



# CANAANITES READING HIEROGLYPHS\*

## Horus is Hathor? – The Invention of the Alphabet in Sinai

By Orly Goldwasser

This article is dedicated to the memory of Menakhem Shuval, a student at Tel Aviv University. Shuval wrote a Ph.D. thesis on local scarab production in Middle Bronze Age Canaan under the supervision of the late Pirhia Beck and myself. He concentrated on the definition of the local Canaanite scarab industry and collected hundreds of examples, which he divided into types of “specific Canaanite motifs.”<sup>1</sup> His sudden death in December 1995 left behind a very extensive, unfinished manuscript, which comprises hundreds of pages of texts and plates and which has never been published. Many recent publications have confirmed his conclusions. May he rest in peace.

### PART ONE: HORUS IS HATHOR?

An early, yet very common, combination of signs on Middle Bronze Age scarabs is  (Fig. 1). It is very frequently attested in Canaan and Byblos, but is rare in Egypt.<sup>2</sup> It does not appear in the Uronarti collection or any other dated Egyptian example, and is known from Tell el-Dab'a from two surface finds to date.<sup>3</sup> This motif was by and large explained by scholars as a combination of the hieroglyph of the Horus falcon and a crudely executed *ntr*  (R8) hieroglyph.<sup>4</sup>

Assessing the aggregate of hieroglyphic signs that appear on the Middle Bronze Age scarabs, it seems that the aggregate is built of signs which are connected either to the royal titles, royal names, or otherwise to good wish meanings.<sup>5</sup> Unlike other non-iconic scripts, in the hieroglyphic script, single *pictorial* icons, which are easy

to identify by the uninitiated as well, carry full meanings<sup>6</sup> such as “the king of Upper and Lower Egypt,” “life,” “good,” “stability,” “gold,” “unification,” “His Majesty,” “protection,” etc.; all these signs may have simultaneously carried the additional prestige value “Egyptian” for their users. One should remember that even in Egypt only a very small percentage of the population could read and write: the estimated range is 1–3%.<sup>8</sup> Yet probably every Egyptian, and many foreigners too, would have recognized these specific icons and would have understood their meaning. We can find the budding form of this usage on early scarabs.<sup>9</sup> A basic repertoire of Egyptian signs on scarabs is represented by the corpora of Uronarti and Kahun.<sup>10</sup> These local Egyptian corpora can clearly be shown to have borrowed their motifs from Egyptian Middle Kingdom jewelry, magic wands, coffins, and of course typical royal and pri-

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I am deeply indebted to Benjamin Sass for the fruitful discussions on the Protosinaïtic script and his many helpful comments and suggestions. Thanks are also due to Claus Jurman from the Institute of Egyptology of the University of Vienna, who very skillfully aided me in editing this article and made useful suggestions. Finally, I would like to thank Niv Allon from the Department of Bible Studies of the Hebrew University of Jerusalem for his contribution to the editorial work and to the reading of the Wadi el-Hôl inscriptions.

The designations of the hieroglyphic signs in this article follow the sign list in GARDINER 1957: 438–548.

<sup>1</sup> Beatrice Teissier mentioned his work writing “M. Shuval of Tel Aviv University is currently making a comparative study of Middle Bronze Age scarabs in order to deter-

mine which were Palestinian and which were Egyptian” (TEISSIER 1996: 15, n. 9).


<sup>2</sup> TUFNELL 1984: 118; BEN-TOR 1997: 179; MLINAR 2006: 214–218.

<sup>3</sup> BEN-TOR 1998: 159.

<sup>4</sup> TUFNELL 1984: 118; KEEL 1995: 172; BEN-TOR 1998: 159.

<sup>5</sup> For a recent elaborate discussion on this topic, see QUIRKE 2004.

<sup>6</sup> They are not *symbols* but are part of a writing system and thus have a stable signified in the language – they refer to a word or a combination of words.


<sup>7</sup> The *nh*  sign (S34) is one of the most popular Egyptian hieroglyphs on cylinder seals. It also appears as a symbol of blessing at royal courts (e.g., Alalakh: BECK 2002: 81). Its attraction lies in the option of presenting the abstract notion “life” in a single, concrete, *portable* icon.

<sup>8</sup> BAINES and EYRE 1983.

<sup>9</sup> Mainly with the floral “unification” motif, see WARD 1978.

<sup>10</sup> TUFNELL 1975.




Fig. 1 Canaanite scarabs with the motif  (after KEEL 2004: 88, figs. 57–60)

vate stelae. Yet the rich repertoire that makes its appearance during the Hyksos period in Tell el-Dab<sup>c</sup>a and Canaan must have made use of additional sources and a different semiotic tradition.<sup>11</sup>

One wonders whether Canaanites outside Egypt were exposed to genuine Egyptian inscriptions, besides the scarab repertoire. Should this have been the case, one should ask which genres of Egyptian inscriptions might have served as sources of influence,<sup>12</sup> and where the encounter might have taken place. Possible *loci* of encounter could have been royal and private inscriptions in Byblos<sup>13</sup> or the Eastern Delta – the fertile land which was always an eminent goal of Canaanite nomads and immigrants, and which during the late Middle Kingdom witnessed a back-and-forth movement of Canaanites in great numbers.<sup>14</sup> If we take the Hathor temple in Sinai and its inscriptions as an example of an Egyptian temple-site in

the Levant during the Middle Bronze Age (even if of unusual dimensions), we may observe that already a limited number of typical Middle Kingdom stelae and other inscriptions may be sufficient to yield all the Egyptian signs and symbols that can be identified on Canaanite scarabs.

From the life-long cultural studies of Othmar Keel and his school, it may be observed that the new iconographic aggregate on Middle Bronze Age scarabs, which surpasses the repertoire of original Egyptian topics, is comprised of images that have meaning and high priority within the Canaanite cultural sphere, such as the Goddess, her branch, her caprids, variations of the weather-god or his lion, the ruler, ruler and attendant, pairs of gods in entangled positions, god and worshiper, etc.<sup>15</sup>

It seems that Egyptian gods were incorporated into this productive and innovative Canaanite aggregate only if they carried a meaning for the Canaanite holder or beholder.<sup>16</sup> The rare occurrences of Ptah may point to his popularity in northern Egypt, and may hint at the possibility of a Ptah cult in Canaan, already in the Middle Bronze Age.<sup>17</sup> A dominant image of a Hathor-like goddess, even in her most “Egyptian” representations, was probably identified by the Canaanites with their own Goddess, as Silvia Schroer ingeniously showed.<sup>18</sup> One wonders, in this context: what was the meaning and the cultural appeal of the repetitive combination  for the Canaanite holder of the seal?

The falcon is a popular image in the scarab repertoire. It appears in two main variations:

- a. A falcon-headed human being.
- b. A bird-form falcon.

<sup>11</sup> On this tradition, see the various studies of Keel, e.g., KEEL 1989a. For the Tell el-Dab<sup>c</sup>a industry, see MLINAR 2004.

<sup>12</sup> KEEL 1995: 167–168.

<sup>13</sup> On Byblos and Ras Shamra/Ugarit as centers for the diffusion of Egyptian art (part of which may have reached Palestine), see BECK 2002: 66 and *passim*. For an inscription with Hathor *nbt Kbn*, “Mistress of Byblos,” from Byblos, see MONTET 1928: 35, fig. 6.

<sup>14</sup> Bietak has recently identified an Early Bronze Age temple of Asiatic type in the Delta, see BIETAK 2003; also BIETAK 1998.

<sup>15</sup> For a compelling example of such a loan, see KEEL 1995: 224; see also KEEL 1989a: *passim*. On Egyptian



motifs on Middle Bronze Age cylinder seals, see EDER 1995 and TEISSIER 1996.

<sup>16</sup> In her thinking on Canaanite art and culture, BECK devoted special attention to questions on the semiotic procedures and translations involved in the “copying” of Egyptian symbols by Canaanite/Syrian craftsmen, see BECK 2002.


