

ATINER CONFERENCE PRESENTATION SERIES No: LNG2018-0086

**ATINER's Conference Paper Proceedings Series**

LNG2018-0086

Athens, 12 September 2018

**Ancient Scripts of Crete: The Phaistos Disc Script – the Structure  
of the System**

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LNG2018-0086

Athens, 12 September 2018

ISSN: 2529-167X

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**ABSTRACT**

1. The system of the syllabic-logographic script of the Disc of Phaistos (PhD) is analyzed in the paper.

2. The Phaistos Disc script is dated only approximately, but as the dating of the three shorter inscriptions of the same script that have also reached us is quite convincing, it is possible to say that PhD script was in use in Crete at least for about 500 years since the first quarter of the 2nd millennium.

3. The inscriptions are imprinted along the spiral line with pictographic signs on the wet clay disc with golden stamps of repeated use. Judging from the symbolic meanings of the pictographs, the inscriptions were declared to be hymns addressed to the Great Mother Goddess Rhea-Cybele or Nenana.

4. It was considered impossible to read the texts because they were supposed to belong to some extinct culture and language.

The inscriptions of the Disc were deciphered by G.Kvashilava in the Common Kolkhian (Laz, Megrelian and Meskhian) – the ancient branch of the Common Kartvelian (South Caucasian) language. Material that supports this deciphering is given in the paper.

5. The problems concerning the inner system of the script are worked out in the paper, these are:

the direction of reading the inscriptions – which is out from the center of the spiral;

G.Kvashilava's algorithm presented for the phonetic reading of regularly rotating pictographic signs;

acrophony as the systemic feature of the script;

paradigmatic and syntagmatic structuring of the script system;

originality of the script;

the features of the script characterize it as a 'phonic script' (in Saussurean meaning);

the systemic anagrammatic structuring of the script presents it as the most consistent attested example of ancient anagrammatic texts.

No particulars of the process of deciphering are discussed in the paper – they have been successfully presented elsewhere in vast material by the author of the decipherment.

**Keywords:** the Phaistos Disc script, algorithm for reading, acrophony, anagrams, phonic harmony.

## Introduction

My paper concerns an Ancient Kartvelian script of Crete – the syllabic-logographic writing of the Disc of Phaistos (PhD). This is an attempt to analyze the inner system of this script.

The famous Disc of Phaistos was found in Crete during the excavations of the ancient Palace of Phaistos in 1908. J.Chadwick wrote: “No account of writing in Crete would be complete without a mention of the famous Phaistos Disc.” (Chadwick, 2014: 19-20).

This is a clay disc on both sides of which the separate *pictographic signs* are imprinted *with golden stamps* of manifold use. The stamps are generally considered to be the inheritance of Mesopotamian culture but their use in Cretan inscriptions for *printing texts* is *unique*.

The pictographs are printed along *the spiral line*. These are the signs representing: a lion’s head, a bird of prey, a boat, a bee, a fish, a head of a Koribas, a rosette, an axe, etc. The texts are imprinted with 45 stamps of pictographic signs. According to John Chadwick, “...this use of standard forms was a remarkable *anticipation of the invention of engraving and printing*.” (Chadwick, 2014:19-20). Chadwick certainly meant the first books in Europe printed by Johann Guttenberg, and some years later – by William Caxton about three thousand years later in the XV century Europe.

The Phaistos Disc script is dated only approximately, but three shorter Cretan inscriptions made in the same script have also reached us. These are: the Malian Stone Block inscription that is dated back from 1800 to 1700 BC, the inscription on the Alkalokhori bronze axe dated back to the 16<sup>th</sup> century BC, and that on the Phaistos Vase dated from 1400 to 1300 BC. The PhD script is thus proved to have been in use in Crete at least for about 500 years since the first quarter of the 2<sup>nd</sup> millennium.

The most important researches have been carried out concerning graphical analysis of Disc signs, mythology and symbolic meanings of its pictographs; it was unanimously deduced that the inscriptions were hymns (or prayers) to the Great Mother Goddess – Rhea-Cybele or Ninana (Side A of the Disc) and Korybantēs (side B), asking for protection from disaster and calamity. In this respect the inscriptions of the Disc are instances of *literary texts*.

