

The spirit of alphabet and monotheism

BAE Chulhyun
Seoul National University, KOREA

1. Introduction

There are a myriad of ways by which the transmission of knowledge may take place throughout human history. From the very beginning of human civilization, the spread of human knowledge, the core of civilization has been crucially facilitated by the use of writing. Writing, as a method of recording and communicating information, forms part of this human knowledge that emerged and evolved over human history. Its appearance, in several forms, dates from around the end of the 4th millenium before the Common Era.

Of the various writing systems that emerged out of the ancient Near East, the alphabet has undoubtedly exerted the most lasting influence. The two other dominant systems of writing that were invented in the Middle East, Mesopotamian cuneiform and Egyptian hieroglyphs, at the end of 4th millenium BCE, had been used more than 2500 years and eventually died out along with their respective cultures. The alphabetic systems of writing, however, have remained in use without interruption into modern times and are pervasive in the world today. In fact, with the notable exceptions of Chinese and Japanese, the most common languages of the world utilize

alphabetic scripts that are ultimately descended from the linear West Semitic alphabet.

The functional advantage of the alphabet over other writing systems lies in its minimalism. Logographic systems, like ancient Egyptian or Sumerian, in which a given symbol denotes a word, or to syllabic writing, in which a sign represents a full syllable of sound. Alphabetic writing is economical. Its graphic representation of phonemes, that is, the shortest contrastive units of sound in a language (consonants or vowels) drastically decrease number of signs, up to at most 30. Typical alphabetic systems have tens of signs, whereas logographic and syllabic systems have easily hundreds. This would no doubt have made the system easier to learn and master. Alphabetic system is of minimally acrophonic principle with around 30 signs, to represent essentially the sounds of a Semitic language, though initially only its consonants.

The history of the diffusion of this form of writing, which was simpler and easier to learn than the Egyptian hieroglyphic writing or cuneiform scripts (of Sumerian, Akkadian, Elamite, Hittite, Hurrian etc.) at that time, provides us with a fine example of the spread of a particular form of human knowledge into regions and civilizations that are different one from another. The intention of this paper is to try to comprehend the manner by which the first alphabetic scripts arose in Middle Bronze Age in Near East (1900-1500 BCE) and the spirit of those who invented the first alphabetic system.

It must immediately be acknowledged, however, that the documents available to us for reconstructing the early history of the earliest alphabetic scripts remain limited, even if we can see a gradual increase in their number. Numerous aspects of this invention are still unknown to us, and we are hence reduced to suggesting a working hypothesis on the basis of the current state of documentation. This ad hoc hypothesis inevitably provokes quite sharp differences of interpretation among specialists. It is in

such a context that this study examines the birth of alphabetic writing, then the creators of this writing, then finally aims to find out the spirit behind the genesis of alphabetic system.

2. The Birth of Alphabetic Writing

The emergence of the first alphabetic script is not directly documented and remains shrouded in obscurity. Nevertheless, some aspects seem clear and are generally accepted by those studying this problem in its historic context (Naveh, 1982; Sass, 1989: 44-50, 195; 1991; 2005)

Ancient Greek and Latin authors generally attribute the origin of the Greek Alphabet to the Phoenicians. According to Herodotus (Book V, 58:332): "the Phoenicians...introduced into Greece, after their settlement in the country, a number of accomplishments, of which the important was writing, an art still then, I think, unknown to the Greeks...they were taught these letters by the Phoenicians and adopted them, with a few alterations, for their own use, continuing to refer to them as Phoenician characters-as was only right, as the Phoenicians had introduced them'. It was Tacitus, who insisted the Egyptian origin. According to Tacitus (Annals XI, 14), referring to the moment when new letters were introduced to the Latin alphabet during the reign of Claudius, the Phoenicians were simply intermediaries, with the ultimate origin of this form of writing being linked to the Egyptians: "(The Egyptians) also claim to have discovered the alphabet and taught it to the Phoenicians who, controlling the seas, introduced it to Greece and were credited with inventing what they had really borrowed".

There is evidence that the Egyptian script from its time of origin possessed around 30 signs whose consonantal value was derived by acrophony. They were especially used in the transcription of foreign proper

names. However, Egyptian scribes never systematized the use of these consonantal signs to make an alphabetic script from them.

