ALPHABETIC AND SYLLABIC WRITING: Problems of Reading*

Professor Alexander K. Gavrilov is at the moment one of the few Russian scholars who works hard on essential philological issues. One of the numerous questions that attracted his attention for several decades was the problem of reading in Antiquity. I remember the first stages of his research in this field, and for this reason I would like to make this article a small *donum* for his Anniversary.

In the history of Greek culture, at the turn of the 1st millennium BC there was a transition from syllabic writing (the so-called Linear B script, in which each character marked an open syllable) to alphabetic writing. Apparently, this change in the way of recording texts occurred everywhere and concerned not only the set of characters, but also its usage in the largest sense of the word.

During the Mycenaean age (second half of the 2nd millennium BC) texts similar in their content and appearance were created in numerous distant centers. As far as their shape is concerned, clay tablets typically have either palm-leaf shape with one or two lines of text on them, or that of a page. The size of one such tablet exposed at the National Archaeological Museum of Athens approximates that of a standard page. Other tablets are significantly smaller in size and typically equal a quarter of our standard page.

The places where Mycenaean texts have been found are currently the following: the most extensive archives come from Pylos on the Navarino bay shore, and Knossos on the island of Crete. Smaller archives have been found in Thebes, Mycenae, Tyrinth and Chania. This list, though incomplete, shows that the findings cover a significant part of the Balkan peninsula and two areas in Crete, separated by the White mountains which were impassable in the ancient times. Therefore, the similarity of writing techniques must be explained not just by the common origins of local versions of Linear writing, but by deliberate efforts to maintain these writing techniques in distant centers of political and administrative power in Mycenaean Greece.

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We know nothing about the literacy rate in Mycenaean Greece, though recently Emmett Bennett Jr. and Thomas G. Palaima have done scrupulous work that enabled us to identify the hand of each scribe. Thus, we can distinguish hands of several dozen literate Mycenaeans. We don't know what their proportion was in the total population, but, taking into consideration the fact that only administrative texts written on clay reached us, and that in Mycenaean culture other materials were obviously used for writing texts, one may suppose that we know only a small proportion of the literate people of Mycenaean Greece.

Linear B texts, unlike those of the classical period, make use of word division. Sometimes these divisions correspond to those that we would make, but often proclitics and enclitics are considered to be part of the words whose accents they share. Of course, some texts are found with several words written in one, but they make a relatively small part of the total amount of the texts that have been found.

I have already argued that behind such a way of writing there must be a deliberate linguistic choice that lets us speak about the "linguistic thought" of Mycenaean scribes. Naturally, no specific linguistic theories like those we know to have existed in Classical epoch, are meant. It is evident that reflections on language were limited then to the question of how to transcribe live speech and record it with minimal losses. Inflexions were lost automatically, as a native speaker could easily reconstruct the syntactic relations familiar to him. For example, this is what the Mycenaean paradigm of (F) of K of a house' would look like:

Case and number	Mycenaean writing	Greek writing
Nom. sg.	*wo-(i)-ko	(<i>ϝ</i>)οἶκος
Acc. sg	*wo-(i)-ko	(ϝ)οἶκον
Gen. sg.	*wo-(i)-ko-jo	(ϝ)οἴκου
Dat. sg.	*wo-(i)-ko	(ϝ)οἴκῳ
Allat. sg.	wo-(i)-ko-de	(ϝ)οἴκονδε
Loc. sg.	*wo-(i)-ko	(ϝ)οἴκοι

This evidently explains the fact that in the most productive type of thematic conjugation of nouns only the genitive singular and dative plural can be recognized unmistakably. For all the other forms, the same homograph is used. Naturally, Mycenaean texts contain homographic words that reflect

¹ This argument was presented in my unpublished paper "Linguistic Thought of Mycenaean scribes" read at the 11th International Mycenological Colloquium. Austin, Texas. May 7−13, 2000.

real language homonymy, i.e. ὄνος 'a donkey' and ὄνος 'a purchase', which have no common etymology: the second word is derived from the verb ὀνίνημι 'to buy', and the first one is possibly related to Latin asinus, which was borrowed, as well as the Greek word, from an unknown source (probably in Asia Minor). Despite the fact that homographs did exist, it was the word that played the role of the main text unit, and communication of information in Mycenaean time was based on recognizing the word as an essential sign.