It was also declared that the language of the PhD texts is neither Indo-European nor Semitic. Numerous attempts were made to read these inscriptions as belonging to one or another language but they were not supported by the consistent linguistic data which is certainly always necessary at the final stage for the verification of any decipherment. It was generally considered impossible to decipher PhD inscriptions because they were supposed to belong to some ancient and extinct culture and language, and the Disc was called ‘the enigma of the 20<sup>th</sup> century’. G.Ipsen wrote that reading the Disc inscriptions depended on the favour of the situation, and the Disc itself was dumb (Ipsen, 1929:1-41).

In 2008 the decipherment of PhD inscriptions in South-Caucasian *Ancient Kartvelian Language* was presented by G.Kvashilava at the London

Conference dedicated to the 100<sup>th</sup> anniversary of finding the Disc of Phaistos in Crete. It should be underlined that the decipherment is fully supported by the comparative and inner reconstruction studies of morphophonemic system of Common Kartvelian languages carried out by Th.Gamkrelidze and G.Machavariani; their fundamental work was published in 1965.

The analysis of the linguistic material made it possible to define more exactly the period of the Ancient Kartvelian to which the Phaistos inscriptions belong: more appropriate term, namely *Common Kolkhian* has been suggested to denote the period of the ancient Kartvelian when *PhD* and *Linear A* scripts were employed. The term denotes Laz, Megrelian and Meskhian group of Kartvelian languages after Svan had split off in the 3d millennium BC. The Phaistos script (as well as LA) have been deciphered fully by G.Kvashilava, and the whole material of about 900 pages of his wide range etymological studies have been published both in Georgian and English during 2006-2017.<sup>1</sup> Ample data of Kartvelian dialects as well as of other ancient languages were also studied by G.Kvashilava.

The speech signs of the Phaistos inscriptions are fully-open-syllable words – two syllables in a word, and, which is important, the *vowel of the last syllable is of a full vocalic quality* (Gelb, (1965:155-158).

I would like mention here again John Chadwick who supposed that if a language could be found which used a word like “ku-ro” meaning “all”, “total”, the problem of identifying the language of LA might be solved (Chadwick, 2014:155-156). The analysis of LA agricultural accounts by Kvashilava has shown the clear Kartvelian etymology of this stem.

The results of the study of the system of PhD script are presented below.

**1.1. *The direction of reading*** is one of the most important issues in studying ancient scripts, because the reading direction of inscriptions might influence the results of the decipherment.

It was certainly not simple to find out what regulates and determines the direction of reading of Disc inscriptions because its pictographic signs (round ones excluded) rotate taking one to four different – horizontal or vertical – positions along the spiral line on the Disc. E.g. PhD29 (a lion’s head) is presented in four positions, PhD 31 (a bird of prey) – in three positions, PhD8 (a glove) has two positions like PhD 25 (a boat), PhD33 (a fish) has one position only.

Regular rotations serve particular functions in PhD inscriptions as well as in other inscriptions of the same script with the demanded-by-the-context positions of the signs: the same PhD33 takes two positions on the Phaistos vase, and PhD32 (a dove) and Ph14 (a yoke) are horizontal differently from its vertical position on the Disc.

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<sup>1</sup> The whole material of G.Kvashilva’s decipherment was published in Georgian and English during 2006-2018, mostly in: *Studies in History and Ethnology*, Ivane Javakhishvili Institute of History and Ethnology; in: *Kartvelology*, Giorgi Tsereteli Institute of Oriental Studies; and in: *Issues in Linguistics*, Ivane Javakhishvili Tbilisi State University.

It was only to be expected that in the cleverly built up system like PhD script the direction of reading had to be clearly indicated in the inscriptions in some way or other. G.Kvashilava's study showed what special characteristic features determine the direction of reading of the Disc script.

