> .
11		<i>ar</i>	<u>Bow.</u> H: <i>arais</i> = Latin: <i>arcus</i> = "bow".
12		<i>ku</i>	<u>Shield.</u> H: <i>kursa</i> = "leather, shield".
13		<i>kwe</i>	<u>Club.</u> H: <i>hatalla</i> = Indoeuropean: <i>kweku</i> = "club". H: <i>kuen</i> = "strike, kill". The choice <i>kwe</i> is based on the occurrence of the word: <i>par-kwe</i> = "clear" several times A2 etc.

14		<i>tu</i>	<u>Two parts.</u> Similar Luwian hieroglyph: <i>tu</i> . H: <i>tuhs</i> = "to divide". H: <i>tuwa</i> = Lycian: <i>tuwa</i> = "two".
15		<i>at</i>	<u>Axe.</u> H: <i>ates</i> = summittant = "axe".
16		<i>a</i>	<u>Saw.</u> H: <i>ardu</i> = "to saw". H: <i>ark</i> = "to cut". Greek: <i>aor</i> = "sword, knife".
17		<i>ke</i>	<u>Cover.</u> H: <i>karija</i> = "cover". <i>ka</i> is used by P25. H: <i>istapulli</i> = "lead". <i>is</i> is another possibility.
18		<i>ra</i>	<u>Brake.</u> H: and Luwian: <i>lawar</i> = "to brake". English: <i>ravage</i> . The choice <i>ra</i> is based on the occurrence of the word <i>a-ra-wa</i> = "free". The consonants front <i>r</i> and <i>l</i> have similar sounds and both are written as <i>l</i> in Hittite, but they were used meaningfully in Anatolian and Minoan languages.
19		<i>lu</i>	<u>Wood material.</u> H: <i>luessar</i> = "incense wood". Similar Luwian hieroglyph: <i>ru</i> = "articles of wood".
20		<i>li</i>	<u>Pitcher.</u> H: <i>lelhundai</i> = "pour". Greek: <i>liba</i> = "libation".
21		<i>we</i>	<u>Building plant.</u> H: <i>wete</i> = "to build". Lycian: <i>wedri</i> = "a town".
22		<i>isk</i>	<u>Split.</u> H: <i>iskallai</i> = "to split".
23		<i>sa</i>	<u>Column.</u> H: <i>salli</i> = Luwian: <i>sali</i> = "tall". H: <i>sarhuli</i> = "post". German: <i>saule</i> = "column".
24		<i>ma</i>	<u>Grinding mill</u> H: <i>malla, harra</i> = "to grind".
25		<i>ha</i>	<u>Sleigh.</u> H: <i>harnauss</i> = "sedan chair". Danish: <i>kane</i> = "sleigh". Sedan chairs like that are found at wall paintings at Thera.
26		<i>wi</i>	<u>Horn.</u> Indoeuropean <i>wid</i> = "bend". German <i>wisun</i> = "horn". I have not found an adequate Hittite word beginning with <i>wi</i> . <i>we</i> is used by P21.
27		<i>la</i>	<u>Oxhide.</u> Indoeuropean: <i>lam</i> = "sheet". Latin: <i>lamina</i> = "thin sheet".
28		<i>za</i>	<u>Sandel.</u> H: <i>sarku</i> = Spanish: <i>zapata</i> = "shoo".
29		<i>mi</i>	<u>Cat.</u> Egyptian <i>miau</i> = "cat". Soundword.
30		<i>ija</i>	<u>Ram.</u> H: <i>ijant</i> = "sheep".
31		<i>ka</i>	<u>Flying bird.</u> H: At least 14 different beginning syllables for bird names. I choose the birdsound <i>ka</i> because Greek <i>kakabe</i> = "

