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THE EGYPTIAN CONTEXT OF THE INVENTION OF THE ALPHABET (INSCRIPTIONS FROM SERABIT AL-KHADIM AND WADI AL-HÔL)

1. Introduction

The invention of the alphabetical writing and its further development constitute the subject of intensive research that has been conducted since the beginning of the twentieth century. The research material flowing in systematically, especially due to excavation works, provided a possibility to formulate several theories on the indicated subject. Many of them are outdated today, remaining only in the sphere of the history of science¹. Quite early, in the first two decades of the 20th century, mainly on the basis of discoveries made in Serabit al-Chadim (in Wadi Maghara in the south of Sinai) by William Flinders Petrie in the years 1904 – 1905, the attention was drawn to Egypt as the place of the alphabet *invention*². It was likely to happen around the middle of the second millennium B.C. Further refinement of the alphabet was carried out in Canaan in the following centuries. Regardless of the dating, one finding has not changed, namely the environment of the Semites as *inventors* of alphabetical writing. The discovery of two proto-alphabetical inscriptions in Wadi al-Hôl in the last decade of the 20th century further strengthened the ‘Egyptian theory’ of the origin of the alphabet and has made it (so far) unquestionable.

Both the earlier findings of the proto-alphabetical inscriptions in Sinai (called Proto-Sinaitic writings), and the ones from Wadi al-Hôl date back to the times of the Middle Kingdom (2055–1650 B.C.³) of Egypt. It is the period of great inflow of the Semitic tribes from Canaan to the Nile Delta. During the reign of the XII dynasty some measures were taken to seal the eastern border of the Delta, and thus control the influx of Asian Peoples

* Translated by Spektra Sp. z o.o.

¹ For more information on the topic, see: P. Nowogórski, *Kilka uwag na temat początków pisma alfabetycznego* in: „Dzieje dawne i nowe. Studia. Materiały. Opinie”, ed. D. Milewski, Warsaw 2011, pp. 13-24.

² More information on the excavation works of Petrie’s expedition to Sinai: W.M. Flinders Petrie, *Researches in Sinai*, London 1906.

³ Some researches close the Period of Middle Kingdom with the end of the XIIth dynasty and include the XIIIth dynasty in the second Transition Period – cf. e.g. H.A. Schlögl, *Starożytny Egipt. Historia i kultura od czasów najdawniejszych do Kleopatry*, Warsaw 2009, pp. 311-312; the temporary caesuras are provided after a chronological table in *The Oxford Dictionary of Ancient Egypt*, ed. I. Shaw, Oxford 2000, p. 480; the regnal years of the Egyptian kings are given after a chronological table H.A. Schlögl, op. cit., pp. 311-312.

to Egypt. The Prince's Wall was built during the reign of Amenemhat I (1976–1947 B.C.⁴), a peculiar ancient Egyptian *Maginot Line* which protected the Nile Delta from the Asian side⁵. The local border towers were still strengthened and expanded by the successors. Apart from taking such security measures, the influx of the Semitic peoples into north-eastern Egypt did not stop. Some of them could have been prisoners of war from the expeditions to Canaan conducted by Amenemhat II (1914–1879/76) and Senuseret III (1872–1853/52); others were legal incomers, allowed to enter Egypt under control. The latter ones were employed in large state investments (e.g. in the Faiyum Oasis or mining expeditions on the Sinai Peninsula). It is possible to find the term *miserable Asians* in the texts of that time, referring to the emigrants from Western Asia; however, they constituted quite a large part of the Egyptian population. Much weaker than the first kings of the 12th dynasty, the rulers of its decline – Amenemhat III (1853–1806/05), Amenemhat IV (1806/05–1798/97) and the Queen Neferusobek (1798/97–1794/93), did not manage to change the situation concerning the presence of the Semites on the Nile. It even happened that the newcomers were provided with an opportunity to settle in their *own* city. The *Kings of Herakleopolis* (the 9th and 10th dynasties 2160–2020) established a small settlement Hut-Uaret (Awaris, today Tell al-Dabaa) on the eastern shore of the Pelusian branch of the Nile, later expanded by Amenemhat I. It was there that the Canaanites settled at the end of the 12th dynasty. They erected houses according to their own building tradition and lived their lives. However, many of them had already been strongly egyptianised. It is worth noting that the representatives of other people of the Middle East lived in Hut-Uaret as well, which made the city a true ethnic, linguistic and cultural melting pot.

