

ORIGINS OF THE CANAANITE ALPHABET AND WEST SEMITIC CONSONANTS' INVENTORY

A. V. Nemirovskaya

St. Petersburg State University, St. Petersburg
a.nemirovskaya@spbu.ru

Abstract. It has been not infrequently mentioned by Semitists that a few graphemes of the West Semitic consonantal alphabet had been multifunctional. This is witnessed, in particular, by transcriptions of Biblical names in Septuagint, Demotic transcriptions of Aramaic as well as by the Arabic alphabet, Aramaic by its origin, which twenty two graphemes were ultimately developed into twenty eight ones through inventing additional diacritics. The oldest firmly deciphered and convincingly interpreted variety of the West Semitic consonantal script was employed in Ugarit as early as the 13th century BC. Being contemporaneous with the epoch of the invention of the West Semitic consonantal script the most significant evidence is provided with Semitic words occasionally transcribed in Egyptian papyri from the New Kingdom. Examples collected (J. Hoch) demonstrate that one and the same Semitic consonant could be recorded variously with different Egyptian consonants used; even more crucial is that various Semitic consonants could be recorded with the same Egyptian one.

E. de Rougé was the first one to state that the immediate prototypes of Semitic letters were to be sought among the Hieratic characters. W. Helck and K.-Th. Zauzich determined that the West Semitic alphabet comprised only those characters which had been used in “Egyptian syllabic writing”. Summarizing philological and historical evidence does allow us to conclude that the Canaanite consonantal alphabet developed as a local adaptation of the Egyptian scribal practice of recording non-Egyptian words. This local adaptation must have occurred under Ramesside rule, when Egyptian or Egyptian-trained scribes resided at Canaanite sites.

It seems reasonable to conclude that West Semitic consonantal graphemes were not intended for reflecting Semitic phonetics adequately from the beginning of their existence. Their usage was originally conditioned by the Egyptian scribal practice of rendering Semitic words that was current during the New Kingdom.

Keywords: West Semitic, Canaanite, Egyptian, Ugaritic, consonantal, script, alphabet, multifunctional grapheme, scribal practice.

Происхождение ханаанского алфавита и западносемитский консонантный инвентарь

А. В. Немировская

Санкт-Петербургский государственный университет, Санкт-Петербург
a.nemirovskaya@spbu.ru

Аннотация. Такие особенности ханаанского инвентаря графем, как игнорирование вокализма и полифункциональность ряда графем (гортанные, сибиланты и интердентальные) объясняются тем, что ханаанский консонантный инвентарь изначально, по всей видимости, не предназначался для адекватной передачи звукового строя семитских языков, сформировавшихся в XIII — нач. XII вв. до н.э. на основе египетского делового курсива в результате местной (левантийской) адаптации египетской писцовой практики записи неегипетской лексики.

Ключевые слова: западносемитский, ханаанский, египетский, угаритский, консонантный, письмо, алфавит, полифункциональная графема, писцовая практика.

1. ‘Multifunctionality’ of consonantal graphemes versus ‘historical merger’ of West Semitic consonants

Though the inventory of West Semitic consonants is not the subject of much debate, it is still treated with some inconsistency. The inventory of such languages as Hebrew, Phoenician or Aramaic, for instance, is normally represented as reduced due to the supposed historical merger of some phonemes [Militarev, Kogan 2000: LXVIII–LXIX] and thereby observed in terms of linguistics. At the same time, the problem has been taken absolutely different and discussed in terms of merely graphemes’ usage. A good illustration of this disagreement is *The Semitic languages: An International Handbook*. It contains the general chart ‘Regular correspondences of the Proto-Semitic consonants’ preceded by the

statement that Proto-Semitic “consonantal inventory is very stable and only two of its segments — sibilants and gutturals — have been subject to substantial changes in individual Semitic languages” [Kogan 2011: 55]. The latter obviously involve Hebrew and Aramaic which is represented in the paragraph by Syriac only. According to the chart [ibid., Tab. 6.2] and the attached lexical illustrations, the “substantial changes” imply **merger of sibilants and gutturals** [ibid.: 55–59]. There is, however, some disagreement between this approach and the following consideration:

In the Phoenician alphabet, **ħ* and **γ* are rendered by the same graphemes as **ħ* and **ʕ* ... If the alphabet was created to render adequately the Phoenician consonantal inventory ... **ħ* and **γ* must have shifted to **ħ* and **ʕ* in that language (and in its forerunner in the ‘short’ Ugaritic alphabet ...). But this need not be true for other NWS idioms using the Phoenician alphabet: **in these languages π and υ may have been polyphonic and render both uvulars and pharyngeals, still unmerged. It seems that this was indeed the case in most of early Aramaic and Canaanite** (*bold mine* — A. N.) [ibid.: 114–115].

In any case, it has been not infrequently mentioned by Semitists that a few graphemes of the West Semitic consonantal alphabet had a double or even a triple function, namely those used for recording gutturals, sibilants and interdental [Hoch 1994: 413–418; Rendsburg 1996: 509–510; Steiner 2005; Blau 2010: 73–76; Fales 2011: 566; Kogan 2011: 92, 114–115; Lehmann 2012: 34–37], as shown by the quotations below:

When borrowed from the Phoenicians, the graphemes <ψ> in Hebrew served ‘double duty’ ... The introduction of diacritical dots (<ψ̣> vs. <ψ̣̣>) was due to the Masoretes” [Edzard 2011: 482–483]¹.

Hebrew does not have separate signs for those phonemes in its twenty-two-letter alphabet, but, ever since the nineteenth century, many scholars have argued that the letters π and υ were polyphonic, each representing a uvular fricative as well as a pharyngeal one. The argument has been based on transcriptions of etymologically

¹ This holds for the Tiberian tradition, while the Babylonian tradition, its earlier and much more economical counterpart, lacks the diacritic dots for ψ as well as any special means to mark double consonants (*geminata*).

transparent names in the Septuagint (LXX), correlated with cognates in three other Semitic languages — Arabic at first, later ESA and Ugaritic. The claim is that the LXX uses the Greek velar stops (normally χ and γ , rarely κ) to transcribe the Semitic uvular fricatives ($*h$ and $*\dot{g}$) but zero, a , or ε for the Semitic pharyngeal fricatives (h and ʕ) [Steiner 2005: 231–232].

Differentiating Aramaic gutturals (uvulars from pharyngeals) in the first millennium BC can be shown by Demotic transcriptions of Aramaic from Ptolemaic Egypt due to papyrus Amherst 63 which dates from the early 3rd century BC. The Aramaic texts it contains are, however, not later than the 7th century BC [van der Toorn 2018: 38]. R. Steiner, who is a pioneer in the decipherment and investigation of the Amherst Papyrus, pointed out that

Until two or three decades ago, most Semitists assumed that uvular $*h$ was lost already in Old Aramaic, as the result of a merger with pharyngeal $*h$. Today, thanks to papyrus Amherst 63 (the Aramaic text in Demotic script), there is a new conventional wisdom” [Steiner 2011: 195].