<sup>17</sup> It was suggested that a temple of Ptah existed in Ashkelon in the Late Bronze Age, see HELCK 1971: 443; on Ptah on Middle Bronze Age scarabs, see KEEL 1989b: 286–291; KEEL 1995: 213–214 and 241–242; MLINAR 2001: 224–226. Ptah was very popular in the Sinai inscriptions of the Middle Bronze Age.

<sup>18</sup> SCHROER 1989.

Keel, in various publications, has strongly argued that these two icons had kept their Egyptian meaning. He interprets the falcon-headed human being as the Egyptian god Horus,<sup>19</sup> and not the Canaanite god Hauron as suggested previously by other scholars.<sup>20</sup> A detailed survey of the appearances of the human-headed Horus-like images in the Near East and of his Canaanite attributes leads Keel to the suggestion that Horus was identified for a long time in Syria and Canaan with the weather-god (Baal), and that it is this identification that triggered his appearance on large numbers of typical Canaanite scarabs.<sup>21</sup> The occurrences of the scarabs with the bird-form falcon or similar birds seem to be, in his opinion, variations on this topic.

This identification presents one difficulty, as it is not clear when and how the “switch” from Horus-Baal to Seth-Baal took place. King Nehesi of Avaris had pledged alliance to Seth.<sup>22</sup> Does this fact suggest that the weather-god was already identified with Seth in Avaris before the time of the “Great Hyksos”? A scarab lately discovered by Claude Doumet-Serhal at Sidon mentions , *Sth nb Tii*, “Seth, Lord of *Tii*.”<sup>23</sup> The name of the land *Tii* has the  classifier. The owner of the scarab carries a West Semitic name. Jean Yoyotte dates the scarab to the end of the 12<sup>th</sup> Dynasty.<sup>24</sup> From this new find one may conclude that Seth, probably identified with Baal, was worshiped in a region somewhere on the Lebanese coast as early as the end of the 12<sup>th</sup> Dynasty.<sup>25</sup> The solution to the Horus/Seth incongruity may be that Horus-Baal and Seth-Baal rep-

resent two competing repertoires. The Horus-Baal may have originated in what Keel would call *Volksreligion*<sup>26</sup> before the Hyksos period. The competing Seth-Baal identification may have been born or adopted in the court circles in the Delta and/or Byblos. The question that still remains unanswered is the “why” question, viz., why would some power holders choose to promote Seth’s position by identifying him with Baal, and make him their own primary god. Also, during the New Kingdom the maintenance of the Baal-Seth identification is mostly related to the royal circles. Schneider suggests that Baal was promoted to the god of the Egyptian kingship by Amenophis II.<sup>27</sup> The 19<sup>th</sup> Dynasty kept the closest relations with Seth. The famous 400-Year Stela not only presents Seth as a personal god of Ramesses II, but also reports an official “ascent” to the throne of Seth *ꜣ phty* (“great of power”), i.e., the inauguration of the kingship of Seth is regarded as an official royal event.<sup>28</sup> In the official repertoire of the New Kingdom, we find awe and reverence for Seth. Yet the picture in the *Volksreligion* might have been different. During the Hyksos times, Seth appears rarely on scarabs, and remains a rarity during the New Kingdom. He is also almost absent from the “Figurines Universe,” which is a window into the religious beliefs of the lower class,<sup>29</sup> and is not very common on private stelae of the New Kingdom, very much unlike less central Canaanite gods, such as the sphinx Hauron-Harmakhis.<sup>30</sup>

Going back to the beginning of our discussion, to the Horus  sign group, we shall try to reach

<sup>19</sup> In her article titled “Image and Identity: Egypt’s Eastern Neighbors, East Delta People and the Hyksos,” Dorothea Arnold suggests on the ground of various drawings in the pyramid of Lisht that the Asiatics who worked in Egypt in the pyramid project venerated the god Sokar (ARNOLD, DO. forthcoming).

<sup>20</sup> In his more recent book, Keel is somewhat more obscure in his identification and sees it as a Canaanite-Egyptian combination of the royal god Horus and the Canaanite royal god; see KEEL 1998: 41.

<sup>21</sup> KEEL 1989a: 244–277, esp. 276.

<sup>22</sup> BIETAK 1984; BIETAK 1990.

<sup>23</sup> LOFFET 2006.

<sup>24</sup> I am grateful to Professor Jean Yoyotte for the information concerning the date of the scarab. The scarab is entirely Egyptian in style and the perfect hieroglyphs show a rare high level of “Egyptianness.”

<sup>25</sup> Compare here the cylinder seal with Seth *nb* [...] dated by Collon (cited by Teissier) to the eighteenth century BCE; see TEISSIER 1996: 18–19 with fig. 77.

<sup>26</sup> KEEL 1989b: 291 and *passim*. The identification might have happened in the center of the repertoire (e.g., courts) and only then moved to the fringe *Volksreligion* domain. Horus does not appear in the literary tradition of the Ancient Near East, whereas the “Canaanite connections” of Hathor, for example, are well documented in literature and in material culture.

<sup>27</sup> SCHNEIDER 2003: 161.

<sup>28</sup> MONTET 1933; STADELMANN 1986.

<sup>29</sup> The fate of Seth in the Late Period may be the result of his “detachment” from popular beliefs.

<sup>30</sup> STADELMANN 1967: 76–88; ZIVIE-COCHE 2002: 55–78.

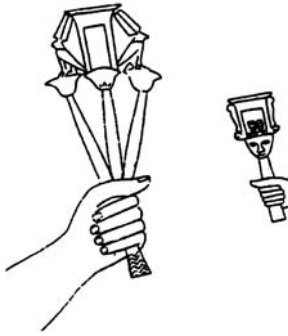


Fig. 2 Depiction of sistra from the Middle Kingdom, Meir (BLACKMAN 1915: pl. XV)

the meaning of the combination. It is important to note that the combination appears in a large array of variations.<sup>31</sup>

The common opinion that we have here a coupling of a Horus and a badly executed *ntr* sign is very unconvincing. It is hard to identify the semantic or cultural reason for the possible attachment of the Horus and the *ntr* sign. If we asked ourselves, what are the possible sources of borrowing for this popular combination, we would quickly find ourselves in a blind alley. The coupling of these two signs has hardly any Egyptian equivalent, and is generally very uncommon in Egyptian inscriptions.<sup>32</sup>

Another option, put forward by Keel,<sup>33</sup> who reads the combination as falcon sign and a *qnbt* 𓏏 “corner” sign (O38), has no meaning or parallels in Egyptian, and the falcon (or the *qnbt* hieroglyph) is mostly placed in the wrong direction from the point of view of correct hieroglyphic writing.

In a chapter of his thesis, dated 18.4.94, Menakhem Shuval offered a new direction. Basing his conclusions on comparisons to scenes from Meir, which show a combination of motifs frequent on Canaanite scarabs – Hathor heads,



Fig. 3 A scarab from Megiddo (LOUD 1948: pl. 150, no. 104)

shrines, and falcons (Fig. 2) – he suggests seeing in our combination a “Canaanite representation of the name of Hathor.”

He correctly compares the frequent appearance of the 𓏏 in a shrine-like motif to a green jasper scarab from Megiddo (Fig. 3), in which the shrine houses a branch or tree, a clear symbol of the Canaanite Goddess. Shuval ends his discussion by suggesting that the 𓏏 combination may be a Canaanite variant of the name of the goddess Hathor, suggesting Byblos as the source of influence.

#### In the eyes of the (Canaanite) beholder?

The spelling of the name Hathor, the female Goddess *par excellence*, the goddess of love, music, and turquoise, is something of a surprise for the uninitiated, even today. The *iconic* values of the signs involved in the writing of her name have no inherent feminine semantic value. They consist of a square and a falcon inside the square. Within the big square there is another little square in the corner (𓏏) (O10).<sup>34</sup> The initiated knows that the square is a building or enclosure which carries the phonetic value *hwt*, but also the *iconic* meaning “residence.” The falcon stands for the phonetic value *hr*, but also retains its *iconic* meaning of the “divine falcon.” Thus, Hathor, the divine mother of Horus, is metaphorically named

<sup>31</sup> Christa Mlinar is preparing a catalogue of all occurrences; see MLINAR forthcoming, Chapter V.