		birdsound”.
32		<i>i</i> <u>Sitting bird</u> . Similar Luwian hieroglyph: <i>i</i> . H: <i>iparwasssi</i> = ”oracel bird”.
33		<i>pi</i> <u>Fish</u> . H: parhu =Indoeuropean: peisk = Latin: pisces =”fish”. The choice <i>pi</i> is based on the word <i>sapi</i> = ”to clean” in A14.
34		<i>zi</i> <u>Cicada</u> . German: <i>zikade</i> =”cicada”. Soundword.
35		<i>ta</i> <u>Tree</u> . H: <i>taru</i> = ”forest,wood”.
36		<i>vi</i> <u>Wine</u> . Similar Luwian hieroglyph <i>wi</i> . H: <i>wiwan</i> =”wine”. <i>wi</i> is used by P26.
37		<i>se</i> <u>Ear of corn</u> . H: <i>ewan,halki,kant,seppit</i> = Latin: <i>seges</i> = ”corn”. The choice <i>se</i> is also based on the translation of B22.
38		<i>hi</i> <u>Heaven</u> . H: <i>kinu</i> =”sky, space”. German: <i>himun</i> =”heaven”. An eight-pointed star is a common symbol for heaven.
39		<i>na</i> <u>Straw</u> . H: <i>nata</i> =”drinking straw”. Latin: <i>napurea</i> = ”straw rope.
40		<i>it</i> <u>Tongue</u> . H: <i>it-</i> =”to eat”. H: <i>itmari</i> = ”sacrificial dish”.
41		<i>va</i> <u>Bone</u> . H: <i>walla</i> =”leg”. H: <i>hastai</i> =”bone”. <i>va</i> is used by P6. Written Hittite has no <i>v</i> , but spoken Anatolian might have both <i>v</i> and <i>w</i> .
42		<i>ru</i> <u>Caterpillar</u> . H: <i>misari</i> = Latin: <i>rubeta</i> =”caterpillar”. <i>mi</i> is used by P29.
43		<i>su</i> <u>Amount</u> . Similar Luwian hieroglyph <i>su</i> . H: <i>su</i> = “amount”. H: <i>suwai</i> =”to fill”. H: <i>suhha</i> =”to spread”. The picture could be a vase filled with olives or seed spread on the ground.
44		<i>he</i> <u>Rock sanctuary</u> . H: <i>hekur</i> = ”mountain sanctuary” H: <i>peruna</i> = ”rock”.
45		<i>ja</i> <u>Flood</u> . Similar Luwian hieroglyph <i>ia</i> . H: <i>ijal</i> =”spring”. H: <i>ijatar</i> =”abundance”.

CONCLUSIONS OF THE DECIPHERMENT

TABLE 2. The syllables in the Phaistos text.

a	e	i	u
16 a		32 i	10 u
25 ha	44 he	38 hi	9 hut
45 ja			
31 ka	17 ke	8 ki	12 ku
27 la		20 li	19 lu
24 ma			
39 na		29 ni	
1 pa		33 pi	5 pu
18 ra			42 ru
23 sa	37se	3 si	43 su
35 ta		7 ti	14 tu
41 va		36 vi	
6 wa	21we	26 wi	
28 za		34 zi	
4 ap	13 kwe	2 is	
11 ar		22 isk	
15 at		40 it	
		30 ija	

TABLE 2. shows the 45 syllables, but we have to keep in mind, that the Phaistos language probably had 15 -20 more. The four vowels a,e,i and u are the same as in Hittite. They can probably all be long and short. It is possible that some of the syllables have long vowels, but I haven't tried to figure it out. Luwian didn't have e probably because it was influenced by Semitic. Old Hittite, Nesian, had a fixed use of e or i with different meanings. In New Hittite there is some uncertainty and a tendency to replace e with i. probably influenced by Luwian. It is clear from TABLE 2. that the use of e or i was essential for the meaning in the Phaistos language, but my choice of e or i for the different signs is by no means certain.

TABLE 3. The Hittite consonants.

