














































D. Rumpel

## An Approximate Interpretation of the Diskos of Phaistos Text

### 1. Premises

This paper is mainly based on two earlier articles of the author [<sup>1</sup>], [<sup>2</sup>], which contain internal analyses of the Diskos of Phaistos (DoPh)-text resulting in the following findings:

- a) By numerical comparison to an idiographic (Chinese), a semi-ideographic (Japanese) and a letter-writing (German) text, it could be demonstrated that the (DoPh)-text is written syllabically. This result confirms the opinion of the majority of scholars engaged here. Congruent to the syllabic interpretation, the compartments on the two Diskos-faces are regarded to contain words of some form.
- b) Numerically extrapolating the set of characters found on the DoPH, the full type-fount was determined to contain between 55 and 65 characters (See also Mackay [<sup>3</sup>]). The number 65 is equivalent to the maximum type-set of 65 open syllables, which can be achieved by combination of the phonemes expressed in (Minoan) LinA. Thus, when assuming a Minoan production of the Diskos, there remains neither space nor necessity for homophone or ideographic characters in the DoPh-text. Also – this text not being

1	Ba		10	Be		19	Bi		28	Bo		37	Bu	
2	Ca		11	Ce		20	Ci		29	Co		38	Cu	
3	Fa		12	Fe		21	Fi		30	Fo		39	Fu	
4	Ga		13	Ge		22	Gi		31	Go		40	Gu	
5	Ha		14	He		23	Hi		32	Ho		41	Hu	
6	La		15	Le		24	Li		33	Lo		42	Lu	
7	Va		16	Ve		25	Vi		34	Vo		43	Vu	
8	Xa		17	Xe		26	Xi		35	Xo		44	Xu	
9	Ya		18	Ye		27	Yi		36	Yo		45	Yu	

**Fig. 1: Assignment of a neutral syllabic code to the Diskos of Phaistos character-types**  
 (Numeration according to Evans)

written but stamped – each type exceeding the number that is sufficient to write any Minoan word phonetically, had required the un-economical production of another die [<sup>4</sup>]. Regarding the DoPh-text, this leads to the assumption of a type set of pure open-syllable characters without homophones.

- c) Based on these regards, a neutral code of open syllables **not** found in LinA was made up and arbitrarily assigned to the DoPh character-types. This assignment is shown in **Fig. 1**. Applying this code, a comfortable representation of the DoPh-text on a computer became possible, which transformed the text of the Diskos-faces A and B into a syllabic chain each, that was articulated into words according to the compartments on the Disk.
- d) The next question was the reading direction of these chains. Regarding word-repetitions, they could further be articulated into lines, the length of which was in compliance with the periodic structure of the DoPh-text found by W. Nahm [5] using autocorrelation. Stacking the lines in one or the other reading direction showed, that a (right bound) reading direction from the spiral-centres outward delivered a reasonable language-like and poetical structure, whereas the inversion did not lend itself to an easy structural interpretation. This phenomenon was also noted by E. Schertel [6] and E. Grumach [7] - both prominent scholars engaged in this field - and was seen as a strong argument for the right bound reading direction. The author wants to stress this fact, because the newer mainstream in this field, especially after the authoritative publications of Y. Duhoux [8], prefers the left bound reading direction from the periphery inward. Further evidence for the right bound reading direction can be drawn from the peculiar distribution of the corrections on the Diskos, as detailed in [9]. In the following we shall use the right bound reading direction.
- e) Further analysis of repetitions of and within words revealed prefixes and suffixes (compare also Ipsen [10], Duhoux [11]). A tentative assignment of meaning to these particles could be found: For nouns and adjectives, case is defined by prefixes; number and gender are commonly defined by suffixes. Only one probable verbal particle could be found. The filter-process applied to identify grammatical particles required at least two appearances in relevant positions, thus giving a reasonable security that they were indeed of grammatical meaning, but particles evtl. appearing only once in the text were not found in that way.
- The grammatical assignments are applied and extended in the following. On that way, a certain amount of circular argumentation is not avoidable, but regard, that the assignments were drawn from several positions of a particle, each application is in one position.
- f) A statistical comparison of the character-frequencies in the Diskos-text with LinA and with Pre-Greek names compiled in Schachermeyr [12] showed a strong correlation of the code “Va” (see above) with the vocal syllable “A”, as accepted in the following.

Working these results into a coded Diskos text-version achieves the structure of **Fig. 2**. In this figure the identified and interpreted particles - enclosed in square brackets – convey the following meaning:

**[Xo]** genitival prefix (of)

**[Fe]** dative prefix (to)

**[Ye]** instrumental prefix (by)

According to the statistics in [1], nominative as well as accusative case, seem to bear no prefix.

**[LoFu]** prefix, meaning something like “in the middle”

**[Ca]** masculine plural suffix

**[FeCa]** feminine plural suffix

**[Co]** masculine adjective suffix (latin -sus)

**[Yi]** feminine adjective suffix (latin -sa)

**A** suffix behaving as a word-coupler or postponed article

**[Gi]** probably verbal (suffixum verbi)

The text does not enforce the introduction of more than two genders.

The sign [?] marks one destroyed character on the Disk.

The repeating words or roots applied in the particle analysis are marked red. The codes, which are already replaced by the proposed Minoan phonetics (presently only the syllable A), appear on yellow background. Line-numbers will be used for referencing in the later analysis.