Mycenaean civilization ceased to exist around 1200 BC as a result of invasions of foreign tribes and internal problems. After the fall of Mycenaean centers not only a change of culture took place, but also a change in the standard dialect. For the Mycenaean period we know two types of dialect: the so-called "standard" Mycenaean which united at the level of language all the writing schools listed above, and "special" Mycenaean, which was used by some scribes, like scribe N 24, who dealt with issues connected with the property of the King of Pylos,² whose name, according to J. Chadwick's brilliant idea, was Enkhelāwos. Interestingly enough, it was a person from the King's circle who took the liberty of not following the standard spelling rules, but instead introduced new spellings that not merely differed from the traditional ones, but did not reflect the phonetic norms accepted in Mycenaean Greece. It is not unlikely that during the last years of the kingdom of Pylos the norms of Mycenaean koine³ began to be revised. This change could have brought about the attempts to create a new spelling, for the most part aimed at reflecting the pronunciation norm which could have changed due to the influence of speakers of another Greek dialect.

After the Dark Ages period, which came to a close around 900 BC, we find the first attempts in Greece to use the new alphabetic system of writing.⁴ Naturally, syllabic writing was still in use, but it was forced out to the periphery and preserved only in Cyprus, where archaeologists found a short text that goes back to the IX–VIII century BC. The attempts to insist on attributing it to the XI century cannot be considered successful, so in the recent years this

² Th. G. Palaima, "Writing in the Service of the King: Hand 24 and Special vs Normal Mycenaean", *APA Annual Meeting* (Washington, D. C., 1993) 205.

³ At present, the explanation of the single way of recording Mycenaean texts is connected with the idea of a common supradialectal literary language in Mycenaean time; a discussion concerning this issue took place in Brno in 1968. See: *Studia Mycenaea. Proceedings of the Mycenaean Symposium, Brno, April 1966.* Ed. A. Bartoněk (Brno 1968).

⁴ The best work has been written by Heubeck (A. Heubeck, *Schrift* [Göttingen 1979] = *Archaeologia Homerica* III, Kap. X).

inscription is thought to be close in time to early Greek alphabetic texts, among which one of the earliest texts is a poem on a cup from Pithecusae (Ischia), which goes back to the end of the VIII century BC.⁵

Unlike Mycenaean syllabary, which, as we may see, was the same throughout Greece, alphabetic texts give us at least two versions of Greek adaptation of Semitic writing. Even if we leave aside the problems of adapting the Semitic alphabet in Asia Minor (i. e. recording Anatolian languages of the 2nd millennium BC and Paleobalkan languages), in the framework of Ancient Greek culture there are at least two areas where sets of characters different in terms of their composition and shape were used, and unique ways of transcribing double consonants were formed.

Characteristic of early alphabetic writing is boustrophedon orientation, which is found in inscriptions on stones and monumental sculpture in the archaic time. Mycenaean Greece knew no monumental sculpture, nor inscriptions on stone. Alphabetic texts are not normally divided into words (in some texts there are interpunction signs, but there are practically no texts where they are used consistently). Undoubtedly we are facing a different principle not only of recording the text, but also of its "linguistic interpretation".

Alphabetic texts reproduce continuous speech by dividing it as accurately as possible into segments, in which the reader must guess the position of word boundaries and decode the message on the basis of the recorded phonetic sequence. Below is the inscription on a statue given to Apollo as a title (see Ill.):⁷

It is clear that such a manner of using the alphabet represents a principle that is diametrically opposed to the Mycenaean approach to the analysis of continuous speech. We are facing a completely new method of comprehension of language units or, at least, a drastic transition from morphological basis to the phonetic one in terms of recording the text.

These basic principles can probably be considered applicable both for turning speech into a written text and for reading the text. In recent years an approach by which the researchers divide cultures on the grounds of their "Literacy" and "Orality" has become very popular. According to this view

⁵ For the main bibliography, see: Stephany West, "Nestor's Bewitching Cup", *ZPE* 101 (1994) 9–15 and, in Russian, A. И. Зайцев, "Лексико-стилистические особенности надписи на «кубке Нестора» из Питекус" (A. I. Zaicev, "Lexical and Stylistic peculiarities of the inscription on 'Nestor's cup' from Pithecusae"), Язык и стиль памятников античной литературы, Philologia classica III (Л. 1987) 59–65 = А. И. Зайцев, Избранные статьи (СПб. 2002) 197–202.