The 12th dynasty was followed by the reign of much weaker rulers who were included by Manethon in the 13th dynasty (ok. 1793–1650). In the face of the general political crisis throughout Egypt, the very sensitive north-eastern border was virtually out of control and the influx of the Semitic peoples increased even further. Consequently, it led to a 100-year domination of the Semitic Hyksos in the northern part of the country and another district disintegration of Egypt (the second Transition Period).

The Semitic emigrants (not slaves) were employed in mining expeditions to Sinai, financed from the state treasury.

In the mountains of the southern part of the Sinai Peninsula copper and turquoise were exploited. Senuseret I (1956–1911/10) erected a temple in honour of the goddess Hathor – the *Lady of Turquoise* at one of these mines (nowadays Serabit al-Khadim) (the mine was used, with intervals, until the end of the New Kingdom)⁶. According to archeological findings, turquoise was a highly valued jewellery material in Egypt. Only in the times of Amenemhat III, 28 mining expeditions to Serabit al-Khadim were organised. The alphabet may have been *invented* during the aforementioned expeditions.

⁴ All dates provided later in the text (unless stated otherwise) refer to the times before Christ.

⁵ H. Schögl, op. cit., p. 108.

⁶ G.D. Mumford, password *Serabit el-Khadim* in: “The Encyclopedia of Ancient History” – access online since 26 September 2012.

2. Proto-Sinaitic writing

Nowadays, it is certain that the oldest form of alphabet is the Proto-Sinaitic writing known for its several dozen (over fifty) inscriptions, coming mainly from the temple of the goddess Hathor in Serabit al-Khadim. The discovery was made by the British archeological mission in 1905 (A.D.), led by William Flinders Petrie. Among the inscriptions in hieroglyphic Egyptian writing (mainly hieratic), the researchers identified inscriptions made by means of unknown signs. Petrie was not able to decipher the problem but 10 years later, in 1916 (A.D) another British Egyptologist, Alan Gardiner, regarded the indicated signs as letter signs stemming from Egyptian hieroglyphics. He distinguished a group of four previously unknown signs present in inscriptions from Serabit. He considered them to be *characters* used for writing words down in the Canaanite language⁷. The first word to be deciphered was *Baalat* – ‘Lady’. Gardiner regarded it to be the Semitic (Canaanite) equivalent for Egyptian name Hathor. The starting point for Gardiner’s deliberations were inscriptions on a small stone sculpture of Sphinx, on which one inscription was engraved with Egyptian hieroglyphics and the other in a previously unknown system of writing. The Egyptian Hieroglyphic inscription did not pose any problems because it was easy to read: *the Beloved Hathor, The Lady of Turquoise*. Gardiner came to the conclusion that signs of non-hieroglyphic inscription had the value of letters and were used to write down the Semitic language. He read them in the direction from left to right, i.e. reversely to the common Semitic alphabet. The indicated direction of reading seemed to be appropriate which provided a possibility to read the inscription in a logical way.

Figure 1 presents the drawings of two Semitic inscriptions from Serabit al-Chadim, which underwent the research analysis by Gardiner in the first place. I included the group of four signs in the red framework indicating an alphabetical script of the name of the goddess Baalat. They may be regarded as characters and the phonetic value could be assigned to them. Such was Gardiner’s assumption. The indicated signs represent: a *house* (a fairly regular quadrilateral), *an eye*, *a horn of an ox* and *a cross*. *The cross* is not clearly visible on Inscription I. Gardiner assumed that the principle of acrophony, which appeared in later forms of Semitic alphabets (the First Millenium), was applicable in this form of script. The indicated principle is based on the fact that the phonetic value of a given character is the first sound of its name. For example: bêth (a ‘house’) is a phonetic value of the letter b; ‘ayin (an ‘eye’) = sound [Hebrew א]. Another important observation was the fact that only consonant signs were noted down in the indicated inscriptions. In other words, at the beginning of the Semitic alphabet only letters to mark consonants were introduced. This is how the alphabet of the *abgad* type was born. It functioned continuously until the Greeks introduced letters representing vowels adapting Canaanite alphabetical script to write down their own language. In this way they improved the alphabet and further simplified its rules⁸.

Figure I of illustration 1 draws attention to the third sign (from the left), very similar in its shape to the Egyptian hieroglyph (Fig. 2.I.)