<u>CONSONANTS</u>	<u>Bilab</u>	<u>Alveolar</u>	<u>Palatal</u>	<u>Velar</u>	<u>Labialized</u>	<u>Laryngeal</u>
	<u>ial</u>				<u>Velar</u>	
<u>Plosives</u>	p b	t d		k g	kw gw	
<u>Nasals</u>	m	n				
<u>Fricatives</u>		s				h
<u>Affricate</u>		z				
<u>Liquids, Glides</u>	w	r l	j			

Some of the Hittite consonants are normally written with accents, but I have skipped them in this work. Anyway there is only one *h* and one *s* in Hittite. *z* is pronounced *ts*. The choice between a voiced or unvoiced consonant seems completely arbitrary in Hittite. Therefore I have ignored *b, d, g* and *gw*. It appears from TABLE 2. and TABLE 3. that the Phaistos language had the same consonants as Hittite plus *v*.

READING

Most scholars agree that the script at the disc is syllabic. In other syllabic scripts like Linear A and B there are about 70 different signs. The Phaistos Disc has only 45 different signs, but this is owed to the limited length of the text. Most scripts in the Bronze Age were syllabic: Acadian, Hittite, Cypriotic and Linear A. The direction of reading has been disputed a lot and many scholars believe the reading is from exterior to interior that is from right to left. On the other hand there are several arguments for reading left to right.

1. The other scripts from the Bronze Age just named did write from left to right. The Semitic writing from right to left first appeared in the Iron Age.
2. The living creatures on the disc move from left to right, and the faces look from left to right.
3. The successful Hittite translation is a good argument. Particularly that the text starts with the word "Begin" at the centre of side B.
4. The writer has made a mistake in the word A27. He forgot the last two signs and had to make a bigger box and press them in. This caused the "shield" to overhang the "prisoner".

I am aware that my reading has some misunderstandings and hope that corrections will be made from someone who has a better knowledge of Hittite grammar and vocabulary. The translation in English is open for other interpretations. The text begins at side B. The surface of side B is less smooth than side A. The reason could be that the B side was printed first and then turned downwards against a pad that was not smooth. Another argument is that the text side B starts with the word "Begin".

B1 = P7-P45 = *ti-ja*. H. *tija* = "to approach, begin". The verb has the same form in the infinitive and the imperative 2nd person singular. B1 = **Begin!**

B2 = P25-P23-P34-P29 = *ha-sa-zi-mi*. H: *ka-sa* = "now". H: *zi-nu* = "to present". The suffix *-mi* indicates 1. Person singular, present time. B2 = **Now I present**

B3 = P7-P23-P35-P6-P2 = *ti-sa-ta-wa-is*. H: *tisa* = "to speak" H: *tawal* = "cult beverage". The suffix *-l* is used by formation of nouns. So a Hittite verb *tawa* = "to offer drink" is possible. The suffix *-is* is 3rd person singular past for a verb with hi-conjugation. B3 = **what to say, when someone have a cult beverage.**

B4 = P7-P18-P39-P30-P9 = *ti-ra-nu-ija-hut*. H: *ti* = "do". H: *ra* = "detach, loosen". H: *-nu* = "bring about". H: *ijahhut* = "you should do". B4 = **You must do an act.**

B5 = P8-P7-P36-P29-P22 = *ki-ti-vi-mi-isk*. H: *ki* = "then, here". The vowel is long probably in accordance with the stroke attached to the figure. H: *te* = "to talk". H: *we* = "directly". The suffix *-mi* is 1st person singular present. The suffix *-isk* indicate repetition. B5 = **Here I talk directly again.**

B6 = P24-P18-P23-P7 = *ma-ra-sa-ti*. H: *marsat* = "with falseness" (instrumental). B6 = **With falseness,**

B7 = P7-P45-P7 = *ti-ja-ti*. H: *tijat* = "you begin". 2nd person singular present or future time. B7 = **you should**

B8 = P35-P18-P7 = *ta-ra-ti*. H: *dalat* = "let it be". 2nd person singular, present or future time. B8 = **let it be**.

B9 = P25-P23-P34-P27 = *ka-sa zi-la*. H: *kasa* = "now" (as in B2). H: *zila* = "future, forward". B9 = **very well, go on**.

B10 = *ki-ti-vi-mi-isk* = B5 = **Here I talk directly again**.