<sup>32</sup> In the Egyptian material, the only prominent place where the 𓏏 combination repeatedly appears during this period is the Horus name of Sesostris III (BECKERATH 1999: 85). An observer with a limited knowledge of Egyptian may couple incorrectly the falcon and the *ntr*, “god,” sign, which begins the Horus name 𓏏𓏏𓏏, whereas the falcon is in reality only the antecedent of the first royal name and thus a constant, while the fol-


lowing signs may change *ad infinitum*. Another theoretical and very unfeasible suggestion would be that the combination means Horus + *ntr* as [DIVINE] classifier. Such a reading would require a very advanced knowledge of the hieroglyphic system, and is very rare even in Egypt. For this classifier, see recently GOLDWASSER 2006: 270–274.

<sup>33</sup> KEEL 1995: 172.

<sup>34</sup> On the meaning of the 𓏏 hieroglyph, see ATZLER 1972: 17–44 and BIETAK 1979: 141.



“the Residence of Horus.” In Figs. 4–6 below, we see a collection of variations of writing of the name “Hathor” in Egyptian inscriptions from Egypt and Sinai:

The collection of examples in Figs. 4, 5 and 6 is by no means comprehensive, and contains material from only a few sources. Yet even within this rather limited corpus the variations are striking. The name of the goddess Hathor can be written with the bird standing *outside* the square, with an additional phonetic complement *t* Δ (X1) within the square, and the “corner” on the side of the square has no real fixed position and may “travel” around within the square. In the example of Fig. 5c, the bird is replaced by the icon  (D2,

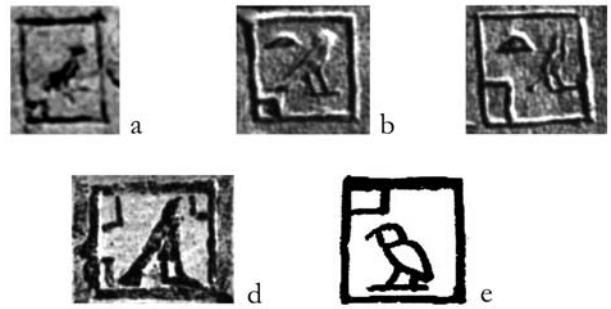


Fig. 4 Writings of Hathor from Egypt (private stelae from Giza, Naga ed-Der, and of unknown provenance, Old Kingdom and First Intermediate Period) (a: LUTZ 1927: pl. 20, no. 38; b–d: *ibid.*: pl. 15, no. 28; e: BUDGE 1913: pl. 46, no. 318)

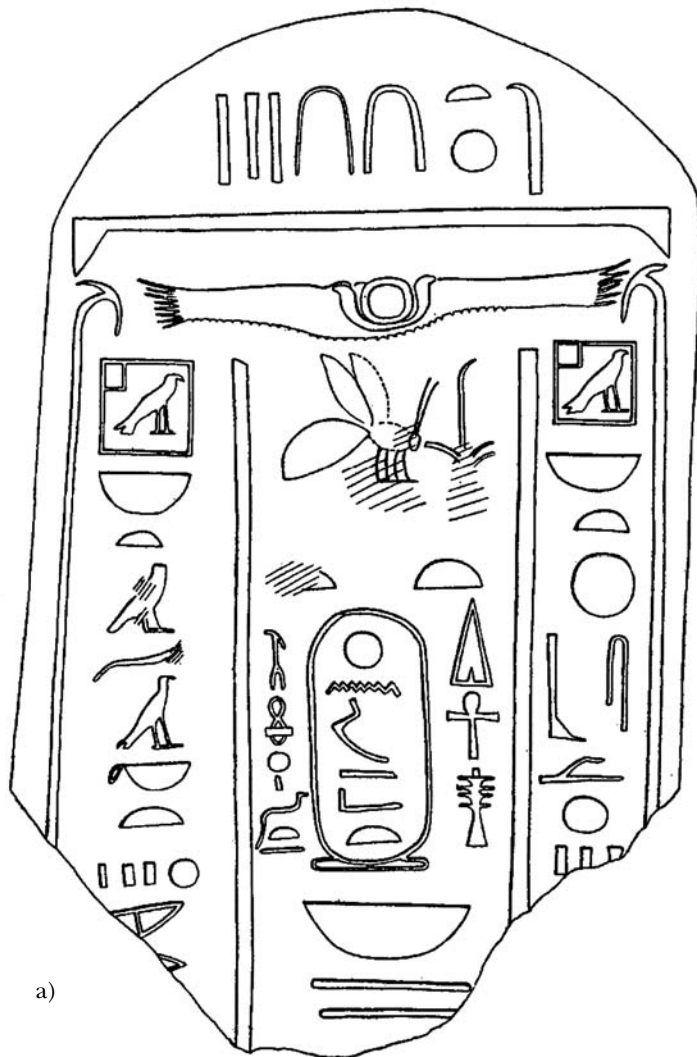


Fig. 5 Middle Kingdom examples of the writing of Hathor from Sinai (a: *Sinai I*: pl. XLIV, no. 102, e. face; b: *ibid.*: pl. XXXVI, no. 118, l. 2; c: *ibid.*: pl. XXII, no. 80, left side, l. 3; d: *ibid.*: pl. XVI, no. 47, col. 2)

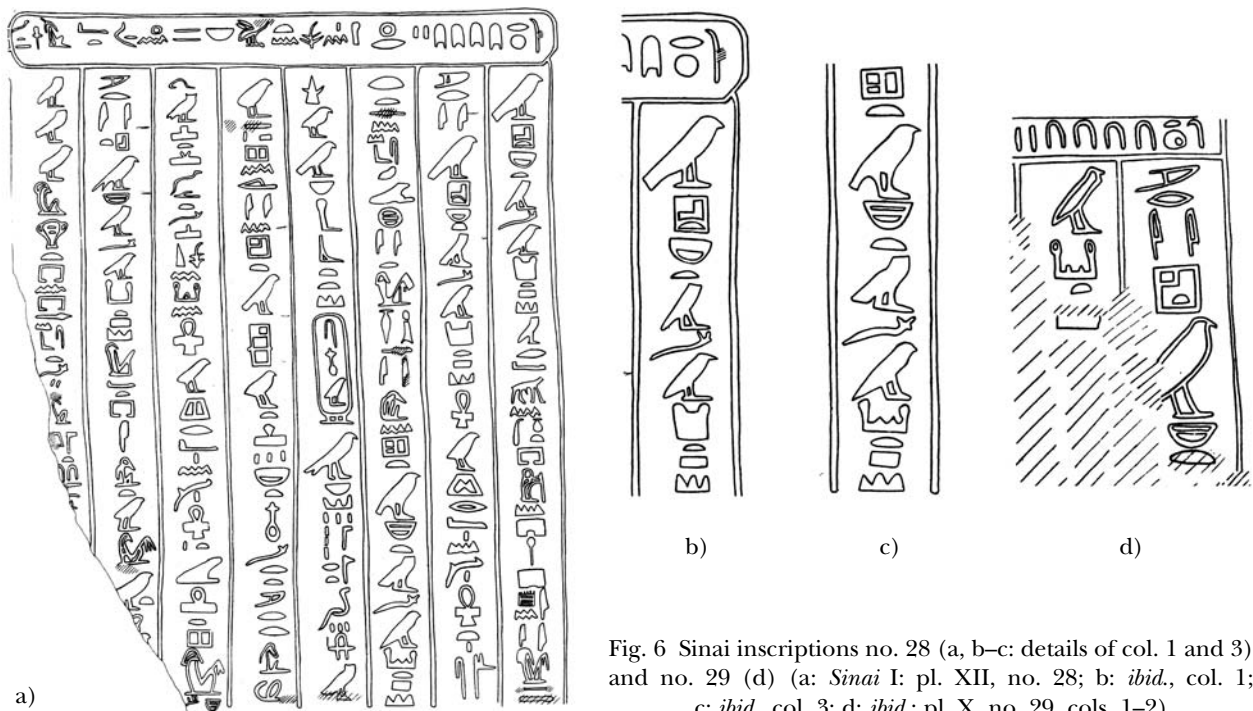









Fig. 6 Sinai inscriptions no. 28 (a, b–c: details of col. 1 and 3) and no. 29 (d) (a: *Sinai I*: pl. XII, no. 28; b: *ibid.*, col. 1; c: *ibid.*, col. 3; d: *ibid.*: pl. X, no. 29, cols. 1–2)


standing outside the shrine) that also carries the phonetic value *hr*, and the name of the goddess takes as classifier the icon , “cobra,” (I12) a classifier of female goddesses from the Old Kingdom on.<sup>35</sup> In Fig. 5d, a different building (reversed Serekh building?) replaces the original  sign (O6). The Horus is now within the building, but in the company of the cobra classifier and the epithet of the goddess *nbt mfk3t*, “The Mistress of Turquoise.”