Firstly, the beginning of the texts are marked with special symbols on both sides of the Disc: in the centre of the spiral line of side A there is *a rosette* – a symbol of the sun and the beginning (Kean, 1990) and in the centre of side B of the Disc there is *a spiked helmet (or a hood)* – a symbol of the moon, also implying the beginning. According to the placing of these symbols the reading of the Disc texts should begin from inside of the spiral – from left to right.

It should be added that the general symbolic meaning of any movement along the spiral line *from inside out* (i.e. from left to right) means evolution, creation, but the movement from its *outer point to inside* implies regeneration and destroy (Ad deVries, 1981:436). It is impossible to imagine that the texts of religious or ritual character like Disc texts imply regeneration and destroy. So the spiral itself as a symbol implies that the reading should be directed from the center out.

Very simple, but exceptionally rare division marks – vertical lines or bars break up the texts into words; and the special sign – a vertical line with five dots on it at the outer end of the spiral indicates the end of the inscriptions on both sides of the Disc. The vertical lines in Cretan scripts are also used in LA inscriptions.

The geographical area of using division marks in ancient scripts is rather restricted (Ipsen, 1929:17). These special features so rarely used in ancient writing systems are characteristic of Asia Minor scripts. (A. Evans supposed that the Disc was of south-east Asia Minor origin). The most characteristic feature of these scripts are the division marks used in the inscriptions - first used in Cappadocia in the 19<sup>th</sup>-18<sup>th</sup> centuries BC; also used in Elamite, Luvian, and later borrowed into Persian (Gelb, 1965:166-167; Hooker, 1990:150).

Division marks - dots and vertical lines - were regularly used in Old Georgian inscriptions; they were used in the oldest Biblical texts (the 5<sup>th</sup> century A.D.). After the 400-year of Arabian reign in Georgia the decreased use of division marks were renewed and systematized by Georgian monks on Athos and in Antioch in the 11<sup>th</sup> century. Punctuation has always been the object of special attention of Georgian scholars.

It could be now concluded that the direction of reading the Phaistos Disc inscriptions is defined as left-to-right by division marks, symbolic meanings of certain signs in the centre of the spiral, and of the spiral line itself.

The left-to-right direction of writing and reading inscriptions has been historically preserved in Kartvelian scripts.

## **1.2. Algorithm for Deciphering PhD Script**

As already mentioned, pictograms of both PhD texts as well as of the three other shorter inscriptions of this script always change their positions along the spiral line: they are positioned strictly either horizontally or vertically.

Horizontally placed pictograms change their positions – ‘looking’ left or right, and vertical pictograms are directed upward or downward along the spiral.

G.Kvashilava has presented the algorithm for reading PhD inscriptions that showed that the rotations are not sporadic – *they follow* some inner regulations and carry implications for reading rules. It should be noted here that *most pictograms* of the PhD inscriptions are printed *vertically upward looking* from the spiral.

The algorithm for phonetic reading of pictograms in their different positions is valid for all PhD inscriptions without any exceptions (Kvashilava, 2008:216-218). We should remember that the PhD script was from the very beginning declared to be a syllabic-logographic writing: G. Ipsen (1929) wrote that the Disc was a “real script”, meaning that *its pictograms* were speech signs, and the inscriptions should be read *as speech units*; and added: “here [in this real script of PhD] pictographs denote *syllables* and *words*...” and then: “...this is not the result of historical development, but unique (*einmaliges*) and remarkable achievement... independent from other scripts” (Ipsen, 1929:10-11, 15).

It will be seen below how the signs of the pictographic system of PhD are used to denote phonetic forms of words as well as syllables, thus fitting the pattern of the syllabic-logographic script.

The rules of Kvashilava’s algorithm are briefly presented below:

a. *Horizontally* printed pictograms function as *logograms*:

- If directed from *left to right* (the position is called ‘initial’ by the author), a horizontal pictogram is read as *a word* – as a logogram;
- In the *right-to-left* horizontal position a logogram is read in reverse – the last syllable of the word read first, and the first syllable is read last.