In his earlier article Steiner described the matter in the following way:

Unlike the Greek alphabet and the cuneiform syllabary, upon which previous attempts to demonstrate the polyphony of π and ν in the Hellenistic period were based, the Egyptian script is reasonably well suited to the task of differentiating uvulars from pharyngeals. This is at least as true of the Demotic script in Amherst 63 as it is of the New Kingdom scripts used for Canaanite in the second millennium B.C.E. They all have contrasting signs for ʕ , h , and \dot{h} , not to mention h . In fact, in addition to \dot{h} , Demotic has a phonetically similar fricative transliterated \dot{h} . The absence of a sign for \dot{g} is a drawback, but not a serious one. In Amherst 63, \dot{h} and \dot{h} are used to render $*\dot{g}$ (as well as $*h$) ... In Amherst 63, Aramaic $*\dot{g}$ and $*h$ are consistently distinguished from $*\text{ʕ}$ and $*h$, respectively, in dozens of examples [Steiner 2005: 236].

Furthermore, the Arabic alphabet, which is Aramaic in origin and based on the same inventory of consonant letters, also bears witness to the multifunctionality of some consonantal graphemes. Denoting 28 Arabic consonants by means of not more than 22 graphemes was facilitated by the vocalization of the Quran and its enhancement by diacritics.

Before this stage the Arabic letters for recording gutturals, sibilants and interdental sibilants evidently had a double consonantal function: ḥ / ḫ (ح/خ); d / ḏ (ד/דז); s / š (ס/ש); ṣ / ḏ (ص/ض); ṭ / ḏ (ط/ظ); ʕ / ġ (ع/غ). It is natural to assume that at the time of Mohammed the situation in Aramaic or, at any rate, in some of its dialects was the same, at least in the case of the gutturals denoted by ḤET (ḥ) and ʕAYN (ʕ), as witnessed by Aramaic loanwords in the Quran (Table 1).

Table 1. Some Aramaic loanwords with gutturals in the Quran, based on [Jeffery 2007 [1938]: 116–117, 279–280, 202–203, 208–209]

	Aramaic	Arabic		Aramaic	Arabic
'crime, sin'	חוב <i>ḥwb</i>	حوب <i>ḥūb^{um}</i>	'the world, the universe'	עלם (עלמין pl) <i>ʕlm</i> (pl <i>ʕlmyn</i>)	عالمين <i>ʕālamīn^a</i> (only in the pl)
'a copy, exemplar'	נסחת <i>nsḥt²</i>	نسخة <i>nushat^{um}</i>	'idolatry'	טעות <i>tʕwt³</i>	طاغوت <i>tāġūt^{um}</i>

But of special importance for our subject is just the earliest available evidence that is provided by the Egyptian transcriptions (or, maybe more accurately, transliterations) of Semitic/Canaanite words attested in Egyptian sources primarily of the second half of the second millennium BC [Albright 1934; Helck 1989; Hoch 1994; Steiner 2005: 230, 236]. In fact, this was contemporaneous with the beginnings of the Canaanite consonantal alphabet. In his monograph James Hoch [1994] presents about six hundred words of Semitic origin attested in Egyptian transmission. A significant outcome of the research is that

the most important factor that emerges from the Egyptian evidence is the size of the phonemic inventory, which numbers as high as 27–29 phonemes, even in the more recent material. **This is far more than usually believed to be present in the contemporary Canaanite dialects** (*bold mine* — A. N.). Although it cannot be demonstrated that any single dialect contained the full inventory, it would seem likely that at least some did (or nearly so) since the

² < Akkadian *nishu(m)* 'extract, copy' [Kaufman 1974: 78].

³ The use of Aramaic *tʕwt* 'error' as a technical theological term 'idol / pagan god', in contrast to the Lord, was specific to the Targums [Jeffery 2007 [1938]: 203; Sokoloff 1990: 227; Cook 2008: 107; Cook 2015: 96].

Egyptian evidence suggests that dialects with mergers were in the minority as source languages. In most cases we have hieroglyphic / hieratic evidence for the phonemic oppositions down to the end of the 11th century B.C.E. [Hoch 1994: 413–414].

Within this relatively small list one can nevertheless perceive phonetic variation in conveying Semitic consonants, which in all likelihood can be explained by the lack of an overarching written norm. For this reason, when selecting particular symbols to denote a word-form from a foreign language, an Egyptian scribe must have relied on his own experience of comprehending and recording foreign words. An illustration of all the attested variants of the Egyptian denotation of Semitic sibilants, interdental and gutturals is presented in the table below (Table 2). It leads to two conclusions: 1) one Semitic consonant could be occasionally recorded by different Egyptian consonants; 2) Egyptian scribes could record different Semitic consonants by one and the same consonant. Neither of these two results is surprising since any foreign transmission cannot and usually does not strive to convey the source language phonetics precisely, especially in writing⁴.

Table 2. Egyptian transmission of the Semitic (Canaanite) consonants, based on [Hoch 1994: 435–437]

Egyptian transcription	Semitic phonemes (interdentals and sibilants)	Egyptian transcription	Semitic phonemes (velars and gutturals)
Ḍ	/s/, /z/, /d/, /d̪/	Ḥ	/h/, /ħ/
S	/t̪/, /s/, /š/	Ḥ	/ħ/
Š	/š/, /t̪/	ʿ	/ʕ/, /ğ/
T	/s/, /d̪/ ⁵	Q	/q/, /ğ/, /g/
		G	/ğ/, /g/

2. Egyptian origins of the consonantal script in the Late Bronze Age Levant

As for the origins of the Canaanite consonantal alphabet, most plausible from a historical viewpoint as described below seems to be the

⁴ Cf., e.g., Late Babylonian renderings of Aramaic names, where “Cuneiform *h* stands for Aramaic *h*, *h* and *ʾ*” [Streck 2017: 182].

⁵ But also /z/, see [Shisha-Halevy 1978: 149, 152].

so-called 'hieratic hypothesis' [Weidmüller 1960; Hodge 1969; Helck 1972; Zauzich 2015]. It is alternative to its much more popular 'proto-sinaitic/acrophonic' counterpart [Gardiner 1916; Sethe 1918; Hamilton 2006; Krebernik 2007; Morenz 2011]⁶ whose modern-day approach, which still comes across crucial stumbling blocks concerning real historical context, is outlined by Benjamin Sass as follows:

The alphabet was created by speakers of a West Semitic tongue either in the Sinai under Egyptian domination or in Egypt itself, mostly employing hieroglyphic Egyptian models for the pictographic letters ... It was Albright ... who first labelled the inscriptions "Proto-Sinaitic". Frustratingly, **the dating evidence is contradictory** (*bold mine — A . N.*); it seems to point to two alternative timeframes, very wide apart, for the birth of the alphabet: either ca. 1800 BCE, an idea revived by Goldwasser ... or ca. 1300 BCE ...