We can postulate that owing to the clear iconic value of the signs creating the name of Hathor, and their surprising mobility, the uninitiated could have easily learned to recognize the name of the important goddess. Yet lacking the understanding and religious background of the hieroglyphic system, such an observer might have seen in the name *three (or four) separate elements*:

1. A Horus falcon  (G5) or a generic “bird” (see also Fig. 7a–b).
2. A small half-square sign  (O38a) that may appear in different places (and sometimes also a “half circle”).
3. A frame .

The fact that the corner is mobile and that the bird can “step out” of the square may have enhanced the feeling of three separate elements. The “half square” may be understood as a free element that could be put in different positions and locations, or not be there at all (e.g., Fig. 5b above). The *t*  examples may have contributed to the location of the “half square” behind the bird’s back. The square frame can be easily dispensed with, especially when an alternative “frame” is created in many cases by other design elements such as the “shrine” motif.<sup>36</sup>

On an 18<sup>th</sup> Dynasty sistrum from Deir el-Bahari the *hwt*  hieroglyph is exchanged for a different building, a typical shrine (Fig. 8).

However, in this example, unlike in the Canaanite versions, the Egyptian artist creates a meaningful iconic variation as he understands the hieroglyphic principle, recognizes the *hwt* as an architectural element, and then toys with the icons by exchanging the  hieroglyph, which may represent the plan of a building (the little half square could represent a doorway at the side), with the side view of another building, a shrine. On the same sistrum, we see two adjacent

<sup>35</sup> SHALOMI-HEN 2006: 151.

<sup>36</sup> E.g., PETRIE 1917: pl. XI, nos. 611–612; BEN-TOR 1997:

178, 5. For a comprehensive study on this motif, see MLINAR forthcoming.

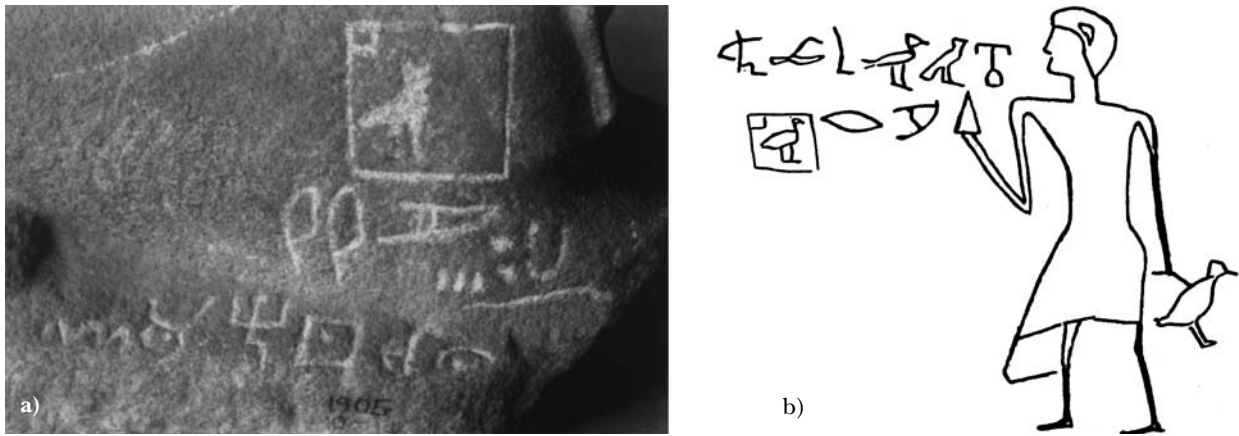





Fig. 7 Hathor written with owl or duck; a: sphinx with bilingual inscription from the temple; b: graffito from Rod el-<sup>c</sup>Aîr (a: BRIQUEL-CHATONNET 1998: 57, fig. 45 [after a photography by F. Le Saout]; b: *Sinai I*: pl. XCIII, no. 507)

falcons which are strongly reminiscent of similar compositions on scarabs.

An interesting comparison can be observed in Ptolemaic texts from the Hathor temple at Dendera:<sup>37</sup>

The word “Hathor” is mostly written in the texts in the prototypical way (Fig. 9a). Yet in example b the scribe exchanges the Horus bird with the hieroglyph *hr* , “face,” which should be read here *only as a phonetic signifier* – the iconic meaning “face” should be discarded. In the last example he takes the next step into the realm of “visual poetics,”<sup>38</sup> as he changes the prototypical generic *hr*  icon into the *specific* face of Hathor, thus referring not only to the phonetic *hr*, but also to the full signified *Hwt-hr*, which would otherwise be attained only by adding the *hwt*  sign. How-

ever, this kind of writing does not create a real redundant information structure, but adds the idea of “Hathor in her shrine,” already hinted at by the 18<sup>th</sup> Dynasty artist who created the sistrum discussed above.

We cannot conclude the discussion without mentioning a small number of examples in which the “half square” sign looks like the Egyptian *ntr* hieroglyph.<sup>39</sup> I would suggest seeing in these rare versions a sort of hypercorrection of a school that recognizes the non-existence of the half-square sign in the Egyptian decorum.<sup>40</sup> In all examples of this particular variation, the other hieroglyphs forming part of the decoration of the scarabs are relatively clear and well executed, and adhere to the minimal requirements of what seems to be the “Canaanite decorum” of hieroglyphs.



Fig. 8 Hathor sistrum of the 18<sup>th</sup> Dynasty (SCHROER 1989: 166, fig. 0150)

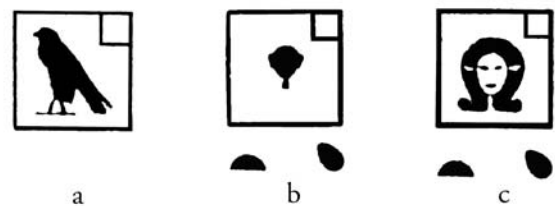


Fig. 9 Writings of “Hathor” in the temple of Dendera (a: CHASSINAT and DAUMAS 1972: 174, l. 1; b: *ibid.*: 174, l. 9; c: *ibid.*: 174, l. 11)

<sup>37</sup> I am grateful to Claus Jurman for calling my attention to this text.

<sup>38</sup> See GOLDWASSER 1995: 60–62 and *passim*.

<sup>39</sup> E.g., PETRIE 1917: pl. XI, nos. 615, 617–618; KEEL 1997:

383, no. 820. Another possible example is suggested by Shuval, an unusually big (but broken) scarab from Byblos, see DUNANT 1950: pl. CCI, no. 12087.

<sup>40</sup> See also BEN-TOR 1998: 159.