⁶ A round stone with Linear B inscriptions found 4.1.1993 is questioned by many scholars, despite the authority of Louis Godart who published it.

⁷ L. H. Jeffery, *The Local Scripts of Archaic Greece* (Oxford 1961) Plate 7.



we would attribute both periods of Greek civilization to oral culture.⁸ But there are no reasons to assume that the written text was necessarily meant to be read aloud. Numerous works⁹ have been written on account of this problem, but we consider it to be somewhat minor for this paper.

Rules for reflecting Greek words in Mycenaean texts were formulated already during the decipherment by M. Ventris and J. Chadwick in 1952.

⁸ Of all the latest summarizing works Jocelyn Penny Small's monograph is of special interest: *Wax Tablets of the Mind. Cognitive Studies of Memory and Literacy in Classical Antiquity* (London – New York 1997), especially the sections on reading written texts (p. 19, "Cognitive aspects of reading text"), and chapter 6 (p. 72 f., "The Cognitive Development of the Muses"), in which the author dwells upon Greek memorization techniques.

⁹ See, recently, А. К. Гаврилов, "Чтение про себя в древности (обзор античных свидетельств)" (А. К. Gavrilov, "Reading to oneself in antiquity [a survey of Classical evidence]"), *Hyperboreus* 1 (1994/1995): 2, 17–33; idem, "Techniques of Reading in Classical Antiquity" // *ClQ* 47 (1997): 1, 56–73.

These rules undoubtedly work in cases of encoding speech in Linear B syllabic characters, but they make the mechanism of understanding and decoding it more complicated. In scholarly works remarks can be found that the combination of two Mycenaean signs *e-ke* can be read in sixteen different ways. This statement is founded on applying Ventris' rules not for encoding, but for decoding written Mycenaean texts. It seems incredible that Mycenaean readers had to go over the sixteen versions of reading one after another, and by a deliberate effort chose the only one suitable. It is much more plausible that a scribe, encoding and recording a word with syllabic characters sign by sign, decoded it as a unity, a logogram, upon looking on which he only had to reconstruct the right inflexions and syntactic (including inflectional) relations which were impossible to transcribe. ¹⁰

During the process of encoding with the characters of Greek alphabet (as well as in case with syllabic writing) it was significantly easier to segment continuous speech, but the understanding of the text required more effort to guess the position of word boundaries and to separate out syntactic and inflectional unities, without which it is extremely difficult to understand a text.

Thus, the material we have in our hands pushes us to the conclusion that during an analysis of even the earliest stages of text writing it is advisable to draw a distinction between the writer and the reader. We can only postulate such a distinction for the Mycenaean age, as we can only assume the existence of writing schools with a single approach to teaching, but there is no real material to prove this assumption. For the archaic period in Greece there are also few such materials, but some graffiti are available. In these the Greek alphabet is reproduced in various local versions, including the sequence AB $\Gamma\Delta\Gamma$ ZH Θ I, which is sometimes replaced with AB $\Gamma\Delta$ EYZH Θ I. It is possible that a magical element was included in the alphabetic sequence in such cases. According to a witty supposition of N. V. Shebalin, in the se-

¹⁰ For more detail on problems of reading in Mycenaean epoch see: Н. Н. Казанский, "Читать по-микенски" (N. N. Kazansky, "To read Mycenaean"), in: *Res Linguistica: К 60-летию проф. В. П. Нерознака* (Москва 2000) 10−23; observations presented in this article corroborate conclusions of general works on the theory of reading, cf.: P. Saenger, "The Separation of Words and the Physiology of Reading", in: D. R. Olson, N. Torrance (eds.), *Literacy and Orality* (Cambridge 1991) 198−214; I. M. Schlesinger, *Sentence Structure and the Reading Process*, Janua linguarum. Series Minor 69 (The Hague − Paris 1968) 27; G. Fairbanks, "The Relation between Eye Movement and Voice in the Oral Reading of Good and Silent Readers", *Psychol. Monographs* 48 [215] (1937) 78−107.