The next phase in the history of the alphabet is **no less enigmatic** (*bold mine — A . N.*). Under still obscure circumstances, alphabetic writing seems to have vanished from Egypt, resurfacing in the Egyptian-controlled Shephelah ... If one is looking for stratified inscriptions only, the alphabet is found first in Late Bronze contexts of the 13th and 12th centuries at Lachish and neighbouring sites ... In this phase the alphabet lost many of its pictographic aspects while still keeping others; it also kept multidirectional writing. Frank Moore Cross ... labelled this stage "Proto-Canaanite". One may as well employ the term "linear alphabet" ... in order to distinguish this script from its contemporary adoption in cuneiform guise in Ugarit and the rest of the northern and central Levant.

And to yet **another enigma** (*bold mine — A . N.*): Judging by the stratified inscriptions — and they are still very few — the linear alphabet seems to have remained confined to the Shephelah for the next three or four hundred years — Late Bronze II–III and Iron I. Meanwhile, the region has become Philistia. Only in early Iron IIA did the alphabet begin to spread to Phoenicia and to other parts of the West Semitic area [Sass 2017b: 89–90].

⁶ The book by Zauzich [2015] is the most comprehensive study to date devoted to the comparison of the two hypotheses and focused on the hieratic one ('Die hieratische Theorie'); it also includes comprehensive bibliography on the subject and some other topics related to it.

According to the hieratic hypothesis, by contrast, the prototypes for the letters were cursive (hieratic) characters of the so-called ‘Egyptian group writing’⁷, by using which the Egyptians adjusted themselves to writing down foreign-language words, including those of Canaanite origin. In the nineteenth century, Emmanuel de Rougé [1874] was the first one to state that the West Semitic consonantal alphabet had originated from the Egyptian cursive script, with

his clear perception of the fact, itself antecedently probable, that the immediate prototypes of the Semitic letters must be sought, not, as had hitherto been vainly attempted, among the hieroglyphic pictures of the Egyptian monuments, but among the cursive characters which the Egyptians had developed out of their hieroglyphs, and which were employed for literary and secular purposes, the hieroglyphic writing being reserved for monumental and sacred uses [Taylor 1883: 90].

A century later, Wolfgang Helck [1972] and Karl-Theodor Zauzich [2002; 2003] determined that the West Semitic alphabet had comprised only those Egyptian cursive characters which had been used in the group writing. In addition, it has been proposed that the traditional names of the West Semitic graphemes stem from some technical (mnemonic) designations of their Egyptian prototypes, either single glyphs or groups of characters [Weidmüller 1960; Zauzich 2015; Nemirovskaya, Soushchevsky 2016]⁸.

The innovative Egyptian scribal practice was widely introduced as a consequence of Egyptian conquests in Western Asia at the time of the 18th dynasty [Albright 1934: 12–14; Helck 1971: 505 ff., 580;

⁷ It is often referred to as ‘syllabic writing / orthography’, but “Group writing does not imply an indication of specific vowels (which is why the term ‘syllabic writing’, that is sometimes used synonymously, is erroneous)” [Wimmer, Maier 2007: 42 n.10].

⁸ [Nemirovskaya, Soushchevsky 2016: 768] ought to be corrected: “As for the expression *i.n=f* ‘thus he said’, which presumably constituted the prototype of the name *ALEPH* and whose recording normally began with this group, it was in general a typical literary cliché in Neo-Egyptian narratives with the help of which Egyptian scribes (authors) of the New Kingdom used to mark the end of one’s direct speech in their literary compositions [Korostovtsev 1973: 268]. The fact that this literary cliché was particularly typical of NeoEgyptian literature allows us to treat the New Kingdom as the *terminus ante* (sic!) *quem* for the developing of the long-lived alphabetic scribal curriculum that has come down to us” — to put it more accurately, *terminus post quem*.

Artzi 1990: 154]. Egyptian military and administrative control over the Levant, particularly in Southern Canaan, was exercised for about four hundred years and achieved its maximum in the Ramesside period in the reign of the 19th and the beginning of the 20th dynasties in Egypt (the 13th — early 12th centuries BC) [Na'aman 1981: 185; Weinstein 1981; Higginbotham 2000: 34–40; Redford 2003: 255; Hoffmeier 2004: 141; Gadot 2010: 52; Gilmour, Kitchen 2012; Koch 2014; Koch 2018]. As it was supposed by William Albright, the widespread occurrence of syllabic writings in Egyptian papyrus documents might have been affected by the syllabic principle of the Mesopotamian cuneiform which was generally practised in this period in Levantine city-states and elsewhere in the Near East:

Since the influence of cuneiform in Egypt probably reached its maximum in the reign of Ramesses II, owing to the extensive correspondence with Asiatic princes required by his wars and diplomatic relations with the Hittites, a slight cuneiform influence on the syllabic orthography seems not unlikely.

There can thus be no doubt that the Egyptian scribes of the fourteenth and thirteenth centuries actually learned cuneiform in order to write letters abroad [Albright 1934: 13, with n. 50].

It was the hieratic script that was directly employed for writing on papyrus in order to compose administrative documents, letters and pieces of literature versus formal hieroglyphs carved in stone. Thus the official documents were written in the same way in the Levant as in Egypt itself [Goldwasser 1984; Goldwasser 1991; Goldwasser, Wimmer 1999; Sweeney 2005; Wimmer, Lehmann 2014]. See the quotations below:

Two types of Egyptian inscriptions have been recovered in Canaan: hieratic inscriptions written in cursive script with ink on Egyptian-style bowls; and hieroglyphic inscriptions carved into stone. Hieratic inscriptions are the more numerous of the two and are apparently related to the economic administration of the region. All these inscriptions, dating broadly to the Ramesside period, have been recovered from sites in Canaan with Egyptian ties ... Although the Lachish ostraca were not found in situ, one of the sherds contains the word for “scribe.” Orly Goldwasser ... suggests that this may indicate that Egyptian or Egyptian-trained scribes resided at the site [Killebrew 2005: 67].