<b>Face A</b>	
1)	CuFaBe <b>BaGe</b> FiBu[Xo]YiYi[FeCa]
2)	CuFaBe [Xo]BiHi <b>BaGe</b> [FeCa]
3)	[Fe] <b>XiGo</b> BiXeYeLa YiYeHoHeYi[FeCa]
4)	<b>XiGo</b> [FeCa] BaBo YeHiBeViYi [Ca]
5)	<b>XiGo</b> [FeCa] HiLo FiBu[Xo]YiYi[FeCa]
6)	<b>XiGo</b> [FeCa] BaBo YeHiBeViYi [Ca] CeFu CuHiHo[FeCa]
7)	<b>AGu</b> HuBa [Xo]BiHu[FeCa] [Xo] <b>XiGo</b> [?]YeLa[FeCa]
8)	XaXu[Yi] [Fe] <b>AYu</b> [Yi] LoGuGa[FeCa]
9)	VoCo[Co] <b>AYu</b> [Co] [Fe] <b>GuLi</b> [Ye] <b>BaGe</b> [FeCa]
<b>Face B</b>	
10)	<b>AYu</b> <b>ViHiVo</b> [Co] <b>A</b> HiXoLa[Ca] <b>A</b> YeFuFoYa <b>XaAYo</b> [Co][Gi]
11)	LiYeHi[A] <b>AYu</b> [A] [Xo][Ye][A] <b>ViHiVo</b> [Yi] <b>XaAYo</b> [Co][Gi]
12)	<b>AYu</b> [Co] GeXa[Co] <b>XaAYo</b> [Co] BaYiYa[Ca] [LoFu]HoXoLa
13)	BaLo[Co] [Ye]HeVe [Xo]CiLiLi[Co]
14)	BaCuVi[Yi] GuYoXi[Ca] [Xo] <b>GuLi</b> [A] ViLuBu[Gi] [Ye] <b>BaGe</b> [A] Le
15)	[LoFu] <b>BaGe</b> VuYeHiVe [Fe]CiLiLo YiVi[Gi]
16)	HaHiBu[Ca] [Xo] <b>AYu</b> [Yi] <b>AGu</b> Gi[FeCa]

Fig.2: Coded version 1 of the Diskos-text

## 2. Fitting meaning and sound

Starting from Fig.2, the next steps try to extract some meaning from the structure of the text, then underlay the meaning with possible phonetics, look whether these phonetic syllables make sense elsewhere in the text, and so on. Proceeding thus, is of course not too stringent, and there is the risk that the last positioned phonetics will not be more than space holders; but in any case, this procedure sets at least some limits to personal inspiration, and even wrong, but consistent assignments will connect wording in different parts of the text.

Let us start with **Face B**, where lines 10) to 12) show a rather formal, even hymnal, construction with repetitions of the roots **AYu**, **ViHiVo** and **XaAYo**. The word **AYu** spreads throughout the text of both Faces and is decorated with different flexional particles. It behaves like a personal, partially possessive, pronoun referring to **ViHiVo**[Co]. So the adjectival noun **ViHiVo**[Co] appears to be the title (a name is less probable in adjectival form) of a main person. Face B tells what he has done, and the relevant verbs would be marked by [Gi]. A good guess for the reported activities of a main person is, that "he was victorious": **XaAYo**[Co][Gi]. We assume this hypothesis for the meaning of line 10).

For the title of the main person, we derive from ταγος (non-Indo-European), τακτικός (Indo-European) and the δακτυλοι of the Cretan myth, the writing **TaKaTuSu**. For the genitival suffix

[Xo] we can with good security introduce **Ja** as corresponding syllable from LinA [<sup>13</sup>]. This would transform line 10) to 12) into:

- 10) **A**Yu **TaKaTu**[Su] AKaJaLa[Ca] AYeFuFoYa Xa**A**Yo[Su][Gi]  
 11) LiYeHi[A] **A**Yu[A] [**Ja**][Ye][A] **TaKaTu**[Yi] Xa**A**Yo[Su][Gi]  
 12) **A**Yu[Su] GeXa[Su] Xa**A**Yo [Su] BaYiYa[Ca] [LoFu]HoJaLa

These phonetic placements also have consequences in other parts of the text, but let us first turn to the entrance of **Face A**.

- 1) CuFaBe **BaGe** FiBu[**Ja**]YiYi[FeCa]  
 2) CuFaBe [**Ja**]BiHi **BaGe**[FeCa]  
 3) [**Fe**]**XiGo** BiXeYeLa YiYeHoHeYi[FeCa]

Here lines 1) and 2) have the form of an invocation, or better an imploration because in line 3) a dative [**Fe**]**XiGo** as a potential receiver of implored goods appears. In the following lines 4) to 6) the same root XiGo reappears as feminine plural **XiGo**[FeCa]. As Face B can be assumed to report on the main person's feat, the most logical assumption is, that Face A is celebrating this feat in an – as a matter of course - religious form. In that case the receiving **XiGo** should be another title of the (male) main person; a general title which can also be applied to a plurality of female persons (priestesses?). We assume the meaning “Lord” and “Lordesses”. As phonetic expression of **XiGo** we chose **KuRo** in remembrance of the *κουρετες* of the Greek myth, maybe for *κυριος*. Also "κουρος" Zeus might have meant to the True Cretans something different from a boy.

Now, **KuRo** is the only word in LinA, the meaning of which is definitely known. According to its position in the accounts on the clay tables it means “sum”. Well, “sum” is Latin “summa” (f.) , masculine “summus”, the extended older form is “supremus”. This again means “the highest”, “the most extended”, “on the highest level”. Applied to a person: “the lord”. So perhaps calling the result of an addition “the highest” is a very old bookkeepers’ tradition, and one could muse about the period, when it lost its male gender.