Modern commentators have certainly seen that the Phoenician alphabet had borrowed from Egypt both the principle of single-letter signs, the derivation of their consonantal value by acrophony, the linear script form and even the selection of a certain number of signs. At the same time they emphasize that the consonantal value of the signs did not correspond to that of the Egyptian language but to that of a West-Semitic language (to which Phoenician, Hebrew and Aramaic were associated in the 1st millennium BCE).

The earliest evidence for alphabetic writing comes from the second millennium BCE in the Sinai and Egypt. Early Bronze Age came to an end before the close of the third millennium BCE and Egypt endured the First Intermediate Period (c. 2180-2040 BCE). The new millennium saw the rebuilding of old cities and founding of new ones. In the turmoil of international politics, there arose kingdoms of Amorites and other groups of West Semitic speaking people, very close to the wandering nomads, like patriarchs in Hebrew Bible. (Millard 1986: 391) The Proto-Sinaitic inscriptions, first discovered by W. M. F. Petrie in 1905 (and supplemented by additional finds in subsequent decades), consist of linear pictographic symbols inscribed on statuettes, stone panels, and rock faces at Serabit el-Khadem, an ancient Egyptian turquoise mines in the Sinai Peninsula. (Petrie 1906: 103ff) More recently, in the mid-1990s, two single-line rock inscriptions were discovered at the desert site of Wadi el-Hol, near Thebes in Upper Egypt, in a script that strongly resembles the Proto-Sinaitic texts. Due to the lack of stratified archaeological contexts for these finds, absolute dates have proven difficult to establish, though some scholars place them as early as the beginning of the second millennium BCE (12th Dynasty) on the basis of associated Egyptian material as well as historical considerations.

The hybrid nature of these earliest signs gives us clues regarding the socio-historical context for the origins of the alphabet. On the one hand, most if not all of these earliest pictographs have plausible connections to Egyptian hieroglyphic (and perhaps hieratic) symbols, implying that the inventors were influenced at some level by Egyptian writing. On the other hand, the phonemes represented by these symbols are derived from the West Semitic (and not Egyptian) words behind the pictographs. For instance, the sign for a hand is used to denote the /k/ sound through the West Semitic word *kaph* for “palm” or “hand,” a word that also comes to be the name of the letter. (For comparison, the Modern Hebrew name for the corresponding letter is precisely *kaph*; note also the Greek letter name *kappa*.) This association of the letter name (*kaph*) with its initial phoneme (/k/) is called the acrophonic principle, and the fact that it is via the Semitic vocabulary that such a principle operates suggests that the linear alphabet arose for the purpose of writing a Semitic language. In fact, it is based on this assumption that the Sinai inscriptions have been partially deciphered, 6 revealing intelligible phrases such as *lb^{al}lt* (“for the Lady”) and *rb nqbnm* (“chief of the miners”).

The presence of Egyptian inscriptions in the vicinity of either Serabit el-Khadem or Wadi el-Hol would have provided sufficient impetus for such an invention to occur, if in fact one of these sites represents the ultimate place of origin. Though the paucity of the evidence prevents us from being too dogmatic on the details, what we can assert with reasonable confidence is that the alphabet was invented among Semitic speakers in the Egyptian realm, inspired iconographically by hieroglyphic writing but not bound by its modes of expression. The presence of Asiatics in Egypt as various kinds of workers (e.g., builders, miners, mercenaries, etc.) in the Middle Kingdom is well documented and would furnish the broader socio-historical backdrop for this remarkable innovation.

Another collection of data coming from the second millennium is the Proto-Canaanite inscriptions, an umbrella term for a diverse and fragmentary group of texts (inscribed on pottery and other objects) hailing from various sites in Palestine, some of which do have secure archaeological contexts. Though the archaeological evidence overall is spotty and inconclusive, two tentative reasons can be suggested for placing these later than the inscriptions from Serabit el-Khadem and Wadi el-Hol. First, within the Proto-Canaanite texts, one can observe a gradual evolution away from purely pictographic shapes to more abstract, stylized forms. Second, their context in Palestine puts them one step removed geographically from the Egyptian sphere, the presumed context of the alphabet's invention.