⁷ A. Gardiner, *The Egyptian Origin of the Semitic Alphabet*, “Journal of Egyptian Archaeology” 3; 1916, pp. 1-16.

⁸ J. Naveh, *Some Considerationson the Ostracon from izbet Sarta*, „Israel Exploration Journal “ 1978, vol. 28, 1-2, pp. 31-35.

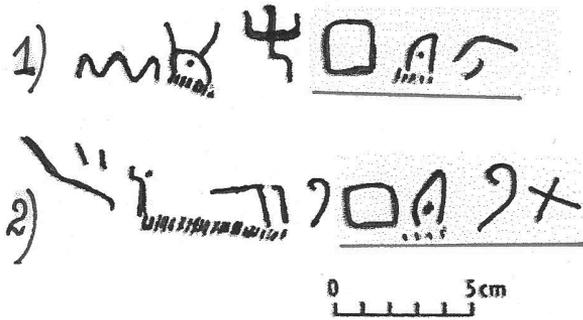


Fig. 1. The inscription containing the name *Ba'alat*. m-ʔ-h-(b) b-ʿ-l-[t] = *beloved Baalat*.

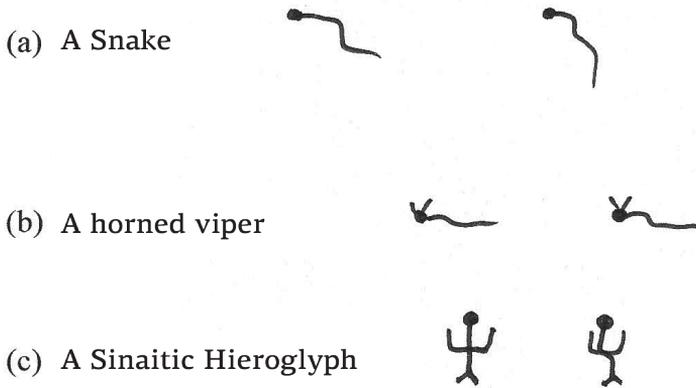


Fig. 2.

It is called the *Sinaitic Hieroglyph* as it is found only in Egyptian scripts on the Sinai Peninsula and only in the Period of the Middle Kingdom. It depicts a man with his elbows bent and his arms raised. It functions as a logogram in the indicated inscriptions. It constitutes one whole word and it is not only a component of a larger part. It most certainly denoted a *manager*, and was commonly used in Egyptian scripts from Serabit al-Khadim going back to the time of the XII and XIII dynasties. Unfortunately, its Egyptian phonetic value is unknown. The hieroglyph did not appear in other parts of Egypt and in the period of the New Kingdom it was also sporadically used on Sinai⁹. What significance was ascribed to it in the Semitic inscriptions from Serabit? What was its Semitic phonetic value? It could constitute a graphical reflection of the behaviour and the shout of the miners' *manager* in the Sinai mines, a word noted in the Bible as '*haj*' (*exclamation*: 'ah!'; 'hey'). Thus, according to the principle of acrophony, it denoted the sound h¹⁰.

It is obvious to pose a question of *who* and *when* placed the Semitic inscriptions in Serabit al-Khadim. The indicated question has been present in science since Gardiner read the

⁹ Actually, there is also an example of its use in inscription from Tell ad-Daba and another one from Wadi Gassus.

¹⁰ Np. hōy 'chi = oh, my brother! (Jer 22,18); see also: G.J. Hamilton, *The Origins of the west Semitic Alphabet in Egyptians Scripts*, Washington 2006, p. 84.