The invocation expressed in lines 1) and 2) by CuFaBe is with high probability not directed to human persons, but to Gods or - in the Cretan case - Goddesses. In line 2), **BaGe**[FeCa] as a feminine plural offers itself as a commonly invoked plurality of Goddesses specified by [**Ja**]BiHi = “of” something. Before that, in line 1) a single and therefore main Goddess gets an invocation for herself. This Goddess reappears again singly in line 5). For such a divine person the Libation-Formula in LinA delivers a qualified example as A/JaSaSa-RaMa/-RaMe, with “Ja” before the reduplication “SaSa” intriguing here. Assuming “Ja” as a genitive particle, we could read this as “of-SaSa-Goddess”. So the structure of line 1) in comparison to line 2) puts the Goddess to the front and decorates her afterwards with [**Ja**]YiYi[FeCa], a plurality “of SaSa’s”. Semantics and phonetics of the intermediate “FiBu” can easily be borrowed from the contemporary - even if possibly Indo-European – Potnia. So, a sequence of **RaMa** **PoTi**[**Ja**]SaSa[FeCa] would evolve.

The first word CuFaBe, seen as a verb, will probably contain a personal particle in front [**Cu**]FaBe, as it expresses an imperfect tense [<sup>13</sup>]. For FaBe, we have a model in the pre-Greek invocation "θωρε" in the Hymn of Palaikastro [<sup>14</sup>] and therefore chose the phonetics **DoRi**.

Back to **Face B**. If we keep to the suspicion that the **TaKaTu[Su]** was victorious, then line 10) should also state the enemy. And in fact there are the **AHiXoLa[Ca]**, or, with the phonetics gained in between, **AKaJaLa[Ca]**, which without much force can be extended to **AKaJaWi[Se]**.

As line 10) names the enemy, line 11), should probably name the means of victory, which under Cretan conditions has a large chance to be the fleet. We have, with the present phonetics

11) LiYe**Ka[A]** **AYu[A]** **[Ja][Ye][A]** **TaKaTu[Su]** **XaAYo[Su][Gi]**

and suspect the sequence: “Fleet-the his-the by-the-same Takatusian victorious-he(was)”. The syllables Ye**Ka** of the first word are also found in the words:

4) und 6) Ye**Ka**RiTaSa[**Se**]  
15) VuYe**Ka**Ve

and should have the same meaning there, because a bi-(open)syllable is already a reasonable semaphore in Minoan. When we set Ye = **Na**, Li = **Pa**, we achieve a consistent meaning as:

**NaKa** = ship

**PaNaKa** = fleet

**NaKaRiTaSa** = ship-bay = harbour (for “Ri(n)TaSa” compare “Lindos, Ko-rinthos”)

**VuNaKaVe** = something ship-related?

Entering the sum of these assignments into a second coded version of the text, we get:

<b>Face A</b>	
1)	[Cu]DoRi <b>RaMa</b> PoTi[Ja]SaSa[FeSe]
2)	[Cu]DoRi <b>[Ja]BiKa RaMa[FeSe]</b>
3)	[Fe] <b>KuRo</b> BiXeNaWi SaNaHoHeSa[FeSe]
4)	<b>KuRo[FeSe]</b> RaBo NaKaRiTaSa[Se]
5)	<b>KuRo[FeSe]</b> KaLo PoTi[Ja]SaSa[FeSe]
6)	<b>KuRo[FeSe]</b> RaBo NaKaRiTaSa[Se] CeFu CuKaHo[FeSe]
7)	<b>AGuHuRa</b> <b>[Ja]BiHu[FeSe]</b> <b>[Ja]KuRo</b> [?]NaWi[FeSe]
8)	XaXu[ <b>Sa</b> ] [Fe] <b>AYu[<b>Sa</b>]</b> LoGuGa[FeSe]
9)	<b>TuSu[<b>Su</b>]</b> <b>AYu[<b>Su</b>]</b> [Fe] <b>GuPa</b> [ <b>Na</b> ] <b>RaMa[FeSe]</b>
<b>Face B</b>	
10)	<b>AYu</b> <b>TaKaTu[Su]</b> <b>AKaJaWi[Se]</b> ANaFuFoYa <b>XaAYo[Su][Gi]</b>
11)	<b>PaNaKa[A]</b> <b>AYu[A]</b> <b>[Ja][Na][A]</b> <b>TaKaTu[<b>Sa</b>]</b> <b>XaAYo[<b>Su</b>][<b>Gi</b>]</b>
12)	<b>AYu[<b>Su</b>]</b> <b>MaXa[<b>Su</b>]</b> <b>XaAYo[<b>Su</b>]</b> <b>RaSaYa[<b>Se</b>]</b> [ <b>LoFu</b> ]HoJaWi
13)	RaLo[ <b>Su</b> ] [ <b>Na</b> ]HeVe [ <b>Ja</b> ]CiPaPa[ <b>Su</b> ]
14)	RaCuTa[ <b>Sa</b> ] GuYoKu[ <b>Se</b> ] [ <b>Ja</b> ] <b>GuPa[A]</b> <b>TaLuTi[<b>Gi</b>]</b> [ <b>Na</b> ] <b>RaMa[A]</b> Le
15)	[ <b>LoFu</b> ] <b>RaMa</b> VuNaKaVe [Fe]CiPaLo SaTa[ <b>Gi</b> ]
16)	HaKaTi[ <b>Se</b> ] [ <b>Ja</b> ] <b>AYu[<b>Sa</b>]</b> <b>AGuGi[FeSe]</b>

Fig.3: Coded version 2 of the Diskos-text

An attempt to read this text is worthwhile, because rough outlines are already recognizable.

For **Face A**, it was possible to fill the assumed invocative sequence in lines 1) to 3) with pertinent bits and pieces. According to the findings in Minoan iconography, “**RaMa PoTi[Ja]SaSa[FeSe]**” could be seen as “Goddess Mighty-of-the-hills” with SaSa (f.) = hill. We

do not understand yet the specification [Ja]BiKa of the plurality of Goddesses, nor the gift SaNaHoHeSa[FeSe] implored, but we can expect BiXeNaWi, perhaps [Bi]XeNaWi with [Bi] meaning “you”, to be a “giving”-verb.