The problem which remains unsolved is that of the location and date of this first alphabetic script: regarding the site, various hypothesis have been put forward which most often are based around the geographical locality where the oldest alphabetic inscriptions have been found. As a consequence, the following areas have been proposed (Hamilton 2009):

- (a) The Southern Levant which is the former area of Canaan and more especially the South of Palestine in a site such as Gezer, Lachish or Tell el-'Ajjul (Sharuhun?);
- (b) The Sinai, more particularly the turquoise mines of Serabit el-Khadem where 45 non-Egyptian 'proto-Sinaitic' inscriptions have been discovered, for which there is general agreement in considering them to be alphabetic, even if it has not been possible to decipher them with any certainty;
- (c) The Egyptian delta, possibly during the period of the 'Hyksos' domination (15th dynasty) who established their capital at Avaris/Tell ed-Dab'a and who were of Asian and Semitic origin.
- (d) The recent discovery of an apparently alphabetic piece of graffiti on a rock in the Wadi el-Hol (Upper Egypt) has led to the suggestion that the first alphabetic writing might have been located here, created by Asian mercenaries in the service of the Egyptians (Darnell, 2005).

The date of the 'invention' of the alphabet is even more imprecise. Almost the full range of dates between the Egyptian Middle Kingdom and the end of the New Kingdom has come to be put forward, that is, between 2000 and 1300 BCE approximately. A revelatory example of this continuing uncertainty is the fact that the same author who 20 years ago maintained a dating from the period of the Middle Kingdom (12th dynasty) (Sass, 1988: 135-44; 1989: 44-50, 195) now proposes a much later date: c. 1300 BCE (Sass, 2004/5), whereas the publishers of the Wadi el-Hol inscriptions hold to a probable dating of the origin of the alphabet at the beginning of the Middle Kingdom (Darnell 2005:90).

It is true that most of the earliest alphabetic inscriptions are very difficult to date because they have been inscribed on rocks or discovered in a very fragmentary state dissociated from any stratigraphic layers. Nevertheless, if it is accepted that the Lachish dagger inscription I very probably alphabetic, that suggest the alphabet was know at Lachish at the end of the Bronze Age, around 1600 BCE (Sass, 2004/5:156, admits that this is the point of weakness of his new working hypothesis). Furthermore, the existence of a sort of bilingual inscription in Egyptian hieroglyphics and Semitic alphabetic script on the famous sphinx of Serabit el-Khadem seems to suggest the existence of a sort of official bilingualism which would be quite understandable during the Hyksos period. What is more, such a scribal innovation can better be understood if it arose within bilingual royal scribes, such as was probably the case under the Hyksos domination. Thus, in the current state of the documentary evidence, the most credible working hypothesis would seem to link the origins of the alphabet with the period of Hyksos dominance in the south of Palestine or in the Egyptian Delta around the 17th century BCE.

3. Two Examples of Early Alphabet Writings in Middle Bronze Age (ca. 1900-1550 BCE)

As early as 1916, the great Egyptologist A. Gardiner insisted the Egyptian origin of Semitic Alphabetic system. (Gardiner 1916) According to him, the chief meeting places of Egyptians and Semites, before the rise of Egyptian domination in Syria, were the Lebanon and the Sinaitic peninsula. No memorials of the envoys from Egyptian pharaohs were retrieved either in Lebanon. The mining districts in Sinai, whence the highly priced turquoise was fetched, there are abundant hieroglyphic remains from the very beginning of Egyptian history.

By the beginning of the Egyptian Middle Kingdom immigrants from Palestine poured into the eastern Delta. Egyptian authorities began to build a series of ports at strategic points to repel "Asiatics". (Goldwasser 2010: 23) It were Amenemhat III(1860-1814 BCE) and IV(1815-1806 BCE) who allowed and welcomed Asiatics to settle in the eastern Delta. Expensive royal gifts were sent to Byblos, and the mining and building projects in Sinai reached a new peak. It was at this time that Asiatics began to settle at the site of what would later be Avaris in greater numbers. Far from the Delta, bustling activity in Sinai brought together architects, high officials, builders, miners, physicians, scorpion charmers, translators, and many scribes and soldiers of all ranks and levels from Palestine. From the relatively transparent texts from the temple area and the mines, mostly dating from the late Middle Kingdom, we learn of many Asiatics of different ranks that took part in this activity. In the center of the mining area, the Egyptians erected a temple that was constantly rebuilt and enlarged by the Egyptian official administration and was adorned by royal and private stelae of all sorts. The temple area preserves hundreds of good quality hieroglyphic inscriptions, many of them showing excellently

executed hieroglyphs, made by professional scribes trained in hieroglyphic writing.