B11 = P7-P45-P29 = *ti-ja-mi*. See B1 and B2. B11 = **I approach**,

B12 = P13-P8-P29 = *kwe-ki-mi*. H: *huek* = "to swear". B12 = **I swear**.

B13 = P8-P7-P36-P29 = *ki-ti-vi-mi*. Hitt *ki* = "here, then". H: *te* = "to talk". H: we sometimes means directly. B13 = **I talk directly**.

B14 = P1-P27-P9-P2 = *pa-la-hu-is*. H: *palhhus* = "great, broad" is the same word as the English word "palace". B14 = **loud**.

B15 = P33-P39-P32-P35-P6 = *pi-na-i-ta-wa*. Lycian: *pina* = "to present". The suffix *-i* indicates 2nd person singular imperative. H: *tawa* = "to offer drink" (same construction as in B3). B15 = **You present the drink offering**.

B16 = P1-P33-P29 = *pa-pi-mi*. H: *pa* = "go". H: *pi* = "give". I construct a word *papia* = "to carry out". B16 = **I carry out**.

B17 = P18-P14-P16 = *ra-hu-a*. The most meaningful Hittite word here is *lahuwai* = "to pour". The suffix *-a* indicates passive 3rd person singular, present time. B17 = **pouring**.

B18 = P35-P20-P24-P24-P29 = *ta-li-ma-ma-mi*. H: *taliya* = "call, invite, invoke gods". Lucian: *tali* = "preast". Luwian: *ma-ma-na* = H: *meme* = "to say". B18 = **I say invocations**.

B19 = P1-P38-P25-P27 = *pa-hi-ha-la*. H: *pahhas* = "to protect". H: *kallis* = Luwian: *halta* = "to call". B19 = **to call for protection**.

B20 = P40-P36-P26-P27 = *it-vi-wi-is*. H: *it* = "go!,do!" H: *wiwi* = "to call, ask, instruct". The suffix *-is* is used in 3rd person singular past. "she" and "he" are the same word in Hittite. I will translate this word into "the person". B20 = **the person did call**.

B21 = P35-P40-P24-P7 = *ta-it-ma-ti*. H: *ta* = "and". *it* = "go!,do!" as in B20. H: *mat* = "to support". The suffix *-ti* indicates 2nd person singular present. B21 = **and you support**.

B22 = P25-P42-P37-P22 = *ha-ru-si-isk*. H: *karussija* = "to keep silent, await". The suffix *-isk* indicates repetition. B22 = **you wait for**,

B23 = P18-P1-P13-P7-P15 = *ra-pa-kwe-ti-at*. H: *ra* = "detach, loosen". H: *pa-kwe* = "clear, understandable". H: *tija* = "to get, begin". The suffix *-at* indicates 3rd person singular past. B23 = **that it has been clear for the person**.

B24 = P33-P39-P1-P13 = *pi-na-pa-kwe*. Lycian: *pina* = "to present". *pa-kwe* = "clear". B24 = **Make it clear!**

B25 = P43-P18-P23-P16 = *su-ra-sa-a*. Old Hittite: *su* = "and". H: *ra* = "detach, loosen". The suffix *-a* = "she/he". The suffix *-a* indicates 3rd person singular present passive. B25 = **that the person is free**

B26 = P12-P20-P24-P33 = *ku-li-ma-pi*. H: *hullija* = "to combat, fight". Lycian: *kullti* = "he will strike". The suffix *-ma* = "or". The suffix *-pi* = "even". Jeg sætter B26 = **to fight or even**

B27 = P27-P25-P22 = *la-ha-isk*. H: *lahhesk* = "fight back, carry on fighting". B27 = **carry on fighting**.

B28 = P5-P23-P37-P2 = *pu-sa-se-is*. H: *pussai* = "to become smaller". The suffix *-se* indicates 3rd person singular present. The suffix *-is* indicates 2nd person singular past. B28 = **you have made the person smaller**

B29 = P35-P7-P45-P27 = *ta-ti-ja-la*. *ta* = "take". *ti-ja* = "begin". The suffix *-la* indicates a noun. B29 = **take beginning**.