If the KuRo[FeSe] are priestesses, they can of course be in a relation KaLo to the PoTi[Ja]SaSa[FeSe] as in line 5). That they are additionally engaged in harbour administration as in lines 4) and 6), is a new aspect. An understandable action in the sequence of a sea victory could be to “open” = RaBo them, after prior closure or unfeasibility of use. Lines 7) and 8) presently defy interpretation, but the form of line

9) TuSu[Su] AYu[Su] [Fe]GuPa [Na]RaMa[FeSe]

looks suspiciously like a closing formula as “Peace/Protection my/his to-the-Land by-the-Goddesses”. Generally speaking, such a clause belongs to the end of all. As well, the sequence Face A “consequences of the victory”, Face B “report of a victory” seems inverted. Face B should be put to the front.

Also the question, whether the personal pronoun AYu relating to the main person is “I” or “he”, seems to find a decision on Face A: In lines 3) and 7) the main person is spoken of as KuRo in the third person, so a change of the grammatical person in the pronouns of lines 8) and 9) seems implausible. We shall therefore interpret AYu = “he” also on Face B.

In Face B, the first line 10) seems clear. As AKaJaWi[Se] defines a plausible enemy, ANaFuFoYa should be a specification as “adversary” or – in the Egyptian way – “dirty” or something like that. For line 11) the suspicion uttered above (“Fleet-the....) works out reasonably. The whole section seems to extend farther into line 12) of equal length and the short closing line 13). Line 12) says that his “victorious MaXa[Su] did RaSaYa[Se] to [LoFu]HoJaWi“, and line 13) adds "RaLo[Su] [by]HeVe [of]CiPaPa[Su]" as a means of this doing.

Interesting here is the sequence 12) [LoFu]HoJaWi, because –JaWi repeats the last syllables of 10) AKaJaWi {In line 12) without the plural suffix [Se] that in 10) was added as a later correction}. [LoFu] in its meaning “amidst” would fit to doing something against the named enemy, but the expected first syllable A of the enemy's name is missing. If we assign [LoFu] = [MeDa] we can, by a slur over a]Q, construct [MeDa]QaJaWi. That such a slur over is indeed required at this place will be clear, when we later deal with the poetical metrics of this passage.

Lines 14)-16) still defy a clear view on an interpretation, but they imply further activities of the main person marked by the suffix [Gi], and imply also the presence of the Goddesses in [Na]RaMa[A]Le (instrumental) and [MeDa]RaMa.

By the way, we have assigned the phonetics for the following grammatical particles:

- [Ja] genitival prefix (of)
- [Na] instrumental prefix (by)
- [Se] masculine plural suffix
- [Su] masculine adjective suffix (latin -sus)
- [Sa] feminin adjective suffix (latin –sa)
- [A] suffix behaving as a word-coupler or postponed article
- [MeDa] prefix, meaning something like “in the middle”

As we have used up now about half of the open syllables present in LinA, the remaining possible assignments are beginning to limit the freedom of our intentions. But, in case the previous assignments were about correct, these constraints should narrow down the selections to further correct assignments.

The following table contains the yet unassigned 23 codes and the number of their appearance in the DoPh-text. Numbers in brackets mark those, which are not worth their value, because the character appears mostly, or all the times, in the same word-connection. A typical case is the syllable Yu which is only present in the connection **AYu** = “he”.

Bi	Bo	Ce	Ci	<b>Cu</b>	<b>Fe</b>	Fo	Ga	<b>Gi</b>	Gu	Ha	He	Hu	Le	Lu	Ve	Vu	Xa	Xe	Xu	Ya	<b>Yo</b>	<b>Yu</b>
3	(2)	1	2	4	(17)	1	1	(5)	6	1	2	2	1	1	2	1	4	1	1	2	(4)	(6)

The best way for further assignments seems to begin with the most frequent syllables. So let us start with Gu, which is present in the words:

- 7) **AGuHuRa**
- 8) **MeGuGa[FeSe]**
- 9) **[Fe]GuPa**
- 14) GuYoXi[Se]
- 14) **[Ja]GuPa[A]**
- 16) **AGuGi[FeSe]**

The only word here, the meaning of which we have a suspicion for, is **[Fe]GuPa** = “to-the-land”. As Gu is relatively frequent in different Diskos-words, its phonetic equivalent should be one of the syllables found also frequent in LinA. Of these, there remain only three still: “Re”, “Ru” and “Te”. The syllable “Te” is frequent in LinA, but mainly due to its numerous appearances in end position, where it probably marks a feminine plural. In the present discussion we have found a bi-syllabic particle for this function. So what? Actually, there is one case on the Diskos, where a highly probable feminine plural is marked by only one character. In line

14) **RaCuTa[Sa]** GuYoXi[Se] **[Ja]GuPa[A]** **TaLuTi[Gi]** **[Na]RaMa[A]** Le,

the last word, probably meaning “by means of the Goddesses” is - by the coupling particle **[A]** - referred back to **[Ja]GuPa[A]** = “of the land”, thus producing the sequence “by means of the Goddesses of the land”. The reason that forbids a bi-syllabic particle here, is dictated by the metric of the line, as shown later. So we will reserve **Te** for Le. Remains for “land” **GuPa** = RuPa or RePa. We assign **RuPa**, because it arouses some reminiscences (Europa < \*E-RuPa = out-land, abroad?)

Relatively frequent still is Cu, also as **[Cu]** = we (?) in the invocation of the first lines of Face A. In total we have got the instances in:

- 1) and 2) **[Cu]DoRi** (invocation)
- 6) **KuRo[FeSe]** RaBo **NaKaRiTaSa[Se]** CeDa **CuKaQa[FeSe]**
- 14) **RaCuTa[Sa]** RuYoKu[Se] **[Ja]RuPa[A]** **TaLuTi[Gi]** **[Na]RaMa[A]Te** .