3.1. Serabit el-Khadem Inscriptions

When Petrie found the alphabetic inscriptions in Serabit el-Khadem in 1905, he himself seems never to regard them as more than "a local barbarism." (McCarter 1974: 57). It was Sir Alan Gardiner who first recognized the genuine significance of the system and its essential character. Most of the inscriptions in this alphabet were discovered in or near the turquoise mines at Serabit el-Khadem in Sinai and date to a few hundred years after the initial invention. The Sinai version of this alphabet is called Proto-Sinaitic and is identical to Proto-Canaanite. Gardiner went to suggest that the first alphabet was pictographic in design and acrophonic in operative principle and that it might have been adopted under Egyptian influence since hieroglyphs showed similar characteristics.

Shown here in a drawing and photographs is the longest of the proto-Sinaitic inscriptions, found on the wall of Mine L at Serabit. The photographs have been aligned with the corresponding letters drawn by W. F. Albright based on an earlier tracing from the rock wall. Each letter-pictograph stands for the first sound of the Semitic word for the object represented.



In 1916, Gardiner correctly identifies the repetitive group of signs in four letters in an alphabetic script that represented a word in a Canaanite language: *b-'l-t* vocalized *Baalat*, "the Mistress; Lady". Gardiner suggested that *Baalat* was the Canaanite appellation for Hathor, the goddess of the turquoise mines in Serebit el-Khadem.

An important key to the decipherment was a unique bilingual inscription on a small sphinx from the temple which contains two parallel inscriptions in Egyptian and a new script. The Egyptian hieroglyph reads: *Ht-Hr mry Hmt n mfkAt* "The beloved of Hathor, the mistress of turquoise." The text in the strange script reads: *m-'h-(b) b-'l-[t]*, "The beloved of Baalat." Each of the critical letters in the word Baalat consists of a house, an eye, an ox goad and a cross.

3.2. Wadi el-Hol Inscriptions

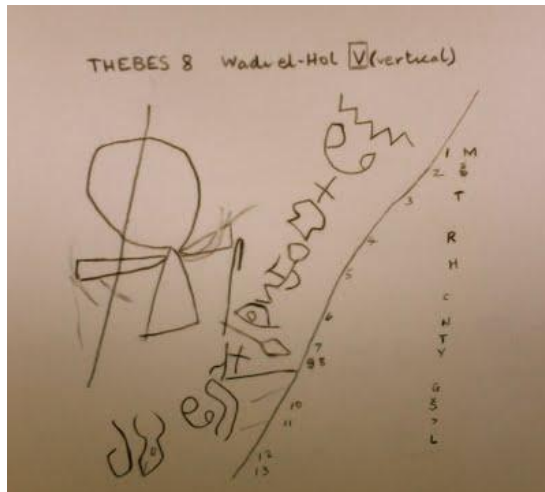
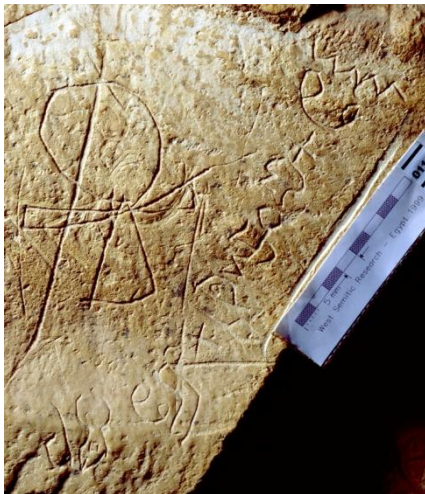
The Egyptologists John C. and Deborah Darnell discovered two short but complete early alphabetic texts along with several hundred Egyptian ones inscribed on a rock wall at Wadi el-Hol in southern Egypt. The site comprised a stopover point on a road that ran to Thebes. Much traffic, especially of military troupes, took that road late in Egypt's Middle Kingdom and during its Second Intermediate Period, ca. 1800-1600 BCE, leaving remains of religious offerings and inscriptions recording their presence.