B30 = P7-P40-P22-P12-P2 = *ti-it-isk-ku-is*. Hitt *tittija* = "to accompany". The suffix *-isk* indicates repetition. *ku-is* = "each individual, whoever". B30 = **accompany each individual**.

A1 = P38-P3-P10 = *hi-si-u*. H: *hes* = "open". The suffix *-u* indicates 3rd Person singular imperative. A1 = *hi-si-u* = **the person has to open**.

A2 = P1-P13 = *pa-kwe*. Confer B23. A2 = **clearly**

A3 = P21-P37-P35-P27-P27-P12-P2 = *we-se-ta-la-la-ku-is*. . H: *wes* = "we". H: *ta* = "take". H: *lala* = "talk". Consequently *ta-la-la* = "talk to". *ku-is* = same as B30. A3 = **we talk to each individual**.

A4 = A1 = *hi-si-u* = **the person has to open**.

A5 = P35-P19-P23 = *ta-lu-sa*. H: *talija* = "to invoke (the gods)" as in B18. The suffix *-u* indicates 3rd person singular imperative *-sa* = "s/he". A5 = **the person must envoke**.

A6 = *pa-kwe-ku-is* = **that is clear, everyone**.

A7 = P38-P26-P31 = *ta-wi-ka*. H: *ta* = "take, and, when". H: *wek* = "request, wish, ask". Old Hittite had a noun case called allertive in order to signify "toward" or "into". The allertive ending is *-a*.

A7 = **When a request is stated**

A8 = P19-P17-P18-P6 = *lu-ka-ra-wa*. H: *lukk* = "light, clear up". . H: and Luwian: *lawar* = "brake". A8 = **to clear up troubles**.

A9 = P27-P18-P32-P14-P27-P12-P2 = *la-ra-i-hu-la-ku-is*. H: *la-la-i* = "state". The suffix *-i* indicates 2nd person singular imperative. H: *hulai* = "fight, struggle". The allertive ending is *-a*. *ku-is* = "each individual, whoever". A9 = **state the necessary fighting for each individual**.

A10 = P26-P31-P12-P2 = *wi-ka-ku-is*. H: *wek* = "wish, ask". The allertive ending is *-a*. *ku-is* = "someone" (confer A9). A10 = **A request is stated from someone**

A11 = P1-P28 = *pa-za*. H: *pasa* = "to swallow, sip". A11 = **to sip**.

A12 = P18-P23-P10-P25-P27-P2 = *ra-sa-u-ha-la-is*. H: *sai* = "to press, force, strength". *rasai* = "loosen press" The suffix *-u* indicates 3rd person singular imperative. H: *kalles* = Luwian: *halta* = "to call". The suffix *-is* indicates 3rd person singular past. A12 = **the person has called for receive strength**.

A13 = A10 = **A request is stated from someone**

A14 = P23-P33 = *sa-pi*. H: *sap* = "to clean, purify". 2nd Person imperative. A14 = **that you make purification**.

A15 = A3 = **We talk to each individual**.

A16 = A10 = **A request is stated from someone**

A17 = A11 = **to sip**,

A18 = A12 = **the person has called for receive strength**

A19 = P11-P39 = *ar-na*. Hitt *ar-nu* = "to send, bring, address". A19 = **address**.

A20 = P38-P23-P32 P12-P2 = *hi-sa-i-ku-is*. H: *kissan* = "thus, in this way". *ku-is* = "anyone" (confer A9). A20 = **in this way everyone**.

A21 = P7-P40-P41-P1 = *ti-it-va-pa*. H: *ti* = "to put, give". The suffix *-t* indicates 2nd person singular, present or imperative. H: *hapa* = "to help, assist". A21 = **go to help**

A22 = P35- P36-P41-P12-P2 = *ta-wi-va-ku-is*. H: *ta* = "and". H: *wiwa* = "call". A22 = **and to call anyone**.