In line 6), **CuKaQa[FeSe]** is attached by **CeDa** , probably the conjunction “and”, to the harbours to be opened. For the single Ce we still have the syllable **E** free to make **CeDa** = **EDa**. The **CuKaQa[FeSe]** should further be opened in unison with the harbours. We surmise “navigation”. The word for “navigation” with some probability is derived from “ship” **NaKa**. So an initial consonant N for Cu would serve. **Na** is given out, but we still have **Ne, Ni, (No)** and **Nu**

in this series. Of these, **Nu** seems preferable, because it also delivers a useful parallel to a Semitic “we” in the invocation. So we construct:

- 1) and 2) **[Nu]DoRi** “we implore”  
 6) **EDa NuKaQa[FeSe]** “and navigation”  
 14) **RaNuTa[Sa]** “??”

Further phonetic gaps still are present in relation to “victory”. Here the word-groups

- 8) **XaXu[Sa]** **[Fe] AYu[Sa]** **MeRuGa[FeSe]**  
 10) and 11) **XaAYo[Su][Gi]**  
 12) **AYu[Su]** **MaXa[Su]** **XaAYo[Su]** **RaSaYa[Se]** **[MeDa]QaJaWi**  
 14) **RuYoKu[Se]**

are relevant. In line 8) of Face A, the victory is already known as a fact, whereas on Face B it is only made known. So we can take **XaXu[Sa]** as the noun “victory” and construct it from the still available phonetic syllables as **NiKi[Sa]**. This delivers **Ni** as the first syllable for “victorious” in lines 10-12). For the necessary K-sound in **Yo** we still have **Ke** and **Ko**. We chose **Ke** as nearer to **Ki** in the vowel and get

- 8) **NiKi[Sa]** **[Fe]AYu[Sa]** **MeRuGa[FeSe]**  
 10) and 11) **NiAKe[Su][Gi]**  
 12) **AYu[Su]** **MaNi[Su]** **NiAKe[Su]** **RaSaYa[Se]** **[MeDa]QaJaWi**  
 14) **RuKeKu[Se]**,

where the second word in **AYu[Su]** **MaNi[Su]** **NiAKe[Su]** unexpectedly makes sense for “his hand victorious” or better “his victorious hand”.

Further, we still have three examples with **Bi** and **Hu**:

- 2) **[Nu]DoRi** **[Ja]BiKa** **RaMa[FeSe]**  
 3) **[Fe]KuRo** **BiXeNaWi** **SaNaQaHeSa[FeSe]**  
 7) **ARuHuRa** **[Ja]BiHu[FeSe]** **[Ja]KuRo** **[?]NaWi[FeSe]**

**BiXeNaWi** as a verb is probably **[Bi]XeNaWi** or even **[BiXe]NaWi**, with a personal attachment “you” in front. If we put **Bi** = **Di** or **De**, the last two words of line 2) could be interpreted as “of-the-ten Goddesses” or “Goddesses of the ten”, perhaps speaking of 10 administration-areas of Minoan Crete. We set **Bi** = **Di**. If we put **Hu** = **Ko**, we get in line

- 7) **ARuKoRa** **[Ja]DiKo[FeSe]** **[Ja]KuRo** **[?]NaWi[FeSe]**

where **[?]NaWi[FeSe]** repeats the root of the “giving”-verb of line 3) (now **DiXeNaWi**), and by dropping the prefix and decorating it with the feminine plural suffix **[FeSe]** converts it to the noun “givers”. Give what? **ARuKoRa** = “αργυρος, silver“ **[Ja]DiKo[FeSe]** = “of the tithes” **[Ja]KuRo** = “of the lord”. We still have **De** for **Xe** and construct the “giving”-verb in line 3) as **[DiDe]NaWi**.

Further let us meet a decision on the frequent, but monotonous particle **[Fe]**, which appears only as the dative prefix, and as the first syllable of the feminine plural suffix **[FeSe]**. As we have above surmised a relation of the **KuRo** to the *κουρετες*, a T-sound is missing. From the T-series, there is only **To** still available, so we assign **Fe** = **To** and get for the priestesses **KuRo[ToSe]**.



In order to get again a survey on the present state of the assignments, we prepare a third version of the text in Fig. 4.

**Face A**

- 1) [Nu]DoRi RaMa PoTi[Ja]SaSa[ToSe]
- 2) [Nu]DoRi [Ja]DiKa RaMa[ToSe]
- 3) [To]KuRo [DiDe]NaWi SaNaQaHeSa[ToSe]
- 4) KuRo[ToSe] RaBo NaKaRiTasa[Se]
- 5) KuRoToSe] KaMe PoTi[Ja]SaSa[ToSe]
- 6) KuRo[ToSe] RaBo NaKaRiTasa[Se] EDa NuKaQa[ToSe]
- 7) ARuKoRa [Ja]DiKo[ToSe] [Ja]KuRo [?]NaWi[ToSe]
- 8) NiKi[Sa] [To]AYu[Sa] MeRuGa[ToSe]
- 9) TuSu[Su] AYu[Su] [To]RuPa [Na]RaMa[ToSe]

**Face B**

- 10) AYu TaKaTu[Su] AKaJaWi[Se] ANaDaFoYa NiAKe[Su][Gi]
- 11) PaNaKa[A] AYu[A] [Ja][Na][A] TaKaTu[Sa] NiAKe[Su][Gi]
- 12) AYu[Su] MaNi[Su] NiAKe[Su] RaSaYa[Se] [MeDa]QaJaWi
- 13) RaMe[Su] [Na]HeVe [Ja]CiPaPa[Su]
- 14) RaNuTa[Sa] RuKeKu[Se] [Ja]RuPa[A] TaLuTi[Gi] [Na]RaMa[A]Te
- 15) [MeDa]RaMa VuNaKaVe [To]CiPaMe SaTa[Gi]
- 16) HaKaTi[Se] [Ja]AYu[Sa] ARuGi[ToSe]

Fig.4: Coded version 3 of the Diskos-text

We still have to assign phonetics to 11 code syllables respectively characters:

Bo	Ci	Fo	Ga	<b>Gi</b>	Ha	He	Lu	Ve	Vu	Ya	<b>Yu</b>
(2)	2	1	1	(4)+1	1	2	1	2	1	2	(6)

And for that purpose we have residual 17 phonetic syllables of non-zero frequency in LinA [<sup>15</sup>]  
 Du, Je, Ju, I, Mi, Mu, Ne, O, Pi, Pu, Qe, Qi, Re, Si, U, Wa, Za.