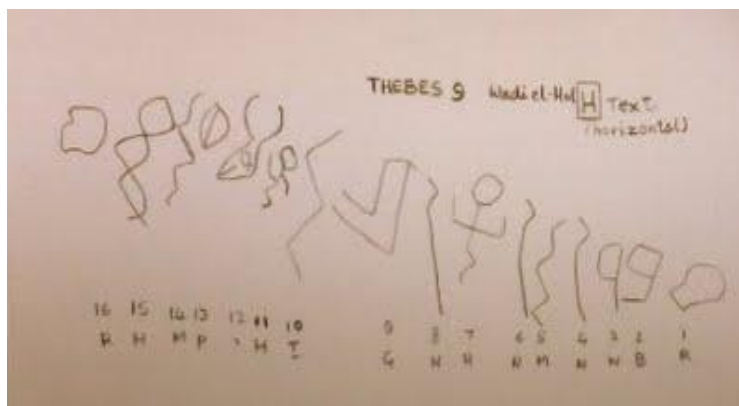
Where written in the Egyptian or West Semitic languages, all of the inscriptions on that wall at Wadi el-Hol can be classified as graffiti, or, "informal writings". The initial editors were hesitant in offering a translation of most of these two short texts: "Aside from *rb/rab/* 'chief' at the beginning of the horizontal inscription and perhaps *l/il(u)/* 'god, El' (either as an independent noun or as a theophoric element in a name) in the vertical inscription, no other sequence of signs in transparently decipherable; and thus our reluctance to speculate more specifically on

The spirit of alphabet and monotheism

possible decipherments at this time." (Darnell 2005: 85-86; Wimmer 2001: 107-12; Altschuler 2002: 201-204)

They dated these inscriptions in Middle Bronze Age, probably ca. 1850-1700 BCE based on three factors: (a) the locations of these two texts on some of the better surfaces of the rock wall at Wadi el-Hol, most whose Egyptian inscriptions dated to late in Egypt's Middle Kingdom or Second Intermediate Period; (b) the presence of West Semitic-speaking troupes of soldiers (and their families) at the site of Wadi el-Hol documented in two Egyptian inscriptions from late in the Middle Kingdom; and (c) the relatively undeveloped state of the forms of the letter of these two early alphabetic texts to their Egyptian prototypes. (Hamilton 2009) The two early alphabetic texts provide strong evidence that West Semites borrowed both hieroglyphic and hieratic forms of a limited number of Egyptian signs to use as the letters of their consonantal alphabet.





4. Who invented Alphabet?

The presence of Asiatics, apparently as foreign workers in well documented. Already in Middle Kingdom times, Egyptian hieroglyphic texts from Serabit and other Sinaitic sites listed workers specifically from Syria and Palestine. (McCarter 1974: 58)

O. Goldwasser, in her seminal article, "How the Alphabet Was Born from hieroglyphs," contends that the inventors of the alphabet were illiterate.

(Goldwasser 2010) On the basis of critical study on the Serabit el-Khadem inscriptions, she argues that the Egyptian turquoise expeditions to Serabit brought together high officials, scribes, priests, architects, physicians, magicians, scorpion charmers, interpreters, caravan leaders, donkey drivers, miners, builders, soldiers, and sailors. (Goldwasser 2010, 39) She also states that some high officials who left inscriptions at the Serabit temple present themselves as Egyptians, yet they also mention that they are Asiatic in origin, or have an Asiatic mother. In addition, she notes that the expedition lists at Serabit also contain the names of many interpreters (Goldwasser 2010, 40). She affirms that the bottom line is that there were surely many more Canaanites at Serabit than are listed as such in the hieroglyphic inscriptions at the site. Furthermore, she notes that Nowhere in the many inscriptions at the site is there a mention of slaves. Canaanites, yes; slaves, no (Goldwasser 2010, 40). She believes that the inventors of the alphabet were Canaanite and even argues that we may even know the names of these inventors of the alphabet: They apparently emerged from among the circle of one Khebeded. He is mentioned in several Egyptian hieroglyphic inscriptions at the site and is referred to as the Brother of the Ruler of Retenu (Goldwasser 2010, 45), with Retenu being a means of referring to the southern Levant. She also affirms that It is clear that this Khebeded, brother of the Ruler of Retenu is a Canaanite (Goldwasser 2010, 45). She contends that Khebeded was involved with Egyptian expeditions to Serabit for more than a decade and she argues that he is clearly the highest-ranking Canaanite who left a hieroglyphic inscription in the Serabit temple. He was probably a leader of the Canaanite workforce. She contends that the quality of the hieroglyphs in an inscription that Khebeded added on a stela is very poor. She also states that it may seem strange, but I believe the inventors of the alphabet were illiterate that is, they could not read Egyptian with its hundreds of hieroglyphic signs. She then queries: Why do I think so? and then answers herself: The letters in the Proto-Sinaitic inscriptions are very crude. They are not the same size. They