A23 = P35-P26-P31 = *ta-we-ka* = A7 = **when a request is stated**

A24 = R16-R18-R6 P12-P2 = *a-ra-wa-ku-is*. H: *arawa* = "free". *ku-is* = "anyone". A24 = **it is free for anyone**

A25 = P8-P44-P27 = *ki-he-la*. H: *ki* = "this". H: *hela* = "yard". A25 = **this yard**.

A26 = P12-P7-P45-P27 = *ku-ti-ja-la*. H: *ku* = "that". Hitt *tija* = "to take ones stand, to place oneself, to stay". The suffix *-la* forms a noun: *tijala* = "staying". A26 = **to have staying**.

A27 = P33-P40-P4-P12-P2 = *pi-it-ap-ku-is*. H: *pi* = "give". Hitt *it* = "go". The suffix *-ap* = "then, now". *ku-is* = "anyone". A27 = **Then show the concerned**

A28 = P34-P29-P29 = *zi-mi-mi*. H: *zik* = "you". H: *mimma* = "to refuse". A28 = **you send away**.

A29 = P7-P45-P29 = *ti-ja-mi*. H: *tija* = "to enter". A29 = **I am entering**

A30 = P12-P40-P24 = *ku-it-ma*. H: *kuitman* = "briefly". Old Hittite had a noun case called allertive in order to signify "toward" or "into". The allertive ending is *-a*. A30 = **for a moment**,

A31 = P18-P1-P13-P12-P2 = *ra-pa-kwe-ku-is* H: *la-* = "detach, loosen". Example: H: *lukes* = "shining" and *lalukes* = "to become shining". *pa-kwe* = "clear". *ku-is* = "anyone" A31 = **to make it clear for anyone**.

THE TOKENS

A special short line, a token, is attached to the bottom of some of the figures. There are 16 tokens and they are all attached to the first figure in a word. It seems that the token designates a long vowel. In B1, B7, B11 and A29 the first syllable *ti* has a token. The reason for that might be, that another pronunciation for *ti* is known to be the long diphthong *tai*. B5, B10 and B13 all have tokens and their first word is *kiti*, where the first vowel is known to be long. A10, A13 and A16 have tokens, and their first word is *wika*. It is possible that the first vowel in *wika* was long. The last tokens are placed in B25, B28, A5, A11, A17 and A31. It is possible that the first syllables here also had long vowels. Most of the figures with tokens appear without token in beginning of other words. This means that these other words started with a short vowel.

TRANSLATION

I have tried to find the meaning in English for each group at a time. Now I place the bits together. In this way the word-order in the translation will not be the normal word-order in English. Even so the bits gain meaning when they are placed together with their neighbours. I present the translation with the groups arranged in periods that might give a better understanding.

Begin! -- Now I present what to say, -- when someone have a cult beverage.--

You must do an act.--

Here I talk directly again:--With falseness,--you will-- let it be.--

Very well, go on. -- Here I talk directly again.--I approach. -- I swear.--I talk directly—loud.--

You present the drink offering.--I carry out-- pouring.--

I say invocations-- to call for protection.--

The person did call,--and you support.--You wait for-- that it has been clear for the person.—

Make it clear!—that the person is free--to fight or even-- carry on fighting. –

You have made the person smaller.--

Take beginning.--accompany each individual. -- the person has to open.-- clearly we talk to each individual.—

The person has to open-- the person must invoke-- that is clear, -- everyone.—

When a request is stated-- to clear up troubles,--state the necessary fighting for each individual.—

A request is stated from someone-- to sip-- the person has called for receive strength.—

A request is stated from someone-- that you make purification, --we talk to each individual.—

A request is stated from someone-- to sip, -- the person has called for receive strength.—

Address--in this way everyone. -- Go to help-- and to call anyone,--when a request is stated.—

It is free for anyone-- this yard to have staying.-- Then show the concerned-- you send away. —

I am entering --for a moment, -- to make it clear for anyone.