The problem is, that the frequency of the code syllables in different words is shrinking to almost one, leaving no comparisons within the text. Constrained fancy is required.

Let us then first have a look at the characters that appear twice: Ci, He, and Ya.

For Ci we have the two sequences:

13) RaMe[Su] [Na]HeVe [Ja]CiPaPa[Su]

and

15) [MeDa]RaMa VuNaKaVe [To]CiPaMe SaTa[Gi]

16) HaKaTi[Se] [Ja]AYu[Sa] ARuGi[ToSe]

Line 13) states as a means of the victory "the divine help?/power? of the possible Minoan god of war". If we enter Ci = Si, we get for his name SiPaPaSu with a remote similarity to Sisyphos, and we get in line 15) [To]SiPaMe = "to Siphnos? " (island). If we look for He in 13) [Na]HeVe = "help?/power?" we get a second example from line 3) SaNaQaHeSa[ToSe], the gift implored for the lord at the beginning of Face A. If we set He = I, we get ISa and a good parallel to the Greek word "ις". So "power" would be required here. "Power" would also give a good sense in

line 13) for [Na] I Ve, the contribution of the SiPaPaSu, but we have run out of S-sounds frequent in LinA. So let us adopt Ve = So and hope for the identification of the syllable So in LinA. Thus, we get:

3) SaNaQa I Sa[ToSe], 13) [Na] I So and further 15) VuNaKaSo.

But what to do on the island Siphnos? The 16) ARuGi[ToSe] have the same initial syllables as in 7) ARuKoRa = "Silver", and silvermines were active indeed on Siphnos at that time. With the remaining K-sound Qe we can form ARuQe[ToSe] = "silvermines". And the very same phonetic syllable is then assigned to the suffixum verbi [Gi] = "he (was, did)".

We still have two examples for Ya in:

10) AYu TaKaTu[Su] AKaJaWi[Se] ANaDaFoYa NiAKe[Su][Qe] and  
 12) AYu[Su] MaNi[Su] NiAKe[Su] RaSaYa[Se] [MeDa]QaJaWi.

If we set Ya = Re, we get a reasonable onomatopoeic word RaSaRe[Se] for a furious action (perhaps in this case Se is no particle), and the remaining Fo in AnaDaFoRe can be set We to give ANaDaWeRe as "enemy".

For the ship-related word in line 15), now VuNaKaSo, we still have the syllable Wa to make it WaNaKaSo, perhaps in minoan times a colonial "fleet-leader" who later became the independent "Wanax".

For 4) and 6) RaBo with the presumable meaning "open", we spend Du and make it RaDu. The word 8) MeRuGa[ToSe] with inserted Ju would become MeRuJu[ToSe], to which word the meaning "part-takers, participators" can be given.

The code Ha is orphanized in the sequence

15) [MeDa]RaMa WaNaKaSo [To]SiPaMe SaTa[Qe]  
 16) Ha KaTi[Se] [Ja]AYu[Sa] ARuQe[ToSe],

with the probable meaning "with the Goddess fleet-leader to-the-Siphnosian ready-he HaKaTi[Se] of-his silver-mines". As this feat probably has to do with fighting, we assign Ha = Pu. It cannot be seen from these lines, whether the Takatusu had to deprive an adversarious or treacherous Wanakaso of the mines, or whether he only helped to install his local agent in his former rights. As the story is told not as a main feat, but as a corollary episode when sailing back, the author tends to the latter alternative.

The major remaining code to be assigned phonetics is Yu in AYu = "he". And the only useful sound in the remaining phonetics seems to be the vowel U. So we get "he" = AU with some reminiscences to Greek and also to Semitic. Considering the U-sound in the independent pronoun "he", one would also expect it in the suffixum verbi formerly [Gi] now [Qe] to be better [Qu], despite the fact that also this syllable is not (yet) identified in LinA. So we get Qe free for the last assignment Lu = Qe.

Finally, we achieve a fully phonetic version in "approximate Minoan" as stated in **Fig. 5**.

<b>Face A</b>	
1)	[Nu]DoRi RaMa PoTi[Ja]SaSa[ToSe],
2)	[Nu]DoRi [Ja]DiKa RaMa[ToSe],
3)	[To]KuRo [DiDe]NaWi SaNaQa I Sa[ToSe].
4)	KuRo[ToSe] RaDu NaKaRiTasa[Se].
5)	KuRoToSe] KaMe PoTi[Ja]SaSa[ToSe].
6)	KuRo[ToSe] RaDu NaKaRiTasa[Se] EDa NuKaQa[ToSe].
7)	ARuKoRa [Ja]DiKo[ToSe] [Ja]KuRo [?]NaWi[ToSe]
8)	NiKi[Sa] [To]AU[Sa] MeRuJu[ToSe].
9)	TuSu[Su] AU[Su] [To]RuPa [Na]RaMa[ToSe].
<b>Face B</b>	
10)	AU TaKaTu[Su] AKaJaWi[Se] ANaDaWeRe NiAKe[Su][Qu].
11)	PaNaKa[A] AU[A] [Ja][Na][A] TaKaTu[Sa] NiAKe[Su][Qu].
12)	AU[Su] MaNi[Su] NiAKe[Su] RaSaRe[Se] [MeDa]QaJaWi
13)	RaMe[Su] [Na] I So [Ja]SiPaPa[Su].
14)	RaNuTa[Sa] RuKeKu[Se] [Ja]RuPa[A] TaQeTi[Qu] [Na]RaMa[A]Te.
15)	[MeDa]RaMa WaNaKaSo [To]Si PaMe SaTa[Qu]
16)	PuKaTi[Se] [Ja]AU[Sa] ARuQu[ToSe].