inscriptions. In recent years an interesting answer to the aforementioned question has been suggested by Orly Goldwasser but I will refer to it later in this article. The statement about the Semites from Canaan, working in a Sinai mine has been indisputable since the times of Gardiner. The proto-alphabetic inscriptions are legible through the language of those peoples. In the following years researchers believed that the *invention* of alphabet resulted from the clash between many peoples and cultures in the Egyptian melting pot. However, when we have a look at the situation of the workers from the Egyptian part of Sinai, we can rather see their certain isolation. There are only Egyptian scripts (hieroglyphic) and proto-alphabetic inscriptions of Canaanite Semites there. In other words, it seems to me that it was rather the opposite. The oldest form of the alphabet was born (was *invented*) in a certain ethnic and cultural isolation, under the strong influence of Egyptian writing. What did the indicated influence consist in? Was it only a graphic model, or was it a result of practice, i.e. was the inventor of the alphabet able to use the Egyptian writing in practice? There is no clear answer to that. From the technical point of view, Proto-Sinaitic inscriptions are of a much worse quality than the Egyptian hieroglyphic ones. One may have the impression that they were created by hands unskilled in the art of writing. Moreover, it is also hard to talk about calligraphy in the Semitic alphabetical writing in the following centuries! But, is there any other evidence that could suggest the *Egyptian illiteracy* of the ‘inventor’ of the alphabet? For example, the Proto-Sinaitic inscriptions do not have one fixed direction of writing. Some of them are written from right to left, some others from left to right but there are also inscriptions from top to bottom. Such discretion can be observed with other Semitic inscriptions, for example from Wadi al-Hôl, which will be discussed later. It seems to me that the *inventor* of the alphabet was to a greater extent visually inspired by Egyptian hieroglyphs and was less concerned about their phonetic or semantic values. However, it may not fully prove the ignorance of the Egyptian writing. Some Egyptian signs were mixed, used interchangeably or modified. It can be observed on the example of two hieroglyphs: a cobra [dž] (il. 2. 2) and a horned viper [f] (il. 2. 3) for the record of the n sound [*nachaš* = *snake*].

Not all Proto-Sinaitic characters were inspired by Egyptian scripts. Some of them originated from the world surrounding their *inventor*. The hand with fingers became a model for the character *k* – ‘kaf’ in the Canaanite writing. The *r* sound was written down by means of the character depicting the head, i.e. *roš*. The composite arch, the sign of which is missing from the Egyptian script, became the model for the š character – from its Canaanite name *ša-na-nu-ma*¹¹.

The circle from which the *inventor* of the alphabet came from, even though it did not have to be one person, has been somewhat limited by researchers in recent years. An interesting suggestion has been made by Orly Goldwasser¹². She believes that the indicated process should be connected with the environment of a man named Khebeded. In Proto-Sinaitic inscriptions, he is referred to as *the Brother of the Ruler of Retenu*. Retjenu (Retenu) is the Egyptian name for the Mediterranean coast extending from Gaza to Bikaa valley, and even further to northern Syria. It was an important region for Egypt constituting a buffer against the influx

¹¹ Hamilton, op. cit., p. 242.

¹² The researcher presented her view in a comprehensive and well-documented article in 2012: O. Goldwasser, *Out of the Mists Alphabet – Redrawing the „Brother of the Ruler of Retenu”, „Ägypten und Levante/Egypt and the Levant” 22, 2012, pp. 353-374.*

of Asian peoples and also because of a trade and a communication route passing through it. Khebeded was therefore a Canaanite, whose homeland maintained close relationship with Egypt during the Middle Kingdom. Khebeded has been depicted as a figure riding on a donkey with two accompanying pedestrians¹³ on the Sinai stele No. 112. The Canaanite wears a characteristic headgear, in shape resembling a mushroom cap. Khebeded's head is covered with an identical headwear on stele No. 92. The inscriptions on both steles were not made by a skilled Egyptian writer but rather by a Canaanite with little writing abilities. The signs are not regular and they are unevenly arranged, sometimes located too close to one another. Both presentations indicate that Khebeded took part in Egyptian expeditions to the mine in Serabit al-Khadim. Due to the fact that his name is present in Egyptian hieroglyphic inscriptions it may be assumed that he occupied an important position and was probably the head of the Canaanites working there. It is possible to put forward a hypothesis that it was someone from the surrounding of Khebeded who was the *inventor* of the alphabet. However, seeking the inventor in the person of Khebeded himself may be, in my opinion, a *far-fetched* hypothesis. The pieces of information on Khebeded refer to Sinaitic expeditions organised by Amenemhat III (stele No. 92 dating back to his 13th regnal year). Moreover, the context of the hieroglyphic inscriptions accompanying the Proto-Sinaitic ones provided a possibility to date the beginnings of that writing and thus the invention of the alphabet to the second half of the XIX century B.C., falling precisely on the times of the reign of Amenemhat III¹⁴.

3. The Inscriptions from Wadi al-Hôl

In 1993 (A.D.) John Darnell discovered two inscriptions on the limestone wall of Wadi al-Hôl near Luxor, on the road leading from ancient Thebes to Abydos, in which the shape of the characters was almost identical with the Proto-Sinaitic inscriptions. One of the scripts was made in the horizontal direction while the other was inscribed in the vertical direction (fig. 3. H; 3. W).