By the end of the Nineteenth Dynasty and during the Twentieth Dynasty Egyptian scribes resided at Lachish, Tell Sera^ç, Tell Haror, Qubur el-Walaydah, Tell el Far^{ah} South and Ashkelon. They wrote good, contemporary, administrative hieratic that exhibited no specific provincial affinities. Naturally, what has come down to us is not papyri but writing on pottery sherds (ostraca) and complete bowls. On the one hand, the language, topics and measurements mentioned in the texts make part of the typical Egyptian repertoire; on the other hand, however, the yield is a specific Canaanite-Egyptian production. The complete Canaanite bowls that carry hieratic inscriptions (to be carefully differentiated from the ostraca) seem to be related to a religious-administrative local belief-system ... Most likely, Egyptian scribes who resided in Canaan and had to deal with such issues were bilingual and possibly even of Canaanite background [Goldwasser 2016: 151]⁹.

It is not surprising, therefore, that this was this historical epoch when the oldest real (i.e. firmly deciphered and convincingly interpreted¹⁰) project of Levantine consonantal phonography was launched in the city-state of Ugarit. Although the cuneiform shape and clay tablets may seem to have prevented anyone from even thinking of anything Egyptian, Carleton Hodge [1969: 278] dared to assume that since the scribal practice of the group writing “was the normal representation of foreign words in Egyptian, it would be logical to look to it as a possible ‘model’ for Ugaritic¹¹. It should also be remembered that what the Egyptian wrote was hieratic, not hieroglyphic”.

⁹ Remarkably, at least one sherd bearing a non-Egyptian, presumably Canaanite, text written in hieratic of the 20th dynasty has been identified within the corpus of non-literary Late Egyptian ostraca from Egypt [Shisha-Halevy 1978].

¹⁰ This still cannot be said about the so-called “Proto-Sinaitic alphabetic inscriptions” from Serabit el-Khadem (Sinai) and Wadi el-Hol (northwest of Luxor) [Haring 2015: 21, 24], though the following consideration probably aims to support some cautious optimism, despite everything: “Obviously much more research is needed in order to decipher the alphabetic inscriptions at Serabit el-Khadim and Wadi el-Hol, and to give them their proper place in the history of alphabetic writing. Solving the chronological controversies seems to be especially important so that we know what developments took place in the second millennium BCE, and when precisely in that millennium” [ibid.: 29]; on such chronological controversies see above, the quotation from [Sass 2017b].

¹¹ This view appears to have been shared by Helck though he did not mention Hodge’s article directly [Helck 1972; Dietrich, Loretz 1988: 42].

At the present time, it is generally believed that the Ugaritic consonantal script was invented in the 13th century BC [Pardee 2007: 186189; van Soldt 2010: 205]¹² when Ugarit enjoyed its last high point in the relationship with Egypt, which visibly affected the scribal practice in Ugarit during the Ramesside period [Mynářová 2010: 365–369; cf. Gilmour, Kitchen 2012: 11]. As regards the two patterns of the cuneiform consonantal script attested at Ugarit, a longer one with its 30 letters (for 27 consonants) and left-to-right direction of writing and a shorter one with its 22 letters and right-to-left direction (the so-called “long” and “short” alphabets, respectively), Manfred Dietrich and Oswald Loretz came to the shrewd conclusion¹³ (still unconventional, however) that the shorter alphabet appears to have been the predecessor of its longer counterpart:

To all intents the Ugaritic alphabet looks like, so to speak, the Phoenician alphabet with 22 consonants, extended by the insertion of 5 additional letters plus 3 at the end. Consequently, the Phoenician alphabet formed the forerunner of the longer Ugaritic alphabet ... The establishment of a longer alphabet comprising 30 letters could, however, also be understood as the original and earlier one, from which a shorter alphabet developed through the loss of 8 letters, i.e. the later Phoenician alphabet — advocated by Albright and his students up to the present as the ‘reduction theory’¹⁴. However, that would contradict what happens when an alphabet is adopted and where necessary extended by adding further letters, according to the principle ‘an alphabet comes after a language’. This became clear when a group of tablets was published, also from Ugarit and contemporary with the others, which displayed the following ‘Phoenician’ characteristics: a script going from right to left and a short 22-letter alphabet. This proved that in Ugarit two alphabets coexisted: a shorter alphabet with the characteristics of later Phoenician,

¹² Previously the most widespread opinion was that the Ugaritic alphabetic cuneiform had been invented in the 14th century [Pardee 2007: 186–188].

¹³ First presented in [Dietrich, Loretz 1988: 297–299].

¹⁴ Cf., e.g., the following view: “At the present time one can propose as a working hypotheses that the West-Semitic linear consonantal script, primitively consisting of 27 consonants, was sometimes reduced to 22 letters, in certain ‘Proto-Phoenician’ cities of the Levant, that is, on the coast. These two types of linear alphabetic script, first the 27-letter script, then the 22-letter one, went through an adaptation to cuneiform” [Lemaire 2008: 48–49].

and a longer one, expressly for writing down Ugaritic [Dietrich, Loretz 1999: 82–83].

In addition to cuneiform alphabetic texts from Ugarit

the earliest buildup of well-dated alphabetic inscriptions in Palestine belongs to the 13th century. The dozen or so preserved examples from the end of the Late Bronze Age, mostly on pottery, are evidently but a fraction of the bulk of the texts, written on perishable papyrus and now lost [Sass 2005: 153–154].

Referring to observations of van der Kooij, Lundin, Dietrich and Loretz, Reinhard Lehmann reasonably concludes that writing on an uneven hard surface should have been secondary to that carried out on a flat smooth one:

What we know of the *original* West Semitic texts, i.e., inscriptions, from the middle or late second and even of the first millennium, are sherds, graffiti, and fragments incised in stone, but naturally nothing that is written flat. Flat writing however, i.e., with ink on papyrus or another smoothed or planar surface, must have gone on simultaneously with and even earlier than clumsy scratches on sherds. This is also most likely considering the conjectural genesis of Ugaritic cuneiform ... It is also evident that scratched or carved ‘cursive’ linear letter forms in argil always are predated by plain cursive types of professional flat writing ... Unfortunately, all this has gone forever because of the perishable nature of papyrus in the climate of Palestine, and, therefore, conclusions are speculative [Lehmann 2012: 31].

Later on, the similar scheme with cursive writing preceding its monumental / lapidary counterpart is also witnessed by epigraphic material of the first millennium BC:

The script of the Byblos texts, too, imitates the cursive in part ... But the West Semitic alphabet in its non-monumental manifestation is earlier than that: stratigraphically dated inscriptions on pottery indicate that the alphabet ... moved from south to north in the second half of the tenth century (early Iron IIA) from its core region, the Shephelah/Philistia ... Then in late Iron IIA, roughly the first half of the ninth century or slightly before, the alphabet spread to the entire Levant and the Jazira — presumably for use

in documents written in ink as indicated by the streamlined, cursive shapes the letters were acquiring then ... When a few decades later, ca 830, the alphabet in the West Semitic kingdoms finally gained enough ground, the first monumental alphabetic inscriptions were set up [Sass 2017a: 110].