**Fig.5: Fully phonetic version of the Diskos-text**

An interpretation of this text, most closely keeping to the "Minoan" sequence (and omitting the spread of the necessary question-marks) would be:

<b>Face A</b>	
	We-invoke Goddess Mighty-of-the-Hills,
	We-invoke of-the-ten Goddesses,
	To-Lord give wholesome-powers.
	Lordesses open harbours.
	Lordesses worship Mighty-of-the-Hills.
	Lordesses open harbours and navigation.
	Silver of-the-tithes of-the-Lord spenders (f.)
	victory to-his participators (f.).
	Protection his to-the-land by-Goddesses.
<b>Face B</b>	
	He Takatusu Achaians adversary victorious-he(was).
	Fleet-the his-the of-by-the Takatusian victorious-he(was).
	His hand victorious raging among-Achaian
	divine by-power of-Sipapasu.
	Shipping returnees of-land-the led-he by-Goddes[-the-]ses.
	With-Goddess Wanakaso to-Siphnosian finished-he(has)
	fight of-his silver-mines.

Or, as a free translation in the proposed order of the two Faces:

### Face B

He the Takatusu has beaten the hostile Achaians.  
 By his Takatusian fleet he was victorious.  
 His victorious hand raged among the Achaian  
 by force of the divine Sipapasu (Minoan God of War?).  
 He led the return shipment by the Goddesses of the land.  
 Under the Goddess he finished the fights of the  
 Siphnos-Wanakaso for his silver-mines.

### Face A

We implore the Goddess Mighty-of-the-Hills,  
 we implore the Goddesses of the ten,  
 give wholesome powers to the Lord.  
 Lordesses open harbours.  
 Lordesses give thanks(?) to the Mighty-of-the-Hills.  
 Lordesses open harbours and navigation.  
 Spend silver of the tithes of the Lord  
 taking part in his victory.  
 His Protection to the land by the Goddesses.

## 3 Poetics and Metrics

The structure of the text already hints at a poetic product. Considering the selection (as far as assessable) and position of the words, this perception cannot be denied any more. Who would say

11) PaNaKa[A] AU[A] [Ja][Na][A] TaKaTu[Sa] NiAKe[Su][Qu]  
 = "Fleet-the his-the by-the-same Takatusian he won", when he could have easier said:

NiAKe[Su][Qu] [Na]PaNaKa[A] AU[A] TaKaTu[Sa]  
 = "He won by fleet-the his-the Takatusian".

In fact the poetic intention is almost fully clear on Face B, which has a Paeon-metric with four feet and a major and a minor accent — ♪ ♪ ♪ throughout. Imitating a pronunciation which would have fitted that intent, we surmise the text of Fig. 6. The letters in brackets are mute.

10)	—̣	~̣	̇	~̣	—̣	~̣	̇	—̣	~̣	̇	—̣	~̣	̇	—̣	~̣	̇	—̣	~̣	̇	—̣	~̣	̇			
	A	Ū		Ta	Ka	Tu	Su		AKa	Ja	Wi	S(e)		AŃ(a)	Da	We	Re		N	ja	Ke	Su	Chu		
11)	—̣	~̣	̇	—̣	~̣	̇	—̣	~̣	̇	—̣	~̣	̇	—̣	~̣	̇	—̣	~̣	̇	—̣	~̣	̇	—̣	~̣	̇	
	Pa	Na	Ka	Ā		A	Ū	Ā		Ja	Na	Ā		Ta	Ka	Tu	Sa		N	ja	Ke	Su	Chu		
12)	—̣	~̣	̇	—̣	~̣	̇	—̣	~̣	̇	—̣	~̣	̇	—̣	~̣	̇	—̣	~̣	̇	—̣	~̣	̇	—̣	~̣	̇	
	A	Ū	Šu		Ma	Ni	Su		Ni	AKe	Su		Ra	Sa	Re	Se		Me	D'a	Ch(a)	Ja	Wi			
13)	—̣	~̣	̇	—̣	~̣	̇	—̣	~̣	̇	—̣	~̣	̇	—̣	~̣	̇	—̣	~̣	̇	—̣	~̣	̇	—̣	~̣	̇	
	Ra	Me	Su		Na	I	So		Ja	Si	Pa	P(a)	Su												
14)	—̣	~̣	̇	—̣	~̣	̇	—̣	~̣	̇	—̣	~̣	̇	—̣	~̣	̇	—̣	~̣	̇	—̣	~̣	̇	—̣	~̣	̇	
	Ra	Nu	Ta	Sa		Ru	Ke	Ku	Se		Ja	Ru	Pa	Ā		Ta	Ch(e)	Ti	Chu		Na	Ra	Ma	Ā	Te
15)	—̣	~̣	̇	—̣	~̣	̇	—̣	~̣	̇	—̣	~̣	̇	—̣	~̣	̇	—̣	~̣	̇	—̣	~̣	̇	—̣	~̣	̇	
	Me	Da	Ra	Ma		Wa	Na	Ka	So		To	Si	Pa	Me		Sa	Ta	Chu							
16)	—̣	~̣	̇	—̣	~̣	̇	—̣	~̣	̇	—̣	~̣	̇	—̣	~̣	̇	—̣	~̣	̇	—̣	~̣	̇	—̣	~̣	̇	
	Pu	Ka	Ti	Še		Ja	Ā	Ū	Ša		ARu	Ch(u)	Tō	Še											