Such ‘back-to-front’ reading *as a systemic* feature can certainly be used only in the script with *the strictly fixed direction of reading*.

b. *Vertically* printed pictograms are *syllabic signs*:

- If a sign is oriented *upward* from the spiral line, it is read as *the first syllable* of the word. *As already mentioned above, the vast majority of PhD pictograms on the Disc are printed in this position.*
- If a vertical pictogram is positioned *downward* from the spiral line, *the second syllable* of the word is read. (This position is not used for PhD31 in Phaistos inscriptions).

G.Kvashilava’s algorithm has presented the way of *reading* the signs ‘as speech units’, and pictograms *are read* as words, words in reverse order, initial or final syllables of words according to the positions of these signs to the spiral line.

The following pictograms are printed in ‘initial’ - left-to-right direction on the Disc: PhD2 - a head of a Korybas, PhD31 – a bird of prey, PhD 29 - a lion’s head, PhD25 – a boat, and on the Phaistos Vase and Malian Stone Block – PhD32 – a dove, PhD33 – a fish, and PhD 14 - a yoke. They are read as full words.

Pictograms printed horizontally from right to left are read *in reverse*. The result of reading is (or could be) a new word. Such are: PhD15 – an axe, PhD 31 – a bird of prey (a horn), and one of the positions of PhD29 - a lion (copper).

For pictographic signs that are printed vertically and down from the spiral line, as e.g., PhD44 – a man’s head, PhD28 – a leg of an ox, also PhD31 and PhD29 in the same positions, second syllables of words are read.

All other signs on the Disc are *acrophonic* - the initial syllable of the word is read in these cases. It should be underlined here that this four-variant reading of words with the changing order of syllables is made possible by the special and rare phonetic structure of the language of the inscriptions.

**1.3. The algorithm for reading PhD script signs** is the most important achievement in the study of this script. It reflects the exceptional character of this word-syllabic writing, and it is of the particular interest from the point of view of the inner structure of the script, namely, in the system of the PhD script pictograms are *paradigmatically* polyphonemic, because *the system* allows for *four positions and four phonetic readings* for each of the pictogram.

But also, in syntagmatic ordering of signs the system is also equipped with strict rules which determine only one sign-position in each particular case of ordering the signs in inscriptions. The rules *govern the sign-positions* in *inscriptions*, so that *syntagmatic* functioning of each sign allows *only one position* and, consequently, *only one phonemic reading* for each particular pictographic sign *in a written text*.

This unambiguous, ‘one-to-one’ equivalence between phonemic units and their pictographic presentations in the inscriptions of Cretan Kartvelian *scripts* is *quite exceptional*. The unambiguous correspondence between the phonemic units and graphical signs has been traditionally preserved through the whole history of Kartvelian scripts up to modern Kartvelian (Georgian) alphabet.

Such a *univocal* syntagmatic correspondence between written signs and their phonemic qualities logically implies that PhD script (and with it LA script) is *not borrowed* – unlike the widely spread practice of borrowing scripts in those far-off times. It is clear that the system was *pecially created* for one definite language; according the decipherment it is the ancient form of Kartvelian with its full-syllable word structure – and so, the scripts are *original*.

There is no denying that four thousand years ago a full and detailed phonemic analysis of the language was performed by a great intellect – the brilliant creator of the PhD script. He was very knowledgeable about the phonemic structure of the language, and presented it in the most elaborate and, at the same time, in the simple and clear way with paradigmatically polyphonemic and syntagmatically unambiguous system. Such unambiguous functioning in speech and writing is the feature *quite unique* in ancient writing systems, and rather rare in modern writing systems, too.



#### 1.4. Acrophonic Structure of PhD Script

Acrophony means the special notation of *initial* syllables of words in writings. According to I.J.Gelb, G.Ipsen and others the principle of acrophony is *a special structural feature that marks out the PhD script* (Gelb, 1965:Chapter V; Ipsen, 1929: 41). The use of acrophony is extremely rare in ancient scripts; this principle of phonetic notation as a systemic feature in scripts *is quite a unique quality of Cretan scripts initiated in the PhD script*.

Script theoreticians consider the use of acrophony to be an exceptional and special inner systemic feature of scripts that has brought important results to the general development of script. It is the first and the most important step for introducing *phonetic 'speech'* elements into ancient pictographic writings.