Finally, witty observations were made by Anson Rainey in his on-line critique of “How the Alphabet Was Born from Hieroglyphs” by Orly Goldwasser¹⁵:

the alphabet was invented by highly sophisticated Northwest Semites who knew not only hieroglyphics but probably also hieratic, the cursive script generally used by Egyptians at that time ... It should be obvious that the alphabet was designed to be written on papyrus ... The miners who inscribed their thoughts on the walls of the turquoise mines or on the cliff above the smelting camp at Bir Nasib, were hardly the inventors of the alphabet [Rainey 2010].

3. Conclusions


It is the foreign origin of the consonantal alphabet that makes it easy to explain its *initial inadequacy* for recording Semitic phonetics it had been adapted to convey, were it the case of Canaanite (Phoenician, Hebrew or Moabite) or other Semitic languages (Aramaic and later Arabic)¹⁶ as well as a non-Semitic language¹⁷. Moreover, it is the

¹⁵ Moreover, a similar view was expressed more than thirty years ago: “Now, the question arises: Did these West Semitic workers or slaves in Sinai invent the first alphabetic writing? For some decades after the discovery, the answer was positive. Scholars believed that these Semites, who were in daily contact with Egyptian writing, improved it and restricted it to uniconsonantal signs, thereby inventing the alphabetic system of writing. In addition, there were scholars who tried to relate this script to the Israelites, who after the Exodus lived for a generation in the Sinai peninsula. Nowadays these romantic views are no longer accepted” [Naveh 1987: 25–26].

¹⁶ Somewhat similar may sound Lehmann’s view that “the Northwest Semitic shortened or ‘short Abgad’ does not reflect a spoken dialect at all, but has emerged as a *scriptio franca* for the Semitic-speaking Levant” [Lehmann 2012: 13].

¹⁷ Epigraphic material from the Philistine cities made with an early form of the consonantal alphabet has also been found [Maier et al. 2008; Shai 2011: 125]; see, e.g., the following observation: “The existence of a specific West Semitic scribal tradition in Philistia appeared only about 25 years ago in West Semitic epigraphy research. Of course,


consonantal character of the early Canaanite alphabet that proves this idea. A specific feature of Semitic is its root-and-pattern morphology based on transfixes, and the patterns always include internal vocalization, which means that vowels play a significant role in Semitic morphology. The consonant alphabet, by contrast, had completely ignored vocalism from the very beginning, which can only be explained by its non-Semitic, namely Egyptian origin. The historical grounds of this have been described above.

As to the linguistic ones, it is well known that “hieroglyphic writing consistently ignored and omitted the vowels” [Gardiner 1957: 26]. This peculiarity of the Egyptian script is likely to have been directly influenced by the Egyptian language itself whose linear morphology appears to have been originally characterized by just a secondary, non-essential role of vowels as opposed to consonants¹⁸. In a similar fashion, when the Egyptians had to write down non-Egyptian lexemes they used to divide them primarily into *consonantal segments*. Thus, for example, the city of Babylon (biblical *Bābāl*) was recorded as  *b-b-r*¹⁹. The Canaanite consonantal script appears to have emerged as a local adaptation of the Egyptian scribal practice of recording non-Egyptian words in the second half of the second millennium BC. This is why from the very beginning, the graphemes of the Canaanite alphabet were *not intended* for any exact denotation of the real consonantal structure of Canaanite lexemes (not to mention their vocalism) but rather reflected the Egyptian scribal practice of denoting the Semitic consonants.

The common misconception that the consonantal script, despite all its shortcomings, did adequately reflect the Semitic consonantism is a mere derivative of the belief that the consonant alphabet ought to have

this scribal tradition developed from the Canaanite tradition and during the 12th–10th centuries BCE. It is practically impossible to distinguish this script from the proto-Phoenician or proto-Hebrew Script. However it is necessary to take into account this political and cultural specificity” [Lemaire 2012: 297].

¹⁸ Grammarians prefer to describe this feature in terms of the writing system peculiarities: “the Egyptian scribes ignored the vowels in writing” [Gardiner 1957: 9]; “hieroglyphic writing usually shows only the consonants of Egyptian words” [Allen 2014: 13].

¹⁹ It seems reasonable to transliterate the spelling just this way, and not as *b-b-ra* [Hoch 1994: 95] taking into account the fact that in the so-called Egyptian syllabic orthography “ steht auch dort, wo wir ein silbenschießendes ‘r’ erwarten” [Helck 1989: 131].

been invented by native speakers of a certain Semitic language²⁰. At the same time, the precise identity of this language usually makes no difference for such speculations. A factor that is even more crucial is that one is accustomed to perceive West Semitic languages through the prism of the consonantal scripts. But in practice, this interpretation implies that ancient scribes should have had *an idea of phonemes* (consonants and vowels). Then they should have separated vowels from consonants for some sophisticated reasons and picked out just consonants for recording, as is presumed by

the following scenario: In a moment of contact, some Canaanites confronted the inventors with the fact that they could write their names in Egyptian, using “little pictures” ... Both Egyptian and Semitic languages are root based. This kind of “consonants only” system serves an important cognitive role ... Perhaps confronted with a foreign name written in mono-consonantal hieroglyphs, the genius inventor(s) may adopted from the Egyptian system only the **option** of writing a word or name using consonants alone [Goldwasser 2015: 134–135].

Such a modern abstract linguistic approach can hardly be relevant to the activities of scribes in the Ancient Near East. In actual fact, a clear logical mistake is that the *final stage* of the process that unintentionally resulted in developing consonantal phonography has been broadly considered to represent its *starting point*. It is clearly not a matter of pure chance that the most long-lived and developed among the Ancient Semitic writing traditions, namely the Akkadian cuneiform, had nothing to do with the principles of consonantal writing. The only exception is the period from the 8th century BC onward (Neo-Assyrian and Neo-/Late Babylonian), when Mesopotamian cuneiform conventions were partly influenced by the Aramaic consonantal writing [Streck 2001; Streck 2005; George 2003: 442]. Finally, it is relevant to mention here an important conclusion reached by Ignace Gelb [1963: 141]:

²⁰ See, e.g., the assertion that “native alphabets (such as Ugaritic and Phoenician) were with all likelihood specifically designed for the consonantal systems of the respective languages” [Kogan 2011: 97]. Considering co-existence of the two Ugaritic alphabets, together with the multifunctionality of Semitic / Canaanite consonantal graphemes not infrequently mentioned elsewhere including the same author [ibid.: 114–115], this “likelihood” is far from being so certain, however.