THE SUBJECT-MATTER OF THE TEXT

The disc is a letter from a priest. It is not a sacred text but practical information. The text is an instruction concerning the drink offering. Drinking ceremonies are documented in Minoan Temples by the find of many cups. A Hittite text describes a drinking rituals, where the king and the queen drink “the god” from a lion shaped rhyton. With the Phaistos text we can learn how drinking rituals were performed in Minoan Temples.

Some people have maintained that the Phaistos Disc is an import because it is different from other Cretan finds. I can not follow this argument. There could only be one copy of the set of stamps and they belonged to the place of the inventor. Other letters must have been produced with the set of stamps, but they were probably not meant to be saved for a long time. The Phaistos script was destroyed with the set of stamps probably by an earthquake. The Minoan society was a highly developed religious and technical culture and could produce the disc as well as any other culture. The pictures at the disc are all concordant with the life in Minoan time. Even the warrior with feather crown was found as a hieroglyph on the Minoan double axe from Arkalochori.

The most essential for the writer of text is to emphasize that every client should have a personal treatment. This procedure may be explained by a complex situation in Phaistos at the end of the Old Palace Period. According to the archaeologists Phaistos at that time took control over another great town Agia Triada and the harbour Kommos. This would imply that foreigners from Crete or abroad were consulting the Phaistos Temple.

In Mesara near Phaistos the so called Tholos graves were still in use. These dome shaped graves were used by clans. Probably Phaistos still had remnants of a clan society although the rest of the Minoan society had become corporative. It was a challenge to the priest to help many different types of clients of which some felt they were privileged. The Phaistos Disc is an advice from an experienced priest on how to handle the situation.

THE LANGUAGE OF THE DISC

If we accept that the use of Hittite for decipherment of the disc was successful, we must admit, that the Phaistos language was Anatolian. Minoan, the language of Linear A, also belongs to the Anatolian language group (Drews 2001). The Minoan culture was special but it had several connections with Anatolia. Already before the Bronze Age there is similar ceramics in Crete and West Anatolia. In excavations in Beycesultan in West Anatolia an altar with horns from ca. 2500 BC was revealed. The altar with horns is a typical Minoan symbol. The palace in Beycesultan from the period 1850-1650 BC has a plan with a central court that is characteristic for the Minoan palaces (temples).

The writer and the reader of the disc must have known Linear A. They probably didn't know the Hittite cuneiform script. Linear A was used by merchants, artisans and administrators. The inventor of the Phaistos script knew the idea of a syllabic script from Linear A. We can only guess why he created another script. May be he wanted an independent clerical communication. The Luwian hieroglyphs are an example of using new symbols for the same syllables.

The interpretation of the Phaistos Disc in this paper makes it clear that the language of the disc is Anatolian. The language is probably Minoan, the language of Linear A. The signs of the disc are not the same as in Linear A. I believe that Linear A should be studied from a Hittite point of view. This is not the place for such a study, but I would like to give a suggestion.

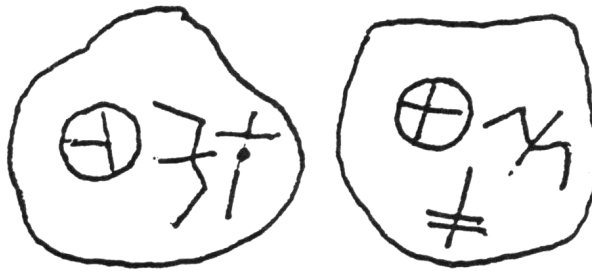


FIG. 4. Two small tablets from Agia Triada with inscriptions in Linear A

The tablets FIG. 4. probably have the name of Knossos (in Greek) written *ka-nu-sa* (in Minoan). The first symbol is a wheel and Luwian: *kaluti* = "wheel". The same symbol in Linear B also means *ka*. The next symbol is bow and arrow, and H: *nu* = "now". The third symbols are different and probably represent two inflections: the allertive *sa* "going to", and the locative *si* "coming from". The Phaistos sign of *sa* is a column and could be the same here. The symbol of *si* could be an altar with two shelves. H: *sipantahhi* = "I sacrifice".

FINN RASMUSSEN

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