¹¹ A. L. Boegehold, "Two Graffiti from Ancient Corynth", *Hesperia* 61 (1992): 3, 409–412.

quence above there can be seen a wish $\epsilon \hat{\upsilon}$ $\zeta \hat{\eta} \theta \iota$. In texts of this kind we can talk but about the repetition of a set of standard characters for encoding, but we have in our disposal a number of school exercises connected with the accuracy of decoding.

The most indicative examples showing that already in the VII century BC reading was taught (that is, a special text decoding training was practiced) are presented in students' writing-books – not Greek ones, which didn't reach us, but Etruscan ones. Keeping in mind the fact that the Etruscan alphabet continues Greek traditions, we can use Etruscan material with reservations. This is an exercise done by an Etruscan student, to judge by samples cut out for him on a marble plate that goes back to the second quarter of the VII century BC:12

ci ca cu ce vi va vu ve zi za zu ze hi ha hu he ϑ i ϑ a ϑ u ϑ e mi ma mu me ni na nu ne pi pa pu pe ri ra ru re si sa su se xi xa xu xe qi qa qu qe ti ta tu te

It is clear that the student was trained to recognize the syllable represented in a text, and the onset consonants of open syllables are given in alphabetical order, while the vowel peaks were given in *i-a-u-e* order. At the same time the text itself, written from right to left, contained no special interval signs. It is evident that the process of understanding written texts was the subject of special training: upon learning the alphabet and becoming able to read a minimal text segment, the student then passed on to joining the segments into syllables, and syllables into words.¹³ But for all that, spell-

¹² See: Maristella Pandolfini, A. L. Prosdocimi, *Alfabetari e insegnamento della scrittura in Etruria e nell'Italia antica* (Firenze 1990) 30. A survey of tablets currently known is presented by Elisabeth Lalou, *Les tablettes à écrire de l'Antiquité à l'Époque Moderne*, Bibliologia 12 (Turnhout 1992). In recent years, important discoveries have been made: the oldest wax tablet which dates from the XIV–XIII century BC (G. F. Bass, "A Bronze-Age Writing-Diptych from the Sea off Lycia", *Kadmos* 29 [1990] 170–171) and the so-called Novgorod Psalter found in Novgorod in 2000, see: А. А. Зализняк, В. Л. Янин, "Новгородская псалтырь начала XI века — древнейшая книга Руси" (А. А. Zaliznyak, V. L. Yanin. "The Novgorod Psalter of the beginning of the XI century — the oldest Russian book"), *Вестник Российской Академии наук* 71 (2001): 3, 202–209.

¹³ Paola Degni, *Usi delle tavolette lignee e cerate nel mondo greco e romano* (Sicania – Messina 1998). There are significantly more works on the problems of teaching to write in Classical epoch than those on the problems of reading. Among the most significant researches on the problems of teaching to write is: E. G. Turner, "Athenians learn to write: Plato *Protagoras* 326 d", *BICS* 12 (1965) 67–69; J. V. Muir, "A note on ancient methods of learning to write", *ClQ*, NS 34 (1984) 236–239; L. Rebillard, "Exékias apprend à écrire: Diffusion de l'écriture chez les artisans du Céramique au VI° s. av. J.-C.", in: Cl. Baurain et al. (eds.), *Phoinikeia*

ing was not always helpful in determining the length of a vowel or a syllable, which was crucial for mastering metrical texts. It is known that education in Ancient Greece was based mainly on the texts of Homer's poems, ¹⁴ and later those of the Attic tragedies. These texts were likely to have been decoded by the students with slightly more effort than simple messages. We have in our disposal a small papyrus booklet containing the requirements presented to a student when dividing a text into syllables. Below is a part of the material that demonstrates how such an education process was conducted.¹⁵

In the beginning there is a set of closed syllables of the same type, given in the alphabetic order.