In investigating various types of writing I have found the following conditions affecting the names of signs: **Either the forms of the signs, their values, and their names are all directly borrowed by one system from another, as in the case of Greek from Semitic or Coptic from Greek** (*bold mine* — A. N.); or the forms of the signs and their values are borrowed, as in the case of Latin from Greek or Armenian from Aramaic, and in subsequent years the names of the signs are freely invented and added; or finally the forms of the signs and their values are first freely invented and then the sign names are added, as in the case of the Slavonic Glagolitsa or the Germanic runes.

The first scenario (typed bold) described by Gelb is, actually, the oldest pattern of the adoption of a writing system. Moreover, it seems to be the most natural and appropriate one for Ancient Near Eastern scribal practices, if not in general. It is highly probable that just this scribal strategy was implemented in course of Canaanite adaptation of the so-called Egyptian group writing, which must have occurred under Ramesside rule in the reign of the 19th and the beginning of the 20th dynasties, i.e. in the 13th— early 12th centuries BC.

References

- Albright 1934 — W. F. Albright. *The Vocalization of the Egyptian Syllabic Orthography*. New Haven: American Oriental Series 5, 1934.
- Allen 2014 — J. P. Allen. *Middle Egyptian: An Introduction to the Language and Culture of Hieroglyphs*. 3rd ed. Cambridge University Press, 2014.
- Artzi 1990 — P. Artzi. *Studies in the Library of the Amarna Archive*. J. Klein, A. Skaist (eds.). *Bar-Ilan Studies in Assyriology dedicated to P. Artzi*. Bar-Ilan: University Press, 1990. P. 139–156.
- Blau 2010 — J. Blau. *Phonology and Morphology of Biblical Hebrew*. Winona Lake, IN: Eisenbrauns, 2010.
- Cook 2008 — E. M. Cook. *A Glossary of Targum Onkelos according to Alexander Sperber's Edition*. Leiden: Brill, 2008.
- Cook 2015 — E. M. Cook. *Dictionary of Qumran Aramaic*. Winona Lake, IN: Eisenbrauns, 2015.
- de Rougé 1874 — E. de Rougé. *Mémoire sur L'origine Égyptienne de L'alphabet Phénicien* par M. le Vte Emmanuel de Rougé publié par les soins de M. le Vte Jacques de Rougé. Paris: Imprimerie Nationale, 1874.
- Dietrich, Loretz 1988 — M. Dietrich, O. Loretz. *Die Keilalphabet. Die phönizisch-kanaanäischen und altarabischen Alphabete in Ugarit (ALASP 1)*. Münster: Ugarit-Verlag, 1988.

- Dietrich, Loretz 1999 — M. Dietrich, O. Loretz. The Ugaritic Script. W. G. E. Watson, N. Wyatt (eds.). *Handbook of Ugaritic Studies*. Leiden: Brill, 1999. P. 81–89.
- Edzard 2011 — L. Edzard. Biblical Hebrew. S. Weninger (ed.). *The Semitic Languages: An International Handbook*. Berlin: De Gruyter Mouton, 2011. P. 480–514.
- Fales 2011 — F. M. Fales. Old Aramaic. S. Weninger (ed.). *The Semitic Languages: An International Handbook*. Berlin: De Gruyter Mouton, 2011. P. 555–573.
- Gadot 2010 — Y. Gadot. The Late Bronze Egyptian Estate at Aphek. *Tel Aviv*. 2010. Vol. 37. P. 48–66.
- Gardiner 1916 — A. H. Gardiner. The Egyptian Origin of the Semitic Alphabet. *Journal of Egyptian Archaeology*. 1916. Vol. 3. Iss. 1. P. 1–16.
- Gardiner 1957 — A. H. Gardiner. Egyptian Grammar, Being an Introduction to the Study of Hieroglyphs. 3rd ed., rev. Oxford: Griffith institute, 1957.
- Gelb 1963 — I. J. Gelb. A Study of Writing. Rev. ed. Chicago: University Press, 1963.
- George 2003 — A. R. George. The Babylonian Gilgamesh Epic. Introduction, critical edition and cuneiform texts. 2 vols. Oxford: University Press, 2003.
- Gilmour, Kitchen 2012 — G. Gilmour, K. A. Kitchen. Pharaoh Sety II and Egyptian Political Relations with Canaan at the End of the Late Bronze Age. *Israel Exploration Journal*. 2012. Vol. 62. No. 1. P. 1–21.
- Goldwasser 1984 — O. Goldwasser. Hieratic Inscriptions from Tel Sera' in Southern Canaan. *Tel Aviv*. 1984. Vol. 11. Iss. 1. P. 77–93.
- Goldwasser 1991 — O. Goldwasser. An Egyptian Scribe from Lachish and the Hieratic Tradition of the Hebrew Kingdoms. *Tel Aviv*. 1991. Vol. 18. Iss. 2. P. 248–253.
- Goldwasser 2015 — O. Goldwasser. The Invention of the Alphabet: On “Lost Papyri” and the Egyptian “Alphabet”. Ch. Rico, C. Attucci (eds.). *Origins of the Alphabet: Proceedings of the First Polis Institute Interdisciplinary Conference*. Cambridge: Scholars Pub., 2015. P. 124–140.
- Goldwasser 2016 — O. Goldwasser. From the Iconic to the Linear—the Egyptian Scribes of Lachish and the Modification of the Early Alphabet in the Late Bronze Age. I. Finkelstein, Ch. Robin, Th. Römer (eds.). *Alphabets, Texts and Artifacts in the Ancient Near East. Studies presented to B. Sass*. Paris: Van Dieren Éditeur, 2016. P. 118–160.
- Goldwasser, Wimmer 1999 — O. Goldwasser, S. J. Wimmer. Hieratic Fragments from Tell el-Far'ah (South). *Bulletin of the American Schools of Oriental Research*. 1999. No. 313. P. 39–42.
- Hamilton 2006 — G. J. Hamilton. The Origins of the West Semitic Alphabet in Egyptian Scripts. Washington: Catholic Biblical Association of America, 2006.