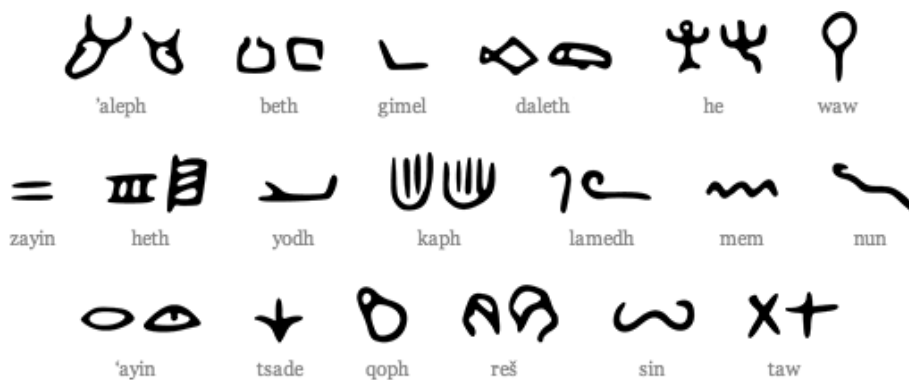
are not written in a single direction .this suggests that the writers had mastered neither Egyptian hieroglyphic nor any other complex, rule-governed script (Goldwasser 2010, 44). An additional piece of her argument is her contention that the Canaanite inventors of the alphabet unwittingly conflated two Egyptian signs for snakes into a single alphabetic sign for /n/ (Semitic: *nahash*, i.e., snake) and this confirms their ignorance of the meaning of the Egyptian hieroglyphs.

5. "Disruptive Innovation"

The inventors exercised the "Canaanite reading" procedure on signs they chose. For example, they ignored (or perhaps were ignorant of) the Egyptian phonetic reading of the "head" sign (= *tp*). Rather, they created a totally new sign which was composed of an Egyptian-like icon but refers to the Canaanite name of the icon, *reš*. In this way the system is "friendly" to speakers of the Semitic dialects, as the connection between signifier and signified is not arbitrary. Once the Canaanite user remembered the "head," he would have been able to remember and produce the grapheme which is the picture of a head. At this stage, the inventors introduced a novelty, the fundamental semiotic process typical of the alphabet. The final phonetic reading was reduced to the first segment (i.e., consonant [or syllable]) of the Canaanite "name," and the iconic signified (the meaning "head") was discarded. In the case of *reš*, only the first consonant *r* was retained. The final meaning of the grapheme is only *r*.

This break between the icon's meaning (the letter "name") and its end use (grapheme with the value of the first segment of the name only) finally caused a weakening of the iconicity level of the whole system, and indeed the correct pictorially meaningful grapheme would gradually change its form and, finally, lose the iconic connection to its "name." Yet at the

beginning, the mnemonic center of the system is the name of the grapheme, which at the early stages hints at the form of the grapheme. And as the relations between the name of the grapheme and its form are not arbitrary, the “name” keeps the road open for the non-professional writer to remember and recreate the grapheme from his memory. The non-arbitrariness of the script would have been of crucial importance in its early phases. Operating as a “fringe cultural product,” the upkeep and the legacy of the script was not backed up by any institution, and there was no establishment that might have been interested in promoting this popular invention. Sanders correctly refers to the script as “written vernacular.”



Canaanites that would have learned the news script informally during the late Middle Bronze Age and Late Bronze Age were probably far away from Sinai and Egypt. Yet they could reconstruct and remember the general form of the letters they had learned through the meaning of the names. Thus, it should not be surprising that the “head” grapheme on the Lachish dagger has no Egyptian characteristics, while some of the head signs in the Sinai inscriptions still retain traces of Egyptian coiffure. As far as the texts are decipherable, it seems that the inventors sought a way to convey their own names and titles and convey their personal relations to the Canaanite gods of their environment, *Baalat* and *El*.

Most graphemes which have already been identified in the Proto-sinaitic script may have found their origins in hieroglyphic prototypes of the late Middle Kingdom in Sinai. A smaller number of graphemes, e.g., *p* (*pe*), *š* (*šin*), and maybe *q*(*qop*) may have had referents not in the hieroglyphic script, but in objects that were part of the workers' daily life.

Some graphemes may reflect a combination of hieroglyphic prototypes and an actual referent. The working hypothesis is that the hieroglyphic prototype should resemble the Canaanite grapheme only on the iconic level, as the inventors could not read Egyptian, and thus might have related to the hieroglyphs only as "pictures".