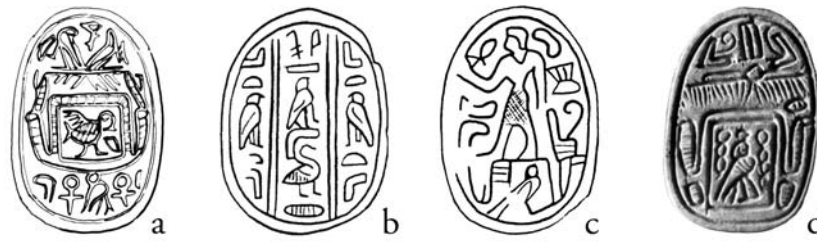


Fig. 10 Scarabs from Tell el-Ajjul (a–b), from the market (Jerusalem) (c), and from Qatna (d) (a: after GIVEON 1985: 67, no. 21/L.1061 with fig.; b: TUFNELL 1984: 277, pl. IX, no. 1470; c: after KEEL 1980: 261, fig. 64; d: AL-MAQDISSI 2001: 152, fig. 7)

Going back to Shuval, he went one step further, suggesting that “the wide-spread occurrence of falcon and falcon-like birds in the scarab iconography of the Middle Bronze Age in Canaan may refer, at least in a large number of cases, to the signified ‘Hathor’ and not to Horus, and thus may be seen as a part of the widespread cult of the ‘Goddess’ in Canaan,<sup>41</sup> whoever she was.”

What did the Canaanites mean when they drew a “Horus” bird – Horus or Hathor? For the Canaanites, the Egyptian rules of the script were irrelevant and of no interest. The dividing line between a developed script system and a symbolic system (that may use the very same signs) is the adherence of a script to a repetitive *closed* aggregate of signs. For the script to function successfully, these signs should be as repetitive as possible, as Sethe ingeniously stated already in 1935: “In der ägyptischen Hieroglyphenschrift herrscht, wo wir sie kennen lernen, d.h. zu Beginn der geschichtlichen Zeit, schon ganz allgemein die festgeprägte Form des Begriffszeichens, die das Kennzeichen einer wirklichen Bilderschrift im Unterschied zu der primitiven Bildverwendung der schriftlosen Völker bildet. Jedes einzelne Element der Rede wird durch ein isoliert dastehendes Bild ausgedrückt, das seine Form, seinen Tapus [sic! read: Typus], unter allen Umständen, ohne jede Rücksicht auf den Zusammenhang behält.”<sup>42</sup>

Every important entity in the Canaanite religious world had a set of symbols belonging to it, besides its full pictorial representation. The Canaanite Goddess had, besides her pictorial representations, a set of symbols intimately connected with her. Some of the symbols are synecdochal representations (*pars pro toto* – pubic triangle for the whole Goddess) and some metonymic, such as the twig and the dove,<sup>43</sup> which were closely related to her.<sup>44</sup>

The same logic of signification may have been employed by the Canaanites in reaction to the icons involved in the spelling of Hathor’s name. They are not iconic signifiers that should lead the reader to the *phonetic* signifiers *hwt* and *hr*, but “*free icons*” – a square, a bird, and a little corner sign that “belong” to the Goddess. Thus, very frequently the bird is not exactly a falcon, but rather an owl or a duck (see Fig. 7). In one example from Tell el-Ajjul (Fig. 10a), it actually looks like a fledgling duck.

On this last scarab, in front of the duck-bird, there is a sign that is reminiscent of the *t*. The *hwt* shrine has turned into a floating shrine on a cobra-boat (a “remnant” of the cobra classifier?). A Horus bird appears below with *nh* signs and the “corner” sign. In the other examples (Fig. 10b–d) we may find an open square, a stool-like item (*h-d-m*), or a shrine.<sup>45</sup> The corner may “travel around” freely, be repeated or omit-

<sup>41</sup> Schroer concludes that the name of the Goddess remains uncertain (SCHROER 1989: 196–197). Hathor is called in Sinai “Baalat”.

<sup>42</sup> SETHE 1935: 12. See detailed discussion in GOLDWASSER 1995.

<sup>43</sup> See ZIFFER 1998: 33\*–88\*.

<sup>44</sup> Another alluring symbol of the Goddess is the suckling

cow; see, e.g., KEEL and UEHLINGER 1998: 40, fig. 31a, and lately ORNAN 2005: 160–163 with bibliography. This image is a logogram in the Egyptian hieroglyphic script with the reading *ʔms*, “to show solicitude,” see GOLDWASSER 2005: 105–106.

<sup>45</sup> All the examples above were listed by Shuval.





Fig. 11 Free-moving “corner” symbols of Hathor on scarabs  
(a–b: after KEEL 1995: 201, figs. 376–377; c: *ibid.*: 199, fig. 371)



Fig. 12 New examples of “Hathor-scarabs”  
(a–c: after KEEL 2004: 90, figs. 65–67)

ted. All three signs together, or only two of them, or even one, may refer in a symbolic way to the Goddess. Indeed, in many Middle Bronze Age scarabs we find not only a representation of the Horus bird by itself, but also “corner” signs as part of the design or the hieroglyphic or “pseudo-hieroglyphic” aggregates of signs (Fig. 11).

It is to Menakhem Shuval that credit must be given for the pioneering insight and originality that showed us this otherwise hidden facet of Egyptian-Canaanite cultural contact. It is only due to his untimely death that our debt to him has gone unacknowledged until now.

### Postscript

When this article was in preparation, I received the volume “Scarabs of the Second Millennium BC from Egypt, Nubia, Crete and the Levant:

Chronological and Historical Implications,”<sup>46</sup> which contains an article by Othmar Keel on Canaanite motifs on Middle Bronze Age scarabs.

*Inter alia*, he publishes three scarabs from the collection of the Department of Biblical Studies of the University of Fribourg (Fig. 12). These scarabs prove unequivocally that Shuval’s theory is indeed correct. Keel does not fail to perceive the importance of these new examples and writes “This composition reminds the spectator of the traditional Egyptian way of writing the name of the goddess Hathor . . . The falcon with the angle on the B2-head group is probably best understood as a *debased* (my italics) form of the name of Hathor.”<sup>47</sup>

### EXCURSUS – SINAI INSCRIPTION 28

An extreme and unusual set of examples of the writing of the word *Hwt-hr* comes from Sinai inscription 28 (Fig. 6a–c), which dates to year 42 of Amenemhat III. This rock-carved inscription from Wadi Maghârah in Sinai is one of the rare inscriptions that contain a grammatical mistake in Egyptian: the indirect object *n Hwt-hr* (col. 5) precedes the direct object.<sup>48</sup> The hieroglyphs of the inscription are very awkward, they vary in size and order, and hardly any hieroglyph appears in the same shape twice. Some hieroglyphs are unidentifiable, e.g., the sign after the word “Hathor” in column 5.<sup>49</sup>

The inscription contains several occurrences of the name of the goddess *Hwt-hr*. Two of them have been set apart for special discussion by us in Fig. 6b–c.

The first example (Fig. 6b) from col. 1 of the inscription presents an oversized Horus bird standing *above* and outside the *hwt* sign.<sup>50</sup> The *hwt* sign

<sup>46</sup> BIETAK and CZERNY 2004.

<sup>47</sup> KEEL 2004: 89.

<sup>48</sup> Noted in *Sinai* II: 69, n. g. See also discussion below, p. 144.

<sup>49</sup> The text is written in the “expedition paleographical dialect,” see below, p. 132, n. 60, and p. 143–144.

<sup>50</sup> Compare here an inscription from Faras, see KARKOWSKI 1981: 78–80.

has become in this case a small square, with a corner in a detached position (as on the scarabs!) and with a relatively big accompanying *t* sign. Almost the same writing is repeated in column 2.

Fig. 6c presents another variation. In this case, the *hwt* appears as a square with three squares inside, which are of uneven form. The *t* appears outside the *hwt* and the big Horus bird appears at the end of the combination.

In these examples, the writer plays freely on the theme *frame + elements inside or outside the frame* (the “corner” sign appears in a correct position just once), while a very big, dominant Horus is always hovering above independently, overriding the small *hwt*.