Fig. 6 : Prosodic version of Face B

From this attempt we can draw some conclusions:

- The syllables marked in red, mark the position of the "strokes" or "thorns" in the text of Face A. Their correlation with the metric seems to provide syllable-accent off the regular intonation.
- If the assignment he = AU is correct, the vowels A and U of the diphthong - in order to keep the rhythm - have to be spoken separately. This might have induced the continual "thorning" of the A in AU, when A bears the major accent.
- The changeover from 10)  $\overset{\sim}{A}\overset{\sim}{K}\overset{\sim}{a}\overset{\sim}{J}\overset{\sim}{a}\overset{\sim}{W}\overset{\sim}{i}\overset{\sim}{S}(e)$  to 12)  $\overset{\sim}{M}\overset{\sim}{e}\overset{\sim}{D}'\overset{\sim}{a}\overset{\sim}{C}h(a)\overset{\sim}{J}\overset{\sim}{a}\overset{\sim}{W}\overset{\sim}{i}$  with a slur over from MeDa and giving the K-sound by Qa (as Kx- syllables were no more available) is indeed enforced by the metric. Further the a of Qa has to be suppressed. This invites a pronunciation of Q as Ch (voiceless guttural fricative like Scottish Loch Ness). This sound was generalized here for the whole Q-series.
- Also the short female plural suffix  $-[Te]$  in 14) springs from metric necessities.  $[Na]RaMa[A][ToSe]$  or  $[Na]RaMa[ToSe][A]$  could not have been fitted to the Paean.

The poetic structure of Face B is not as clear and is variable. Lines 4) to 6) would resume the Paean, but the leading lines 1) to 3) and line 7) ff. , despite their thorns, do not show an evident prosody.

#### 4 Further Observations

The singly applied female plural  $-[Te]$  enforced by the necessities of the metric shows, that at the time of the production of the Diskos this suffix was already in use, and probably had replaced  $-[ToSe]$  in the common language. Why then  $-[ToSe]$  ? We must assume that the language of the DoPh was not only poetic, but also stylish and following models which were - even at its time - already antique.

In [9] the author, seeking an explanation for the peculiar distribution of the DoPh-corrections, came to the opinion that the outer windings of the Diskos were printed in reading direction, thus giving the printer the facility to understand the text and be induced to apply more common language. In fact, all the incidences here correct the feminine plural suffix by imprinting the "To" of  $-[ToSe]$  over some prior character. So the earlier print was not just  $-[Te]$ , but bi-syllabic. One could imagine  $-[TeSe]$  as some intermediate form, and in fact, as shown in Fig. 7, this suspicion can be verified for the last word of Face B.

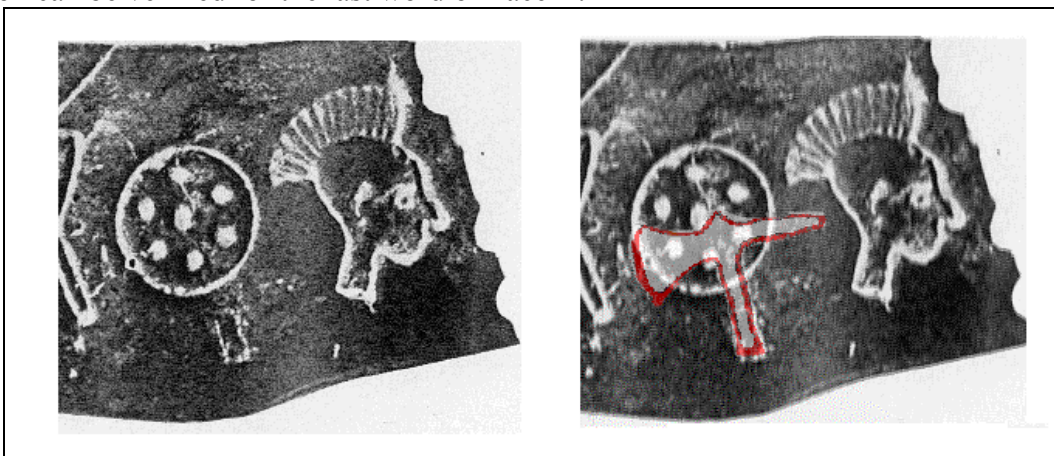


Fig. 7 : Remains of the character "Te" (hache) under character "To" (shield)  
(Picture from Olivier [16], mended )

As, in Fig. 7 right, there is some intercalation of the forms of "hache" and "featherhead", the mistake must have been regarded immediately and corrected before printing the character "featherhead". For the corrections of **-[ToSe]** in other positions, the under-print seems to have been a larger character, which cannot be reliably identified.

Another case to be noticed is the person of the Takatusu: Owner of the fleet, commander-in-chief, exacting tithes and probably colonizing abroad on his own account. In the internal affairs he is not "I" but only "He" and, maybe, officially regarded as an employee of the Goddesses and the priestesses. What a difference to the Egyptian and Mesopotamian rulers! On the other hand, the characters printed central in the two Faces might indicate the real relative importance: They are "He" and "We".

The form of the Face A text also requires some notice. Here we have at first three lines invocation. Then an order to the local (?) administration as for the harbours and the financing of the victory-celebrations, and then the closing remark. Could that not be the official form of a Minoan government-decree, with the fixed parts invocation and closing, and the variable text in between? Not so very religious as deemed beforehand.

## 5 Conclusion

In his "Palace of Minos" [<sup>17</sup>] Sir Arthur Evans ascertains the Phaistos Disk text to be

- ....mainly concerned with some maritime expedition, probably of a warlike kind.
- a....metrical composition....may well represent a chaunt of Victory.

A Genius knows.

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