Although historians unanimously praise the appearance of the alphabet as a remarkable advancement in civilization, outdating clumsy writing systems of Near East, the great merit of alphabetic system is its minimal economy. At the time of creation, it was a practical expediency to counter the lack of a native writing system among Canaanites. This new contrivance was never regarded as an improvement or replacement over the sophisticated systems of Egypt or Mesopotamia. The immediate advantage of the alphabet's economy was accessibility. (McCarter 1974, 58) As the art of writing was necessarily confined to professional scribes with long year of hard training, the opportunity for literary was out of "golden cage" and open to anyone who wanted to learn. It was too good to ignore for anyone who wished to express oneself. The first alphabet was an ad hoc device of anonymous genius.

If I borrow the terminology from Clayton Christensen, Professor of Business Administration at the Harvard Business School, the alphabetic writing was "a disruptive innovation". Disruptive innovations can hurt successful, well managed companies that are responsive to their customers and have excellent research and development. In the same vein, honorable writing systems at that time tend to ignore this disruptive innovation because the "markets", the traditional institutions tied to royal chancery, were

powerful. Although it took almost a millenium to gain popularity in Near East, it survived and is still one of the most powerful tool for human expression.

Reference:

- Albright, W. F. (1966) *The Proto-Sinaitic Inscriptions and Their Decipherment*, Harvard Theological Studies 22, Cambridge, MA.
- Altschuler, E. L (2002) "Gloss on One of the Wadi el-Hol Inscriptions," *Ancient Near Eastern Studies* 39: 201-204.
- Bietak, Manfred (2010) "Where Did the Hyksos Come From and Where Did They Go?" in M. Maré, ed., *The Second Intermediate Period OLA 192* (Leuven: Peeters, 2010), pp. 139-181.
- Chesson, M. et al. (2005) Results of the 2001 Kerak Plateau Early Bronze Age survey. *The Annual of the American Schools of Oriental Research* Vol. 59, (2005), pp. 1 + 3 + 5 + 7 + 9-62.
- Cross, F. M. (1979) "Early Alphabetic Scripts", in F. M. Cross (ed.), *Symposia Celebrating the Seventy-fifth Anniversary of the Founding of the American Schools of Oriental Research (1900--1975)*, pp. 97-124. Cambridge, MA: American Schools of Oriental Research.
- Cross, F. M. (1989) "The Invention and Development of the Alphabet", in W. M. Senner (ed.), *The Origins of Writing*, pp. 77-90. Lincoln: University of Nebraska Press.
- Cross, F. M. (1995) "Palaeography and the Date of the Tell Fahariyeh Bilingual Inscription", in Z. Zevit, S. Gitin, M. Sokoloff (eds), *Solving Riddles and Untying Knots: Biblical, Epigraphic, and Semitic Studies in Honor of Jonas C. Greenfield*, pp. 393-409. Winona Lake: Eisenbrauns.
- Cross, F. M., and LAMBDIN, T.O. (1960) *A Ugaritic Abecedary and the Origins of the Proto-Canaanite Alphabet*, *BASOR* 160, 21-26.
- Darnell, J. C. et al., (2005) Two Early Alphabetic Inscriptions from the Wadi el-Hôl: New Evidence for the Origin of the Alphabet from the Western Desert of Egypt, *The Annual of the American Schools of Oriental Research* 59. Boston: American Schools of Oriental Research.