Pictography indicated nothing about the language of the script and its phonic character. This often caused indeterminacy and vagueness of understanding inscriptions of ancient scripts (Neumann, 1958:156-158). *The sense of the inscription was to be guessed and interpreted* in accordance with cultural or individual habits and ability of an 'addressee': *phonetic reading was disregarded*.

This insufficiency was overcome in the Cretan writing system of PhD script with introducing *acrophony* as the special means of indicating phonetic qualities of pictographic signs: *syllabic signs* and *the syllabic structure* of words were thus introduced into the system of pictographic writing. A new stage in the general development of script was thus created, and *the visual perception* of the inscriptions was changed *phonetic reading*. The general processes of *reading* the signs of ancient scripts and *full understanding* of the contents of written texts were begun with acrophony.

There is no doubt that introducing acrophony into a writing system was made possible by the *preliminary phonemic analysis* of the language. The phonic qualities had been abstracted from visual features of pictograms, and a speech unit – a logogram had been broken up into syllables. *The result is a principal transformation of a visual pictographic writing into a phonic word-syllabic script*. This most complex process is not only carried out, but also *demonstrated* in the PhD inscriptions. In its inscriptions pictographs denote not only words, but also – and mostly – initial syllabic units. According to I.J. Gelb, *no other example of the purposeful and systemic use of acrophonic writing in ancient script systems has been attested as yet*.

**1.5.** The example of the *unambiguous correspondence* between writing and speech was introduced into *the general process of script development* as a result of employing acrophony in PhD writing system. The creativeness of this way of expressing phonetic qualities in written texts is confirmed and carried on by Linear A script and its system. The development of syllabic systems must have stimulated the further phonemic analysis of speech units and, consequently, *the process of creating alphabetic writings*.

“And although the exact nature of the influence on the formation of an alphabetic script in the Syrian-Palestinian area is not known, the Aegean participation in the formation of the alphabet cannot be neglected” (Földes-

Papp, 1987:102f.). H.Haarmann (1989:251-275) also presents the citations from H.G.Buchholz:

“Apart from its role as a mediator of European Literacy in the contacts with the Near East via Ugarit on the Syrian coast, Crete played a significant part in the spread of alphabetic writing within the Aegean. It has been attested only recently that the first variant of the Greek Alphabet originated in Crete where the Phoenician script was known as early as the 11th century BC. Remarkably enough, Mesopotamian literacy has never exceeded the boundaries of the Orient, that is it has never spread into Europe. Different is the situation of the ancient Mediterranean cultural complex and its tradition of writing. There are clear traces of the impact of Aegean writing system in the Near East and Asia Minor during the 2<sup>nd</sup> millennium BC” (Buchholz, 1960:126 ff.).

H.Haarmann himself expresses this idea as follows: “Die Erinnerung an die Schriftkultur Kretas lebte in der hellenischen-römischen Zeit weiter, und schon damals glaubte manche, dass die Schrift, aus der das Alphabet entstanden ist, nicht von den Phöniziern erfunden worden sei, sondern ursprünglich aus Kreta stamme” (Haarmann, 1998).

It was in the system of Cretan scripts that ‘fully developed syllabic writing’ evolved. The ‘point-to-point’ system was attained through the careful phonological analysis being in itself a complicated matter (Gelb, 1965:164).

The process did not take place in other word-syllabic writings. “... near as some of the phases of word-syllabic writings were to the development of full syllabary, they never quite reached it. The reason for this does not lie solely in the conservative attachment of a people for their own writing. It is rather the protection of vested interests of a special caste, religious (Egypt, Babylonia), or political (China) that may have been responsible for maintaining a difficult and obsolete form of writing, making thus its general use by the people impossible” (Gelb, 1965:164-165). It should be noted here that archeologists suppose that *LA was taught in certain rooms of the palace of Knossos in Crete – LA could be read and written by many.*

It could be said that the Ancient Kartvelian language and its original scripts with attested texts are now about 40 centuries old: these are the inscriptions on both sides of the Disc are hymns – prayers for a protection. These texts are, of course, to be named with the oldest literary texts come to us from the ancient times, and they are also the oldest literary examples of Georgian literature and of the hymn as a literary form.