There is good reason to assume that the writers of this inscription may have been Canaanites with a limited knowledge of Egyptian and hieroglyphs, yet were able to write by themselves. The inscription is made of simple short phrases. The hieroglyphs show the same concepts that were operative in the scarabs of the Middle Bronze Age. The elements work separately: the “corner” is detached from the *hwt* and the Horus is strongly visually conceptualized as the dominant element in the name of Hathor. It is easy to detect here an attitude to the signs that is similar to that which we see on the scarabs: the primacy of Horus, his clear detachment from the *hwt* sign, and the free-floating half corner.

#### PART TWO – CANAANITES READING HIEROGLYPHS – THE INVENTION OF THE ALPHABET IN SINAI

The imaginative “Canaanite reading” of Egyptian hieroglyphs, manifested in the Canaanite scarab production and to some extent in Sinai inscription 28 (Fig. 6a–c), was carried even further. In an experimental and highly creative move, the attitude described in Part I led to one of the greatest inventions in the history of civilization – the invention of what will be later called the “Alphabetic Script.”

The “Canaanite reading” is characterized by:

1. An idiosyncratic Canaanite identification (i.e., according to a Canaanite interpretation) of an

*iconic* meaning of graphemes in the hieroglyphic script.

2. Use of the loaned grapheme in a “free” way, in a completely different context, and in order to refer to referents in the Canaanite culture or language, with no consideration of the rules of the original Egyptian script.

In the “Canaanite reading” procedure which was exemplified in the first part of this article, in the case of *Hwt-hr*, a complex Egyptian hieroglyphic structure, which obtains meaning by the assignment of Egyptian iconic and/or Egyptian phonetic signifieds to iconic signifiers, is put aside. Instead, the parts of the sign are recycled as independent signs and are read anew separately. The Horus bird, the shrine and the “corner” signs become free, unbound elements. They retain their iconic meanings – shrine or square, Horus and corner – and accordingly, they occur in compositions referring to their newly assigned iconic meanings. However, in many cases they are activated at the same time as symbols – each of them (not only the full combination) may refer metonymically to the original *whole* – Hathor or the Goddess.

Other Egyptian signs on Canaanite scarabs may have referred to their iconic meanings alone and not to the Egyptian phonetic signifier/signified prescribed by the hieroglyphic script system. Graphemes that make part of the so-called  $\zeta$ -*n*-*r*- $\zeta$  group<sup>51</sup> (see, e.g., Fig. 13<sup>52</sup>) are usually identified by scholars as degenerate imitations of Egyptian signs. These signs carry, in *Egyptian*, meanings such

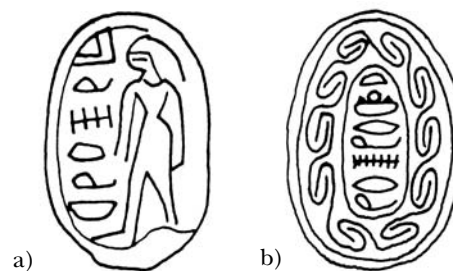














Fig. 13 Examples of  $\zeta$ -*n*-*r*- $\zeta$  scarabs from Tell el-Ajjul (a) and Jericho (b) (a: after KEEL 1997: 311, no. 615; b: SCANDONE MATTHIAE 2004: 196, fig. 2.7)

<sup>51</sup> On this type of scarabs, see the recent monograph by Richards 2001.

<sup>52</sup> In Fig. 13 the water sign  $\sim\sim\sim$  (N35) is represented by the simplified versions  $\text{HHH}$ ,  $\text{HHHH}$  (as with many other scarabs and small stelae of this period).

as  (D36 = icon – forearm), mono-consonant *ʕ*,  (D37 = icon – hand with bread offering), phonetic value *rdi*, meaning “to give,”  (N35 = icon – water) mono-consonant *n*,  (X1 = icon – bread), mono-consonant *t*, or  (D21 = icon – mouth), mono-consonant *r*.

However, in “Canaanite reading” these signs might have acquired a purely iconic reading, and thus a different meaning. The hieroglyphs  and  would mean “giving an offering,” the  would mean simply “water” or “drink.” The various signs that look like uneven  or  may refer literally to “bread,” “cake,” or the like. Thus, this little “inscriptions” may have acquired meaning for the uninitiated user in daily life and especially in the grave, where most scarabs were found.<sup>53</sup> Some other signs may have belonged to the pictorial *koine* of the region, making their way not only through Egyptian hieroglyphic inscriptions, but also through non-Egyptian media such as the cylinder seals of the 2<sup>nd</sup> millennium.<sup>54</sup> In cases such as *ʕnh*  (S34) and *nfr*  (F35), the signs may have retained their original Egyptian meaning, yet not necessarily the correct or complete Egyptian *phonetic* reading. In such cases, the beholder may have identified the “meaning” of the sign, but may have translated it to his or her own language.<sup>55</sup>

In the last examples above, we have already postulated the existence of Egyptian hieroglyphs (signifiers) on scarabs that carry signifieds other than their original, Egyptian-bound signifieds. The road to the reconstruction of the invention of the alphabet is now clear, once an uninitiated


eye has released the Egyptian graphemes from the bonds of a script system into being free iconic signs that may acquire new “names” or meanings in a different language or languages.

### The Protosinaitic script – a short introduction<sup>56</sup>

The regnal years of Amenemhat III and IV were distinguished by the attention and effort the two kings invested in building up the Delta and strengthening Egypt’s relations with the Canaanite world. Expensive royal gifts were sent to Byblos,<sup>57</sup> 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 *Hwt-wʕrt* (Avaris) in greater numbers, probably with the blessings of the Egyptian kings.<sup>58</sup>

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.<sup>59</sup> 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 Egyptian state 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

<sup>53</sup> Many *ʕ-n-r-ʕ* combinations include the *hṯp*  “offering-table” (R4) hieroglyph among the other signs; see, e.g., Fig. 13b. For a discussion on the origin of the *hṯp* sign on the *ʕ-n-r-ʕ* scarabs, see BEN-TOR 1997: 175–176. This sign enhances the meaning “offering”. On the funerary use of scarabs in Egypt and especially in Canaan, see KEEL 1996: 120–121 and BEN-TOR 1997: 187–188.

<sup>54</sup> EDER 1995; TEISSIER 1996. In order to explain Egyptian motifs on Syrian cylinder seals and ivory inlays during the 18<sup>th</sup> and 17<sup>th</sup> centuries BCE, Bietak suggests movement of Canaanite artists from the Levant to Egypt and back, see BIETAK 1998.

<sup>55</sup> Also today the *ʕnh* sign is broadly identified in many parts of the world as an “Ancient Egyptian sign with a positive meaning,” yet hardly anyone knows the ancient *phonetic* value of the sign.

<sup>56</sup> Gardiner, Černý, and Peet published most of the

inscriptions in a publication, here cited as *Sinai* I–II. For a recent book about the temple, with excellent pictures, some new finds, and a history of research at the site, see VALBELLE and BONNET 1996.

<sup>57</sup> See LILYQUIST 1993.

<sup>58</sup> BIETAK 1996 and ARNOLD, DO. forthcoming, n. 36. Gardiner, Černý, and Peet suggested that the expeditions to the mines started from the Delta (*Sinai II*: 16). The pottery that was analyzed by Valbelle and Bonnet comes from the Delta and Canaan (oil-jars); in charge of the expeditions is an *imy-r t3-mḥw*, “overseer of Lower Egypt;” see VALBELLE and BONNET 1966: 57, 18.

<sup>59</sup> Not a few soldiers were able to read and write, even if only in a limited fashion, i.e., their knowledge of the hieroglyphs was restricted and they tended to mix hieratic and hieroglyphs; see DARNELL *et al.* 2005; HAMILTON 2006.

hieroglyphic writing. Yet some private inscriptions were probably written by lesser scribes or by individuals with limited scribal education, as some “mixed” inscriptions testify.<sup>60</sup> However, in contrast to desert road inscriptions in Egypt, which are comprised mainly of graffiti, the Sinai corpus, especially those texts originating in the temple area, was executed by professional hieroglyph writers.