Thus, the use of the Semitic proto-alphabet was confirmed outside Sinai. Almost immediately after the discovery, there appeared a hypothesis indicating that the writings were older than the inscriptions coming from Serabit al-Khadim, and thus, constituted the oldest example of the proto-alphabetical usage¹⁵. Moreover, it suggested that it was in central Egypt that the alphabet was *invented*. The aforementioned hypothesis did not last for a very long time as it did not withstand the scientific criticism. Nowadays, the inscriptions from Wadi al-Hôl are dated back to the end of the Middle Kingdom – the first half of the 18th century B.C. (mainly the times of the 13th dynasty). It is evidenced by the Egyptian hieroglyphic inscriptions accompanying the two Semitic scripts. Reading the content of the inscription turns out to be problematic as well.

¹³ Ibid, p. 353 (the photograph taken and the drawing made by the author); it is noteworthy that there is no representation of any Egyptian riding a donkey in Sinai.

¹⁴ Dating of Proto-Sinaitic inscriptions by Gardiner and later by W.F. Albright was somewhat later – to the XVIIIth century B.C., the beginning of a New State see: A. Gardiner, *The Egyptian...*, op. cit., p. 14; W.F. Albright, *The Early Alphabetic inscription from Sinai and their Development*, "Bulletin of the American School of Oriental Research" 1948, 110, pp. 6 – 22.

¹⁵ On the subject: J.C. Darnell et al., *Two Early Alphabetic inscriptions from the wadi el-Hôl. new Evidence for the Origin of the Alphabet from the western Desert of Egypt*, "Annual of the American School of Oriental Research" 2005, 59.

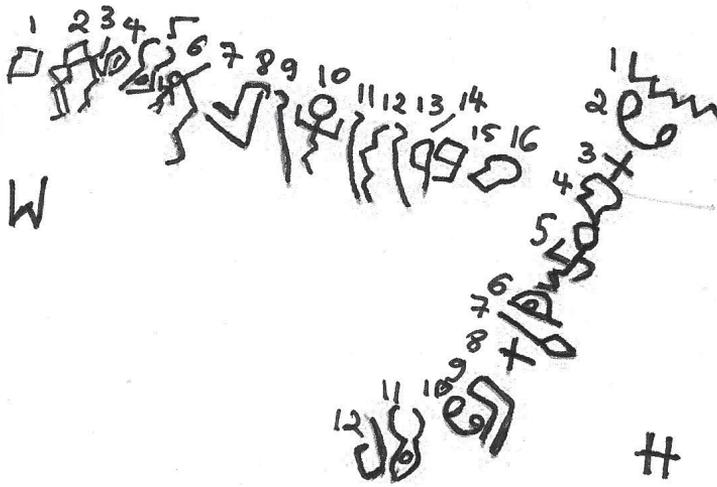


Fig. 3 The Inscriptions from Wadi al-Hôl

Even though, at the proverbial *first glance* the similarity between the Proto-Sinaitic inscriptions and the ones from Wadi al-Hôl is striking, after a more thorough examination there appear fundamental differences. It seems to me, from the technical point of view, that their *author* was even less skilled than the one from Sinai. I will consider only the characters which have attracted my special attention.

The first sign in the W inscription resembles the Egyptian two-syllable *mw* and the *m* character present in the Proto-Sinaitic writings. However, the second sign of this inscription (and the 11th) has not been confirmed on Sinai. It is a sign that comes from the combination of two uraei, being probably the character *š*, from the word *šimš* = *sun*. The indicated sign is located on one of two rock inscriptions (L – left), discovered in 2009 (A.D.) in Timna in Wadi Arava (in the Negev in Israel)¹⁶. Those inscriptions, coming from copper mines as well, have been dated widely back to the period of Late Bronze Age and included in the group of Proto-Canaanite inscriptions¹⁷.

The first three characters form the word *mšth* (*sacrificial feast*). The fourth character of the W inscription, although clearly resembling a mashroom, is a record of the *r* sound (it not only brings to mind the *head* but also the Semitic *hat* of Khebeded). The last two characters of the W inscription seem to be well readable as *'l* (*God*)¹⁸. Brian Colless suggested that the indicated inscription should be read as the information on the feast and sacrifice (from oxen) in honour of the goddess Anat¹⁹. Such meaning of the inscription may result from the content of Egyptian scripts informing about the sacrifice in commemoration of Hathor.