Then a set of monosyllabic words follows:

```
27
         θήρ
28
         πῦρ
29
         πύξ
30
         λάξ
31
         χήν
                  ΰς
32
         σάρξ
                  κήρ
33
         αἴξ
                  θίν
34
         λύγξ
                  κλάγξ
35
         στράγξ
                  ρίν
36
                  πούς
         κνάξ
37
         φλοῦς
                  χείρ
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grammata. Lire et écrire en Méditerranée (Namur 1991) 549–564; Н. Н. Казанский, "Между письменным и устным текстом: древнегреческое 'наивное' письмо" (N. N. Kazansky, "Between written and oral text: ancient Greek 'naïve' writing"), in: Исследования по языкознанию: К 70-летию А. В. Бондарко (СПб. 2001) 246–256.

 $^{^{14}}$ M. Hamdi Ibrahim, "The Study of Homer in Greco-Roman Education", $A\Theta HNA$ 76 (1976–77) 187–195. The author enumerates many educational texts that have reached us, more than a quarter of which show studies of Homer.

¹⁵ See: O. Guéraud, P. Jouguet, *Un livre d'écolier du IIIe siècle avant J.-C.* (Le Caire 1938), cf. summary of previously known materials: E. Ziebart, *Aus der antiken Schule* (Bonn 1913).

Then there are disyllabic words that must be correctly divided into syllables:

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67
     'Ονόματα δισ[ύ]λλαβα.
                                  75
                                       Νεῖ: λος:
68
     Κάσ τω[ρ Φ]οῖ: βος
                                  76
                                       Θό: ας
69
    Θράσ: ων Λέ: ων
                                  77
                                       Γου: νεύς
70
    Έκ: τωρ [Δ]εί: νων:
                                  78
                                       "Α: κμων:
                                  79 Zη̂: θος
. . . . . . . . .
71
                                  80
                                       Αἴ: ας:
    ]ως:
72
    "Αρ: κτος:
                                  81
                                       Τεῦ: κρος
                                  82
                                       Θή: ρων:
73
    Νη: ρεύς
74
    Νει: λεύς:
                                  83
                                       'Ορ: φεύς:
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Then the number of syllables increases from three to five:

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93
                                                    104
                              A: ..[
                                                          ]α: . [
                        94
                              Με: νε[
                                                    105
                                                          'A: να:] ξί: βου: λ[ος]
                        95
                              'Αμ: φι: μά[: χος
                                                    106
                                                          'Α: ρισ:] τό: νι: κος:
84 . [
                              'Ασ: κά: λα: φ[ος
                                                          'Αν:] α: ξα: γό: ρας:
85
   T. [
                        96
                                                    107
    'Ο: δυσ: σεύς:
                        97
                              Έ: λε: φή: νωρ:
                                                          [ 'A:] πολ: λο: φά: νης:
                                                    108
                              'Αν τί μα χος
                                                          'Α: γα: θό: δω: ρος:
    Φω: κύ: λος:
                        98
                                                    109
   'Αλ κί νους
                        99
                              Καλ λί μα χος
                                                    110
                                                          Πι: τυ: ο: κάμ: πτης
89 Πε λί ας
                        100
                              Πο λυ νεί κης
                                                   111
                                                          'Αρ: κε: σί: λα: ος:
    Ί: ά: σων
                        101
                              Έ: τε ο: κλῆς
                                                   112
                                                          'Ορ: γα: νο: ποι: ός:
                              Ίπ: πο: μέ: δων
91
   Τή: λε: φος:
                        102
                                                   113
                                                          Άρ: μα: το πη: γός:
                        103 'Αν: τί: λο [:] χος:
92 'Α: χιλλεύς
                                                   114
                                                          Λε: ον: το: μέ: νης:
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In the end of the booklet there is Euripides' text divided into syllables:

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Phoen. 529
        [\alpha\lambda\lambda': \eta\mu: \pi\epsilon]\iota[:]\rho[i:\alpha]
        [ἔ: χει: τι: ] λέ: ξαι:
                                                               530