Proceedings of the SCRIPTA 2012, Seoul, Oct. 8~10, 2012

- Gardiner, Alan H. (1916) "The Egyptian Origin of the Semitic Alphabet." *Journal of Egyptian Archaeology* 3: 1-16.
- Gardiner, Alan H. (1957) *Egyptian Grammar: Being an Introduction to the Study of hieroglyphs*. 3rd edition. Oxford: Griffith Institute
- Goldwasser, Orly (2002) *Prophets, Lovers and Giraffes: World Classification in Ancient Egypt* (with an Appendix by Matthias Müller), *Classification and Categorisation in Ancient Egypt* 3, *Göttinger Orientforschungen* IV/38, Wiesbaden.
- Goldwasser, Orly (2005) *Where Is Metaphor? Conceptual Metaphor and Alternative Classification in the hieroglyphic Script*, *Metaphor and Symbol* 20/2, 95-113.
- Goldwasser, Orly (2006a) *The Essence of Amarna Monotheism*, 267-279, in: G. MOERS, H. BEHLMER, K. DEMUSS, and K. WIDMAIER (eds.), *In the Footsteps of Friedrich Junge*, vol. I, Göttingen.
- Goldwasser, Orly (2006b) "Canaanites Reading hieroglyphs: Horus Is Hathor? — The Invention of the Alphabet in Sinai." *Ägypten und Levante: Internationale Zeitschrift für ägyptische Archäologie und deren Nachbargebiete* 16: 121-60.
- Goldwasser, Orly (2010) "How the Alphabet Was Born from hieroglyphs," *Biblical Archeology Review* 36: 23-43.
- Hamilton, Gordon J. (2006) *The Origins of the West Semitic Alphabet in Egyptian Scripts* CBQMS 40. Washington, DC: Catholic Biblical Association.
- Hamilton, Gordon J. (2009) "A Proposal to Read the Legend of a Seal-Amulet from Deir Rifa, Egypt as an Early West Semitic Alphabetic Inscription," *Journal of Semitic Studies* 54: 51-79.
- Hamilton, Gordon J.; Marcel Marée; Marilyn J. Lundberg; and Bruce Zuckerman (2007) "Three Recently Relocated Early West Semitic Alphabet Texts: A Photographic Essay." *MAARAV* 14/1: 27-37.
- McCarter, P. Kyle (1974) "The Early Diffusion of the Alphabet." *Biblical Archaeologist* 37: 54-68.
- Millard, Alan (1986) "The Infancy of the Alphabet," *World Archeology* 17: 390-98.
- Naveh, J. (1982) *The Early History of the Alphabet*. Jerusalem/Leiden: Magnes Press/Brill.
- Petrie, W. M. F. (1906) *Researches in Sinai*. London: John Murray.

- Petrie, W. M. F. (1917) *Scarabs and Cylinders with Names*, BSAE/ERA 29, London.
- Pliny the Elder (1961) *Natural History*, Books III–VII, Loeb Classical Library. Cambridge, MA: Harvard University Press.
- Rollston, Ch. A. (2006) 'Scribal Education in Ancient Israel: The Old Hebrew Epigraphic Evidence', *Bulletin of the American Schools of Oriental Research* 344: 47–74.
- Rougé, E. de (1874) *Mémoire sur l'origine égyptienne de l'alphabet phénicien* (juin 1859), ed. J. de Rougé. Paris: Imprimerie nationale.
- Sanders, S. L. (2004) 'What Was the Alphabet for? The Rise of Written Vernaculars and the Making of Israelite National Literature', *MAARAV* 11: 25–56.
- Sass, B. (1988) *The Genesis of the Alphabet and Its Development in the Second Millennium BC*, AAT 13. Wiesbaden: Harrasawitz.
- Sass, B. (1989) 'The Egyptian Middle Kingdom System for Writing Foreign Names and the Beginning of the West-Semitic Alphabet', in A. Ben-Tor et al. (eds), *Sefer Yigael Yadin Memorial Volume*. Jerusalem: Eretz-Israel.
- Sass, B. (1991) *Studia alphabetica. On the Origin and Early History of the Northwest Semitic, South Semitic and Greek Alphabets*. Fribourg/Göttingen: *Orbis Biblicus et Orientalis* 102.
- Sass, B. (2004/5) "The Genesis of the Alphabet and Its Development in the Second Millennium BC: Twenty Years Later", *De Kêmi à Birît Nâri. Revue internationale de l'Orient ancien* 2: 147–66.
- Sass, B. (2005) *The Alphabet at the Turn of the Millennium: The West Semitic Alphabet ca. 1150–850 BCE, The Antiquity of the Arabian, Greek and Phrygian Alphabets*. Tel Aviv: The Sonia and Marco Nadler Institute of Archaeology.
- Sass, B. (2008) "Wadi el-Hol and the Alphabet." In *D'Ougarit à Jérusalem: Recueil d'études épigraphiques et archéologiques offerts à Pierre Bordreuil*, edited by Carole Roche, pp. 193–203. Paris: De Boccard.
- Wimmer, S and S. Wimmer-Dweikat (2001) "The Alphabetic Texts from Wadi el-Hol: A First Try," *Goettinger Miszellen* 180(2001): 107-112.

Proceedings of the SCRIPTA 2012, Seoul, Oct. 8~10, 2012