¹⁶ See: S.J. Wimmer, *A Proto-Sinaitic inscriptions Timna/israel: new Evidence on the Emergence of the Alphabet*, “Journal of Ancient Egyptian Interconnections”, vol. 2, No. 2, May 2010, p. 5.

¹⁷ B.E. Colles, *Proto-alphabetic inscriptions from the wadi Arabah*, “Antiquo Orientale: Cuadernos del Centro de Estudios de Historia del Antiquo Orientale”, vol. 8, 2010, p. 78.

¹⁸ In Proto-Sinaitic inscription the word El appears three times (No. 363, 377, 378). 19 B.E. Colles, op. cit., p. 91.

¹⁹ B.E. Colles, op. cit., p. 91.

Three characters of the W inscription: 6, 7, 8 (*'nth*) form the name of the Canaanite goddess, provided that character 7 is not read as w. There exists such a possibility.

The inscription H is more difficult to decipher. Reading it from the right (in compliance with the Semitic inscription) the first character is *r*, the second is *b*, in the shape known and popularised in Proto-Canaanite inscriptions and later ones (Phoenician and Old Hebrew). Certainly, the aforementioned juxtaposition of characters brings to mind an association with the word *rb* denoting *a manager, a leader*. The double occurrence of the character *h*, modelled on the *Sinaitic Hieroglyph* (7, 11) is noteworthy in the inscription. The question arises whether they should be read as a sound *h* or whether they play a different role in this case? There is no clear answer to the questions. They may be treated as determinants showing that the next word refers to the broadly understood category of *man*. Since such a procedure is known from hieroglyphic inscriptions in Sinai, it could have been employed in the case under discussion. Thus, the inscriptions from Wadi al-Hôl could have been affected by a stronger Egyptian influence than Proto-Sinaitic inscriptions but at the same time they are not fully alphabetical inscriptions.

4. Summing up

The aforementioned considerations lead to several conclusions. One is fundamental and concerns the place and time of the *invention* of the alphabet. The priority is still given to Proto-Sinaitic inscriptions and Serabit al-Khadim as the place of the indicated *invention*. Neither the inventions in Wadi al-Hôl nor in Wadi Arava could change it. Despite one hundred years of research into Proto-Sinaitic inscriptions (next year we will celebrate a centenary of Alan Gardiner's findings) more and more new possibilities of interpretation appear, which further facilitate the solution of the related problems. It is somewhat possible to personalise the circle which the inventor or inventors of the alphabet came from, specify the time of the invention (the reign, though long, of Amenmhat III). It is also possible to pose a hypothesis about the invention of the alphabet in the ethnic and cultural isolation. The aforesaid issue will be discussed in science for a long time to come. The findings in Wadi al-Hôl revealed that the Semitic alphabet was not only transferred to Canaan and further developed there but was also used in other parts of Egypt. As can be noticed on the basis of the indicated two inscriptions, Egypt exerted a strong impact on it. Further Canaanite development of alphabetical writing is evidenced by discoveries that took place some years ago in the south of Israel, which enrich a small group of Proto-Canaanite inscriptions. The already developed Phoenician and Old Hebrew alphabets are related to the majority of epigraphic findings.

One can only hope that the next few years will bring new discoveries confirming or modifying present views.

Egyptian Context of the Beginnings of the Alphabet Summary

The article presents the beginnings of alphabetic writing in Sinai (Serabit al-Chadim) in the context of the Egyptian hieroglyphic writing and the subsequent early alphabetic inscriptions from Wadi al-Hôl (Egypt) and Wadi Arava (Israel). In the light of the present state of research it can be concluded that the oldest alphabet (type: abgad) was established by Semites working

in the copper mines on the Sinai Peninsula under the rule of Egypt, probably in the nineteenth century BC. Egyptian hieroglyphs had direct impact on the Semitic alphabetic writing. The alphabetic inscriptions in the Wadi al-Hôl and Wadi Arava discovered in recent years turned out to be younger than the Sinaitic inscriptions and are another element in the early development of alphabetic writing.

Keywords: archaeology, hieroglyphs, alphabet, Egypt, Sinai Peninsula

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