        [\tau \hat{\omega} v:] \ v \hat{\epsilon}: \omega v: \sigma o: \phi \hat{\omega}[: \tau \epsilon: \rho o v]
        [Τί:] τῆς: κα: κίσ: τη[ς]
                                                               531
        δαι: μό: νων: ἐ: φί: ε: σαι
120
        φι: λο: τι: μί: ας παῖ: μὴ: σύ: γε:
                                                               532
        ἄ: δι: κος: ἡ θε: ός
        πολ: λούς: δ' ἐ σ οἴ: κους: καὶ
                                                               533
        πό: λεις: εὐ: δαί: μο: νας:
        εί: σῆλ: θε: καί: εἰσ: ῆλ: θε:
                                                               534
        έ: π' ὀ λέ: θρφ: τῶγ: χρω: μέ: νων:
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The idea was to make reading automatic, and (as the examples given convince us) both the word and the syllable continued to play significant roles in learning to read written texts.

This material shows that during the whole of Greek history the principle of text recognition remains the same: the unit subject to recognition is a word that is constituted by syllables.

In syllabic Linear writing the recognition principle is based on reconstructing the unmarked part of the syllable (the character -ta can be read

as /-tas/, /-tam/ etc.) or on joining several characters together: a-ke-ti-ri-ja /asketria/. In this case forming syllables with several syllabic characters (-ti-ri- = /-tri-/) approximates forming syllables when reading an alphabetic text, but (independently from the type of writing) the understanding of the text requires from the reader a correct recognition of each separate syllable, and the syllables are then put together to form a word-sign. Syllabic writing marks the word as a unity, whereas alphabetic inscriptions without gaps required a lot of effort to read them until signs for gaps and punctuation were introduced. Neither kind of writing marks the intonation, which the reader must guess judging by the word order.

Thus, reading as decoding turns out to be a process that depends little on the type of writing: recognizing syllables and defining words form the basis of reading both in the syllabic and the alphabetic periods of Greek culture.

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В истории древнегреческой культуры на рубеже II и I тысячелетий до н. э. происходит переход от слоговой письменности к алфавитной. Для крито-микенского времени в далеко отстоящих друг от друга центрах тексты сходны по содержанию и оформлению. Места находок (Пилос, Кносс, Фивы, Микены, Тиринф, Хания) показывают, что единство писцовых навыков должно объясняться не просто общим происхождением локальных вариантов линейной письменности, но и специальными усилиями по поддержанию писцовых традиций.

Одной из самых характерных особенностей фиксации текста с помощью слоговой микенской письменности является разделение текста на слова, хотя случаи, когда текст пишется слитно, разумеется, встречаются.

Микенская цивилизация прекращает свое существование около 1200 г. до н. э. После периода Темных веков мы обнаруживаем в Греции использование алфавитной системы. Слоговая письменность не выходит полностью из употребления, а вытесняется на периферию и сохраняется только на о. Кипр. Алфавитные тексты передают речевой континуум, деля его на сегментные единицы, в которых читатель должен угадать границу слова и декодировать смысл сообщения, — принцип, диаметрально противоположный микенскому подходу к анализу речевого континуума. Перед нами совершенно иной способ осмысления языковых единиц, связанный с переходом от морфологического к фонетическому основанию при фиксации текста.

При кодировании знаками греческого алфавита сегментацию речевого потока и запись производить было намного легче, но зато восприятие текста требовало бо́льших усилий. Поэтому желательно разделять человека пишущего и воспринимающего. Такого рода различия для микенского времени мы можем лишь постулировать. Для греческой архаики таких материалов также очень немного. В статье перечисляются примеры VII в. до н. э. из Этрурии (ci ca cu ce etc, см.: Maristella Pandolfini, A. L. Prosdocimi [прим. 12]), показывающие, что ученика тренировали на узнавание отображенного в тексте слога. Та же методика обучения чтению представлена в папирусе III в. до н. э. (см. прим. 15).

В слоговом линейном письме принцип узнавания строится на домысливании неотображенной части слога (знак -ta читается как /-tas/, /-tam/ etc.) или же на объединении нескольких знаков: a-ke-ti-ri-ja /asketria/. В этом последнем случае составление слога из нескольких слоговых знаков (-ti-ri- = /-tri-/) приближается к составлению слога при чтении алфавитного текста, однако требуется правильное узнавание слогов, которые затем объединяются в слово-знак. Слоговая письменность отмечает слово как единство, сплошное написание в алфавитной записи требовало от читающего значительных усилий для распознавания, пока не были введены знаки пробела и пунктуации. Тем самым чтение как декодирование оказывается процессом, мало зависящим от типа письменности: узнавание слога и определение слова составляют основу чтения как в микенское время, так и в позднейшей греческой культуре.