I would like to end this part of my paper with the citation from G.Ipsen (1929:16): “Für die Art und den Rang jener größten Zeit des Alten Orients ist die Entstehung der Schrift von Phasetos vorbildlich: dass Ineinandergreifen und Durchwachsen verschiedener Kulturen hat nicht sowohl farblos geläufige Allerweltsformen erbracht, sondern wirkte als schaffender Reiz, der allerorten eigene Bildungen auslöste. Der Austausch einzelner Formen fehlt zwar nicht, doch ist er nicht das Wesentliche. Das Fremde wurde nicht als solches übernommen, sondern erzeugte, auf seinen Sinn, auf seine Prinzipien zusammengezogen, im Andern Eigenes. Das ist das Höchste, was eine

Gemeinschaft von Reichen wirken kann. Worum es sich hier handelt, das zeigt am herrlichsten auf ägyptischen Boden der Glaube Echnatons und die Kunst von Amarna. Damit wird der Diskus zu einem Sinnbild der geschichtlichen Lage seiner Zeit. Der Diskus tritt nun unverhofft aus seiner Vereinzelnung und gerät in jener Wirbel der Geschichte, der ungefähr von 1700 bis 1200 v. Chr. eine gemeinorientalische Gesittung erschuf.”

**2.0.** One more feature which forms a most distinctive character of the Phaistos Disc script is the explicitly *anagrammatic structuring* of its system, which might be considered as a logical result of the above-mentioned features of this script, namely, the regular rotation of pictographic signs and their phonetic and visual variance connected with it.

**2.1.** Anagram is usually defined as the poetic device that changes the ordering of syllables of the given word, the result of which is the new ordering or a new sequence the elements of which can be scattered *ad hoc* in the text.

Considering anagrams to be the important poetic attribute of old Indo-European poetic texts – smaller hymns, odes, and later – epic, F.de Saussure analyzed the vast material of Indo-European poetry, studying its use and structure. But, as he wrote to A.Meillet, this process was like trying to explain the historical string of events the starting point of which we know nothing about (Saussure, 1977:639-645).

The device of anagram functions first and foremost as *a semantic model*. It is shown below that anagram is burdened with semantic functions even more complicated than, e.g., the unmotivated naming of objects of the outer world in language.

Paradoxically, the semantic role of anagram is *to avoid the direct naming of certain words in the text*: the names of ancient deities (Gods and Goddesses), of heroes or a person to whom the text is dedicated, places and areas – some important and significant information about religious rites that are of special value for the community *should not be named directly*. The motives for such concealment could have been *religious, cultural or traditional demands* caused by *reverence, fear, taboo* or, lastly, by the author’s own inclinations or wish. Such concealment could be achieved by repeating these words with the changed sequence of their syllables.

The stimulus for anagrammatic writing could have also been the religious beliefs according to which addressing God in hymns, prayers, prophesies or invocations would not achieve the aim if the texts do not contain the syllables of the name of God (Saussure, 1977:639-645).

According to F. de Saussure, one more specific quality of ancient Indo-European poetic texts is *more than one necessary repeating of the key-word* that is presented in some disjointed or transposed phonetic forms (Kholodovich, 1977:667). The *necessity* of repeating the key-word *more than once* with the disjointed form in the text should be underlined here. It was this principle of alliterative repetition with semantic implications that was called *anagram* by Saussure (Gamkrelidze and Ivanov, 1984:838).

It could be concluded now that the whole process of creating anagrams is stimulated by *culturally conditioned need of the concealment of certain names*,

and on the other hand *the equal demand* for the semantic and phonetic hinting, ‘imitation’, or reference to the same words.