- Haring 2015 — B. Haring. The Sinai Alphabet: Current State of Research. R. E. de Jong (ed.). *Proceedings of the Multidisciplinary Conference on the Sinai Desert*. Cairo: Netherlands-Flemish Institute, 2015. P. 18–32.
- Helck 1971 — W. Helck. Die Beziehungen Ägyptens zu Vorderasien im 3. und 2. Jahrtausend v. Chr. 2., verbesserte Auflage. Wiesbaden: Harrassowitz, 1971.
- Helck 1972 — W. Helck. Zur Herkunft der sog. ‘phönizischen’ Schrift. *Ugarit-Forschungen*. 1972. Bd. 4. P. 41–45.
- Helck 1989 — W. Helck. Grundsätzliches zur sog. “Syllabischen Schreibung”. *Studien zur Altägyptischen Kultur*. 1989. No. 16. P. 121–143.
- Higginbotham 2000 — C. R. Higginbotham. Egyptianization and Elite Emulation in Ramesside Palestine: Governance and Accommodation on the Imperial Periphery. Leiden: Brill, 2000.
- Hoch 1994 — J. Hoch. Semitic Words in Egyptian Texts of the New Kingdom and Third Intermediate Period. Princeton, NJ: University Press, 1994.
- Hodge 1969 — C. T. Hodge. The Hieratic Origin of the Ugaritic Alphabet. *Anthropological Linguistics*. 1969. Vol. 11(9). P. 277–289.
- Hoffmeier 2004 — J. K. Hoffmeier. Aspects of Egyptian Foreign Policy in the 18th Dynasty in Western Asia and Nubia. G. N. Knoppers, A. Hirsch (eds.). *Egypt, Israel, and the Ancient Mediterranean World: Studies in Honor of D. B. Redford*. Leiden: Brill, 2004. P. 121–141.
- Jeffery 2007 — A. Jeffery. Foreign Vocabulary of the Qur’ān. Oriental in Baroda: Oriental Institute. (1st ed. 1938). Leiden: Brill, 2007.
- Kaufman 1974 — S. A. Kaufman. The Akkadian Influences on Aramaic. Chicago: University Press, 1974.
- Killebrew 2005 — A. E. Killebrew. Biblical Peoples and Ethnicity: An Archaeological Study of Egyptians, Canaanites, Philistines, and Early Israel, 1300–1100 B.C.E. Atlanta: Society of Biblical Literature, 2005.
- Koch 2014 — I. Koch. Goose Keeping, Elite Emulation and Egyptianized Feasting at Late Bronze Lachish. *Tel Aviv*. 2014. Vol. 41. Iss. 2. P. 161–179.
- Koch 2018 — I. Koch. The Egyptian-Canaanite Interface as Colonial Encounter: A View from Southwest Canaan. *Journal of Ancient Egyptian Interconnections*. 2018. Vol. 18. P. 24–39.
- Kogan 2011 — L. Kogan. Proto-Semitic Phonetics and Phonology. S. Weninger (ed.). *The Semitic Languages: An International Handbook*. Berlin: De Gruyter Mouton, 2011. P. 54–151.
- Korostovtsev 1973 — M. A. Korostovtsev. Grammaire du Néo-Égyptien. Moscou: Naouka, 1973.
- Krebernik 2007 — M. Krebernik. Buchstabennamen, Lautwerte und Alphabetgeschichte. R. Rollinger, A. Luther, J. Wiesehöfer (eds.). *Getrennte Welten? Kommunikation, Raum und Wahrnehmung in der Alten Welt*. Frankfurt am Main: Verlag Antike, 2007. P. 108–175.

- Lehmann 2012 — R. G. Lehmann, 27–30–22–26 — How Many Letters Needs an Alphabet? The Case of Semitic. A. de Voogt, J. F. Quack (eds.). *The Idea of Writing: Writing across Borders*. Leiden: Brill, 2012. P. 11–52.
- Lemaire 2008 — A. Lemaire. The Spread of Alphabetic Scripts (c. 1700–500 BCE). *Diogenes*. 2008. Vol. 55/218. Iss. 2. P. 44–57.
- Lemaire 2012 — A. Lemaire. West Semitic Epigraphy and the History of the Levant during the 12th–10th centuries BCE. G. Galil, A. Gilboa, A. M. Maeir, D. Kahn (eds.). *The Ancient Near East in the 12th–10th Centuries BCE: Culture and History. Proceedings of the International Conference held at the University of Haifa, 2–5 May, 2010 (AOAT 392)*. Münster: Ugarit-Verlag, 2012. P. 291–307.
- Maeir et al. 2008 — A. M. Maeir, S. J. Wimmer, A. Zukerman, A. Demsky. A Late Iron Age I/Early Iron Age II Old Canaanite Inscription from Tell eš-Šâfi/Gath, Israel: Palaeography, Dating, and Historical-Cultural Significance. *Bulletin of the American Schools of Oriental Research*. 2008. No. 351. P. 39–71.
- Militarev, Kogan 2000 — A. Militarev, L. Kogan. Semitic Etymological Dictionary. Vol. 1: Anatomy of Man and Animals (AOAT 278/1). Münster: Ugarit-Verlag, 2000.
- Morenz 2011 — L. Morenz. Die Genese der Alphabetschrift: Ein Markstein ägyptisch-kananäischer Kulturkontakte. Würzburg: Ergon, 2011.
- Mynářová 2010 — J. Mynářová. Tradition or Innovation? The Ugaritic-Egyptian Correspondence. *Ägypten und Levante (Egypt and the Levant)*. 2010. Vol. 20. P. 363–372.
- Na'aman 1981 — N. Na'aman. Economic Aspects of the Egyptian Occupation of Canaan. *Israel Exploration Journal*. 1981. Vol. 31. No. 3/4. P. 172–185.
- Naveh 1987 — J. Naveh. Early history of the Alphabet. An Introduction to West Semitic Epigraphy and Palaeography. 2nd rev.ed. Jerusalem: Magnes Press, Hebrew University Press, 1987.
- Nemirovskaya, Soushchevsky 2016 — A. V. Nemirovskaya, A. G. Soushchevsky. The Egyptian Origin of Names and Forms of the West Semitic (Canaanite) Consonantal Graphemes Illustrated by MĪM / MĒM and NŪN. N. N. Kazansky (ed.). *Indo-European linguistics and classical philology XX (J. M. Tronsky memorial conference): Proceedings of the International Conference, St. Petersburg, 20–22 June, 2016*. St. Petersburg: Nauka, 2016. P. 765–775.
- Pardee 2007 — D. Pardee. The Ugaritic Alphabetic Cuneiform Writing System in the Context of Other Alphabetic Systems. C. L. Miller (ed.). *Studies in Semitic and Afroasiatic Linguistics presented to G. B. Gragg. Studies in Ancient Oriental Civilization 60*. Chicago: University Press, 2007. P. 181–200.
- Rainey 2010 — A. F. Rainey. Turquoise Miners Did *Not* Invent the Alphabet, 2010. Available at: <http://www.biblicalarchaeology.org/daily/biblical-artifacts/inscriptions/rainey-s-first-critique/> (accessed on 09.09.2017).