The Middle Kingdom text corpus in the temple and its surroundings is of special interest. The inscriptions are highly informative and give an overview of the expeditions,<sup>61</sup> their members, and their activities. They point to a high level of involvement of the Egyptian state in the mining expeditions. Asiatics, probably of different social levels, are recorded as taking part in these expeditions. At least two expedition leaders openly stress their Asiatic origin, and the famous *Hb̄dd*, “brother of a *ḥq3 n R̄tnw*,” repeatedly appears in the inscriptions as part of the high-level official Egyptian team. Other Asiatics are mentioned on different occasions, and some soldiers appear with an Asiatic coiffure. One Asiatic can even be identified as holding a duckbill axe, a typically Asiatic weapon.<sup>62</sup> Some other members of the expeditions have names that are not Egyptian and may be Asiatic. Hundreds of donkeys are mentioned and one may assume that Canaanite donkey drivers and caravan leaders were part of the expeditions. The important group of translators may have included people of Asiatic origin. Nevertheless, it is difficult to assess what proportion of the mining power was Asiatic, and

whether these people had the same “free” status as the Asiatics recorded in the hieroglyphic inscriptions.<sup>63</sup>

Hieroglyphic inscriptions are also known from the roads to the temple and around the mines, and in Wadi Maghârah and Rod el-<sup>c</sup>Aîr. In Wadi Maghârah are found royal inscriptions from the Old Kingdom, which constitute very early evidence for mining activities at this site. However, the Old Kingdom inscriptions indicate a very different attitude toward the Asiatics. The king is constantly shown in the “Smiting the Asiatics” posture, which is emphatically absent from the Middle Kingdom repertoire in Sinai; the predominance of this posture stands in sharp contrast to the Asiatic-Egyptian coexistence during the late Middle Kingdom in this area.

The Protosinaïtic inscriptions form the largest collection of Protocanaanite inscriptions found to date. The large number of inscriptions is all the more impressive, given the scarcity of this sort of inscriptions at other sites. Only two one-line inscriptions have been discovered to date in Egypt, at Wadi el-Ḥôl, and none at any other site in Egypt, although many sites of rock-inscriptions and graffiti are well documented. The only other find, the heddle jack from Lahun, remains disputed.<sup>64</sup> In Canaan, the earliest dated find, the Lachish dagger,<sup>65</sup> belongs to the Middle Bronze Age IIB period, while other finds seem to follow at a very slow pace – only very short inscriptions containing a few lone signs are attested.

The only reasonable explanation for such a

<sup>60</sup> What may be called the “expedition script dialect” was first identified and studied (with a sign list) by ŽABA 1974. It appears at many desert roads and mining areas, such as Wadi Hammâmât (COUYAT and MONTET 1913; GOYON 1957), Wadi el-Hudi (FAKHRY 1952; SADEK 1980), the Hatnub quarries (ANTHES 1928), Nubia (HINTZE and REINEKE 1989) and Wadi el-Ḥôl (DARNELL 2002). At the last site, they appear together with the Protocanaanite inscriptions (see DARNELL 2003; DARNELL *et al.* 2005 and discussion below). On the character of this script dialect in general, see ALI 2002; DARNELL *et al.* 2005 with bibliography. For a comprehensive list of sites with graffiti in Egypt, see PEDEN 2001.

<sup>61</sup> On the expeditions, see SEYFRIED 1981: 153–237.

<sup>62</sup> BIETAK 1992: 33–35.

<sup>63</sup> On the Asiatics during the Middle Kingdom in Sinai, see ČERNÝ 1935, GARDINER 1961. The highest number of donkeys mentioned is 600 (*Sinai* 110). In Egypt, Asiatic

workers were involved in the tunneling of the Pyramid of Sesostri III; see ARNOLD, DI. 2002: 42–43, pls. 21c, 23a, b–d, 24–26. On the role of the Asiatics in Egypt during the Middle Kingdom, see SCHNEIDER 1998; 2003 and DARNELL *et al.* 2005: *passim*. See also AUFRÈRE 2002: 211. ALBRIGHT suggested the Protocanaanite inscriptions were written by Canaanite slaves working in the mines (ALBRIGHT 1966: 21, 138 [bottom]).

<sup>64</sup> The heddle is probably a Middle Kingdom find, yet no exact date can be provided; see discussion with bibliography in HAMILTON 2006: 330–331. Sass is of the opinion that “the signs do not resemble Proto-Canaanite letters of any date, let alone the earliest examples;” see SASS 1988: 104.

<sup>65</sup> Some scholars question the identity of the script on the dagger. SASS identifies only two signs as Protosinaïtic, see SASS 1988: 54. Hamilton has a different understanding of the signs, see HAMILTON 2006: 303–304.



“boom” in this kind of writing in Sinai is *that Sinai was the site of its invention*. I would like to return to the suggestion that the “alphabetic” script was born in Sinai. This suggestion was already put forward in the early period of Protocanaanite research, at the beginning of the 20<sup>th</sup> century, by Gardiner,<sup>66</sup> but was cast aside in favour of various other theories and options.<sup>67</sup> In his seminal monograph of 1988, Sass suggested Sinai and the Middle Kingdom to be the possible site and time of the invention of the “alphabetic” script. Yet, in a recent article, he proposes the New Kingdom (around 1300 BCE) as a possible date for the invention.<sup>68</sup> Recent years have witnessed the dramatic discovery of the Wadi el-Ḥôl inscriptions by Deborah and John Darnell. In recent publications, Darnell has stressed his view that the root of the invention should be looked for in the “mixed” expedition scripts, which recorded (mostly on desert roads) names and events in a script containing a mixture of hieroglyphs, cursive hieroglyphs, and hieratic signs in different degrees of *mélange*.<sup>69</sup>

In a new book on the Protocanaanite inscriptions, Gordon Hamilton<sup>70</sup> summarises his beliefs regarding the origin of the alphabet: the script was invented through the adoption of a mixture of Egyptian “scripts.” Some signs were taken from hieroglyphic prototypes, but others, in his opinion, were borrowed from purely hieratic forms. As some of his comparisons for the Protosinaïtic graphemes, mostly from hieratic,<sup>71</sup> lead him to postulate an invention date somewhere at the beginning of the 12<sup>th</sup> Dynasty, he had to suggest another site for the invention, as this date seems too early for Sinai. Hamilton finally cautiously suggests the Delta as the location of the invention. However, Avaris – Tell el-

Dab<sup>ca</sup>,<sup>72</sup> the flourishing Canaanite town, did not yet exist at the beginning of the 12<sup>th</sup> Dynasty, and there are no specific archaeological signs for settlements of Asiatics in significant numbers in this area that early.<sup>73</sup>

In his most recent discussion, John Darnell also assigns the Wadi el-Ḥôl inscriptions to the end of the 12<sup>th</sup> Dynasty. Yet as a result of what he analyses as the borrowing of prototypes from some early 12<sup>th</sup> Dynasty “cursive hieroglyphs” and hieratic signs in these short inscriptions,<sup>74</sup> he places the *invention* of the alphabet at the beginning of the 12<sup>th</sup> Dynasty. We shall discuss this dating in more detail below.

Some facts and suppositions about the Protosinaïtic corpus and its possible producers:

1. The writers show a low level of literacy of any kind. Letters vary in size, direction, and execution, sometimes in one and the same inscription (e.g., *Sinai* 358<sup>75</sup>).
2. The writers do not know how to read hieroglyphs.<sup>76</sup> Anybody who was even moderately acquainted with hieroglyphic reading rules would not have written or read in the “wrong” direction. Hamilton correctly describes the Protosinaïtic inscriptions as “anarchic by Egyptian standards.”<sup>77</sup> Thus, the inventors are only “beholders” or “users” of the hieroglyphs and by no means readers, and accordingly, the search for prototypes in hieratic papyri is methodologically wrong. Hieratic texts are a completely “sealed system” for the uninitiated beholder. The signs are much less iconic, and are difficult to identify.
3. As they did not know Egyptian, the inventors were not at all “distracted” by the mono-consonantal Egyptian option, which was well

<sup>66</sup> GARDINER 1916; see also below n. 161.