**2.2.** Anagram is certainly not only semantic device but also a phonetic one because its semantic functioning is carried through with phonetic means. But anagram is not a mere play with sounds. Its functioning is of quite a definite character, namely:

- (1)changing of the order of the syllables of a key-word in the text. The sequence of the syllables are often *given in reverse*, or the order might be changed in some other way;
- (2)as the result of such phonic transposition the initial key-word is *covered up*;
- (3)with *the newly ordered sequence* the phonic forms of the initial word is *repeatedly referred to* in the written or oral text, this is how the significance of the key-word is preserved and underlined.
- (4)it is important that *every syllable* of a word could be potentially involved in the process of re-ordering the syllables of a keyword (Saussure, 1977:640). Such kind of writing was called the ‘*phonic writing*’ by Saussure.

It is clear that the privilege of employing such process of free transposition of the syllables belongs to the language of *phonic harmony (phonic symmetry)*, i.e. the language that is characterized with (1) *full vocalic character of syllables* that are ‘carefully pronounced’; (2) also the language with the quality of *even and full syllabic structure of words preserved in all phonetic sequences*, and (3) the language with *even number of syllables in words* (Saussure, 1977:640). Such are the features of a language system of the *phonic harmony*. In a language without these qualities creating full and well-balanced system of anagrams could not have been possible.

Repeating the syllables of the *sacred name* to which a hymn is dedicated (semantic functioning), and *phonic writing* are the two features that are named by Saussure as characteristic to anagrammatic device. Phonic writing and creating anagrams should be allowed by certain phonic qualities of the language.

*Phonic harmony* and *phonic symmetry* of a script is revealed in the result of conscious and deliberate phonetic analysis of the word structure (Saussure, 1977:639-645).

If every syllable – all of them being of the same full vocalic quality – of the word can be used in creating phonic symmetry of words or of the text, it should be concluded that such phonic clusters do not depend on the verse, its feet or stress-placing, and the given poetic (anagrammatic) form is structured independently from the rhythmic scheme of the verse: it is based on another principle (Saussure, 1977:639). Saussure insisted that the poet – the creator of such poetry was fully occupied with the phonic analysis of words which was his usual pursuit. From ancient Indo-European times poet’s concern was the study of phonic qualities of words, and his writings – be it hymns or epic

poetry – were a syllabic poetry presented with careful difference between full vowels in syllables.

Some words should be added about the old Indo-European phonological system that was characterized by the morphologically relevant dynamic stress that formed inflectional and derivational oppositions in language systems with shifting from one syllable of the word to another. The process naturally caused the weakening or loss of a vowel of the unstressed syllable; the phonological result of which were consonant clusters typical for Indo-European. F.de Saussure called them “coarse” (Saussure, 1977:644).

I have already underlined above that the PhD script is a script of a full vocalic language system: all vowels always retain their full quality in words and remain evenly vocalic when transposed in rotated positions of the pictographs on the Phaistos Disc. This is the ideal ground for changing the order of syllables in words, and creating the device of anagram.

The PhD script system is the *archetypal example* of employing the most rare and outstanding features of acrophony and anagram as the basis *for structuring its ancient script system*, and the texts – hymns of the Disc can be pronounced to be the most consistent attested examples of anagrammatic texts.

## Conclusions

1. Reading of the inscriptions of the Disc of Phaistos is proved as being of the left-to-right direction. This was defined by the division marks of the texts, symbolic meanings of certain signs and of the spiral line.
2. The algorithm for reading the PhD inscriptions presented by G.Kvashilava defined the phonetic reading of its pictographic signs as words or syllables.
3. The system of the syllabic-logographic PhD script is paradigmatically polyphonemic and syntagmatically univocal with one-to-one correspondence between speech sounds and script signs.
4. Purposeful and systematic use of acrophonic writing of the PhD script is unique.
5. Development of a full syllabic system supposedly stimulates the process of further phonetic analysis of speech units, and, consequently, the process of creating alphabetic writings.
6. The Kartvelian language of the PhD script is a full vocalic system – the vowels always fully retain their phonetic quality in all transposed positions. This is characteristic of ‘phonic harmony’, which presents the ideal ground for creating the device of anagram.
7. PhD script is named to be the most consistent attested example of using anagrams in structuring its inscriptions.

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