- Redford 2003 — D. B. Redford. The Wars in Syria and Palestine of Thutmose III. Leiden: Brill, 2003.
- Rendsburg 1996 — G. A. Rendsburg. Semitic Words in Egyptian Texts. A rev. of: J. Hoch. Semitic Words in Egyptian Texts of the New Kingdom and Third Intermediate Period. Princeton, 1994. *Journal of the American Oriental Society*. 1996. Vol. 116. No. 3. P. 508–511.
- Sass 2005 — B. Sass. The Genesis of the Alphabet and its Development in the Second Millennium B.C. Twenty Years Later. Ch. Robin (ed.). *De Kêmi à Birût Nâri: Revue Internationale de l'Orient Ancien 2*. Paris: Geuthner, 2005. P. 147–166.
- Sass 2017a — B. Sass. The Emergence of Monumental West Semitic Alphabetic Writing, with an Emphasis on Byblos. *Semitica*. 2017. Vol. 59. P. 109–141.
- Sass 2017b — B. Sass. The Khirbet Qeiyafa Ostrakon in its Setting. S. Schroer, S. Münger (eds.). *Khirbet Qeiyafa in the Shephelah. Papers Presented at a Conference of the SGOA/SSPOA at the University of Bern, September 6, 2014 (Orbis Biblicus et Orientalis 282)*. Fribourg (CH): Academic Press, 2017. P. 87–111.
- Sethé 1918 — K. Sethé. Die neuentdeckte SinaiSchrift und die Entstehung der Semitischen Schrift. Nachrichten von der Gesellschaft der Wissenschaften zu Göttingen, Philologisch-Historische Klasse aus dem Jahre 1917. Berlin: Weidmannsche Buchhandlung, 1918. P. 437–475.
- Shai 2011 — I. Shai. Philistia and the Philistines in the Iron Age IIA. *Zeitschrift des Deutschen Palästina-Vereins*. 2011. Bd. 127. H. 2. P. 119–134.
- Shisha-Halevy 1978 — A. Shisha-Halevy. An Early North-West Semitic Text in the Egyptian Hieratic Script. *Orientalia*. 1978. Vol. 47. No. 2. 1978. P. 145–162.
- Sokoloff 1990 — M. Sokoloff. A Dictionary of Jewish Palestinian Aramaic of the Byzantine period. Ramat-Gan: BarIlan University Press, 1990.
- Steiner 2005 — R. C. Steiner. On the Dating of Hebrew Sound Changes (Ḥ>Ḥ and Ġ>') and Greek Translations (2 Esdras and Judith). *Journal of Biblical Literature*. 2005. Vol. 124. No. 2. P. 229–267.
- Steiner 2011 — R. C. Steiner. Ḥ > Ḥ in Assyria and Babylonia. G. Frame, E. Leichty, K. Sonik, Jeffrey H. Tigay, S. Tinney (eds.). *A Common Cultural Heritage: Studies on Mesopotamia and the Biblical World in Honor of Barry L. Eichler*. Bethesda: CDL Press, 2011. P. 195–206.
- Streck 2001 — M. P. Streck. Keilschrift und Alphabet. D. Borchers, F. Kammerzell, S. Weninger (eds.). *Hieroglyphen, Alphabete, Schriftreformen: Studien zu Multiliteralismus, Schriftwechsel und Orthographieneuregelungen, Lingua Aegyptia-Studia monographica 3*. Göttingen: Seminar für Ägyptologie und Koptologie, 2001. P. 77–97.
- Streck 2005 — M. P. Streck. Orthographie. B. Akkadisch im II. und I. Jt. § 4. Neu-/Spätbabylonisch und Neuassyrisch. *Reallexikon der Assyriologie*. 2005. Bd. 10. P. 139–140.

- Streck 2017 — M. P. Streck. Late Babylonian in Aramaic Epigraphs on Cuneiform Tablets. A. Berlejung, A. M. Maier, A. Schüle (eds.). *Wandering Arameans: Arameans Outside Syria. Textual and Archaeological Perspectives*. Wiesbaden: Harrasowitz Verlag, 2017. P. 169–194.
- Sweeney 2005 — D. Sweeney. The Hieratic Inscriptions. D. Ussishkin (ed.). *The Renewed Excavations at Lachish (1973–1994)*. Tel Aviv University: Monograph Series of the Institute of Archaeology 22, 2005. V. III. P. 1601–1617.
- Taylor 1883 — I. Taylor. The Alphabet. An Account of the Origin and Development of Letters in Two Volumes. Vol. 1: Semitic Alphabets. London: Kegan Paul, Trench & CO, 1883.
- van der Toorn 2018 — Karel van der Toorn (ed.). Papyrus Amherst 63. (AOAT 448). Münster: Ugarit-Verlag, 2018.
- van Soldt 2010 — W. H. van Soldt. Ugarit as a Hittite Vassal State. *Altorientalische Forschungen*. 2010. Vol. 37. Iss. 2. P. 198–207.
- Weidmüller 1960 — W. Weidmüller. Phoinikische Buchstaben — ägyptische Bildzeichen. 1. Teil: Herkunft der Buchstabennamen AK.; 2. Teil: Herkunft der Buchstabennamen LT. *Börsenblatt für den deutschen Buchhandel-Frankfurter Ausgabe*. No. 39 (17.5.1960). P. 733–739; No. 46 (10.6.1960). P. 985–991.
- Weinstein 1981 — J. M. Weinstein. The Egyptian Empire in Palestine: A Reassessment. *Bulletin of the American Schools of Oriental Research*. 1981. No. 241. P. 1–28.
- Wimmer, Lehmann 2014 — S. J. Wimmer, G. Lehmann. Two Hieratic Inscriptions from Qubur el-Walaydah. *Ägypten und Levante (Egypt and the Levant)*. 2014. Vol. 24. P. 343–348.
- Wimmer, Maier 2007 — S. J. Wimmer, A. M. Maier. “The Prince of Safit?” A Late Bronze Age Hieratic Inscription from Tell ešŠâfi / Gath. *Zeitschrift des Deutschen Palästina-Vereins*. 2007. Bd. 123. H. 1. P. 37–48.
- Zauzich 2002 — K.-Th. Zauzich. Von den Hieroglyphen zum Alphabet. U. Sinn (ed.). *Schrift, Sprache, Bild und Klang: Entwicklung der Schrift von der Antike bis in die Neuzeit*. Würzburg: Ergon, 2002. P. 48–53.
- Zauzich 2003 — K.-Th. Zauzich. Unsere Buchstaben — ägyptische Hieroglyphen. W. Seipel (ed.). *Der Turmbau zu Babel. Ursprung und Vielfalt von Sprache und Schrift*. Bd. 3 A: Schrift. Wien-Milano: Kunsthistorisches Museum, 2003. P. 183–189.
- Zauzich 2015 — K.-Th. Zauzich. Hieroglyphen mit Geheimnis: Neue Erkenntnisse zur Entstehung unseres Alphabets. Darmstadt: Zabern Philipp von GmbH, 2015.