<sup>67</sup> For the history of research, see SASS 1988: 3–7; GIVEON 1982; LEMAIRE 2000.

<sup>68</sup> SASS 2004/2005, 2005.

<sup>69</sup> DARNELL 2003 and DARNELL *et al.* 2005. For a bibliography for what I have called the “expedition script dialect,” see above, n. 60.

<sup>70</sup> HAMILTON 2006.

<sup>71</sup> HAMILTON 2006: 271–272. For his linkage of the Protosinaïtic *bet* to early hieratic forms as his strongest indicator of a date at the beginning of the 12<sup>th</sup> Dynasty, see *ibid.*: 289–290.

<sup>72</sup> For the history of the site, see BIETAK 1996.

<sup>73</sup> For the early Middle Kingdom settlement, see CZERNY 1999.

<sup>74</sup> DARNELL *et al.* 2005.

<sup>75</sup> E.g., HAMILTON 2006: 357.

<sup>76</sup> Briquel-Chantonnet wonders why the “inventors” did not use the Egyptian mono-consonantal signs. BRIQUEL-CHANTONNET 1998: 58.

<sup>77</sup> HAMILTON 2006: 280 and 293. On p. 293, Hamilton describes the inscriptions as of “non-scribal quality, perhaps even amateurish.” Egyptian hieroglyphs should be read *against* the “face” of the signs (GARDINER 1957: 25–29). Indeed, sportive writings are known in Egyptian, but they are rare, and occur in sophisticated uses.

known and used also by the “lower echelon” of writers in Sinai for writing personal names.<sup>78</sup>

4. 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, i.e., they gave it a new *Canaanite phonetic reading* – *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 was retained, viz., *r*. The final meaning of the grapheme is only *r*.<sup>79</sup>

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 (e.g., school, temple), and there was no establishment that might have been interested in promoting this popular invention. Sanders correctly refers to the script as “written vernacular.”<sup>80</sup> It is not accidental that when the script is finally adopted by the establishment, the letters very quickly lose their last traces of iconicity. Schools, administrative institutions, and their scribes could afford to turn their back on iconicity in favour of a more cursive version, which finally eliminated the connection between the “name” of the letter and its form.

Canaanites that would have learned the new script informally during the late Middle Bronze Age and Late Bronze Age were probably far away from Sinai and Egypt (e.g., in Canaan). 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,<sup>81</sup> while some of the head signs in the Sinai inscriptions still retain traces of Egyptian coiffure.

As far as the texts are decipherable,<sup>82</sup> 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. This cultural self-consciousness may be related to the emerging cultural phenomenon of Canaanite “national identity,” manifested, for example, in the monumental statue from the early Hyksos period in Tell el-Dab<sup>a</sup> and in other finds from this period, including scarabs.<sup>83</sup>

<sup>78</sup> E.g., *Sinai* 92 (see Fig. 18).

<sup>79</sup> As a semiotic system, the newly invented script is much simpler than the hieroglyphic system. The same invariable semiotic procedure should be activated on every grapheme. Firstly comes the recognition of the icon, then the regeneration of its “name,” and then a reduction through the acrophonic measure. On the other hand, the hieroglyphic system always presents the reader with a plethora of semiotic processes that could be applied almost on each sign (logogram, phonogram [to be read or discarded as “phonetic complement”], or classifier, etc.).

<sup>80</sup> SANDERS 2004: 25 and *passim*.

<sup>81</sup> For a picture, see SASS 1988: 140.

<sup>82</sup> For the latest effort in this direction, see the series of articles by COLLESS (1990, 1991). For a translation attempt of the new inscriptions of Wadi el-Hôl, see WIMMER and WIMMER-DWEIKAT 2001. Neither HAMILTON 2006 nor DARNELL *et al.* 2005 attempt to translate the texts anew.

<sup>83</sup> On this topic, see ARNOLD, DO. forthcoming. For Canaanite “personal piety” on scarabs, see KEEL 1989a: 277.

### The Protosinaïtic graphemes and their possible parallels in Sinai hieroglyphs<sup>84</sup>

Most graphemes which have already been identified in the Protosinaïtic 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.<sup>85</sup> Some graphemes may reflect a combination of hieroglyphic prototypes and an actual referent. Such is the case of the *bet* grapheme which will be discussed in detail below, p. 143 (see also Table, 2).

Our 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." Most of the hieroglyphic prototypes could have been adopted from examples in Wadi Maghârah, Rod el-<sup>c</sup>Aîr, and in the mine area. Nevertheless, some important examples come from inscriptions in the temple area, especially from *Sinai* 92 (Fig. 18). As four Protosinaïtic inscriptions come from the temple area, three on small personal statues, and one on a female sphinx (Fig. 7a<sup>86</sup>), it seems that at least some of the writers of the Canaanite script had access to the temple area, even if it was restricted.<sup>87</sup> Most of the hieroglyphic inscriptions considered by us as sources for prototypes date to the late reigns of Amenemhat III and Amenemhat IV. However, one should keep in mind that many inscriptions (hieroglyphic and probably also Protosinaïtic) were most likely lost, and there is no way to calculate what percentage of the original material

is still available today. Evidently, smaller objects, such as small stelae and other small finds that could be easily moved, were the first to disappear.

I have limited my discussion of the Protosinaïtic signs to those that have at least several repetitive occurrences in the Protocanaanite repertoire of signs.<sup>88</sup>

### The identified graphemes of the Protosinaïtic script with their possible prototypes (numbered according to the Table)<sup>89</sup>

#### No. 1



*ʔ* (*alep*) The "name" of the letter means "ox" or "bull."<sup>90</sup> The ox head hieroglyph is well known in Sinai and is very common in desert inscriptions and on small personal stelae in Egypt (e.g., Fig. 14). The hieroglyph is visually very conspicuous as part of the offering formula. Three prominent examples survive in the hieroglyphic corpus in Sinai, *Sinai* 89 (Fig. 15a, temple, "hieroglyphic item" on an offering-table, see Table, 1a), *Sinai* 53 (mines, see Table, 1b), and *Sinai* 500 (Fig. 15b, Gebel Maghârah, see also Table, 1e).

#### No. 2

*b* (*bet*) see discussion below, p. 143

#### No. 3



*d* (\**dag* or *dalet*) Letter not safely identified.<sup>91</sup> The current "name" of the letter, *dalet*, means "door." Yet a prominent fish grapheme (*dag*)

<sup>84</sup> GARDINER 1916, ULLMAN 1927, BUTIN 1936, and SASS 1988 advocated the origin of the alphabet in the hieroglyphs of Sinai.

<sup>85</sup> The option to see in the signs a combination of "real life" artifacts and a choice from Egyptian hieroglyphs was already put forward by DRIVER 1976: 156–171.

<sup>86</sup> This sphinx is of great importance since it bears not only a Protosinaïtic inscription, but also a short text in Egyptian hieroglyphs. The name of Hathor is spelled with an owl, a typically Canaanite writing. The shape of this owl closely resembles other cursive examples of Middle Kingdom owls from both Sinai and Egypt proper (see, e.g., Figs. 14, l. 2 and 3; 18b, l. 3). This fact may provide a clue to the date of the bilingual monument.

<sup>87</sup> See below, p. 151. On the topic of the "free movement" of the workers, see PEDEN 2001: 34.

<sup>88</sup> There is a long, ongoing debate on several graphemes that appear sporadically in the script. See SASS 1988, and an up to date discussion in HAMILTON 2006.

<sup>89</sup> I limit my discussion to identified graphemes. *Gimel* has not been identified in the Protosinaïtic corpus; see SASS 1988: 112; HAMILTON 2006: 53.

<sup>90</sup> This sign was already very early identified by scholars in the Sinai repertoire. For bibliography, see HAMILTON 2006: 29–38.

<sup>91</sup> The phonetic value of the fish is also still debated, as a number of scholars still see it as the grapheme for *s*, reconstructing the name of the grapheme as *samek*; see SASS 1988: 113–114.

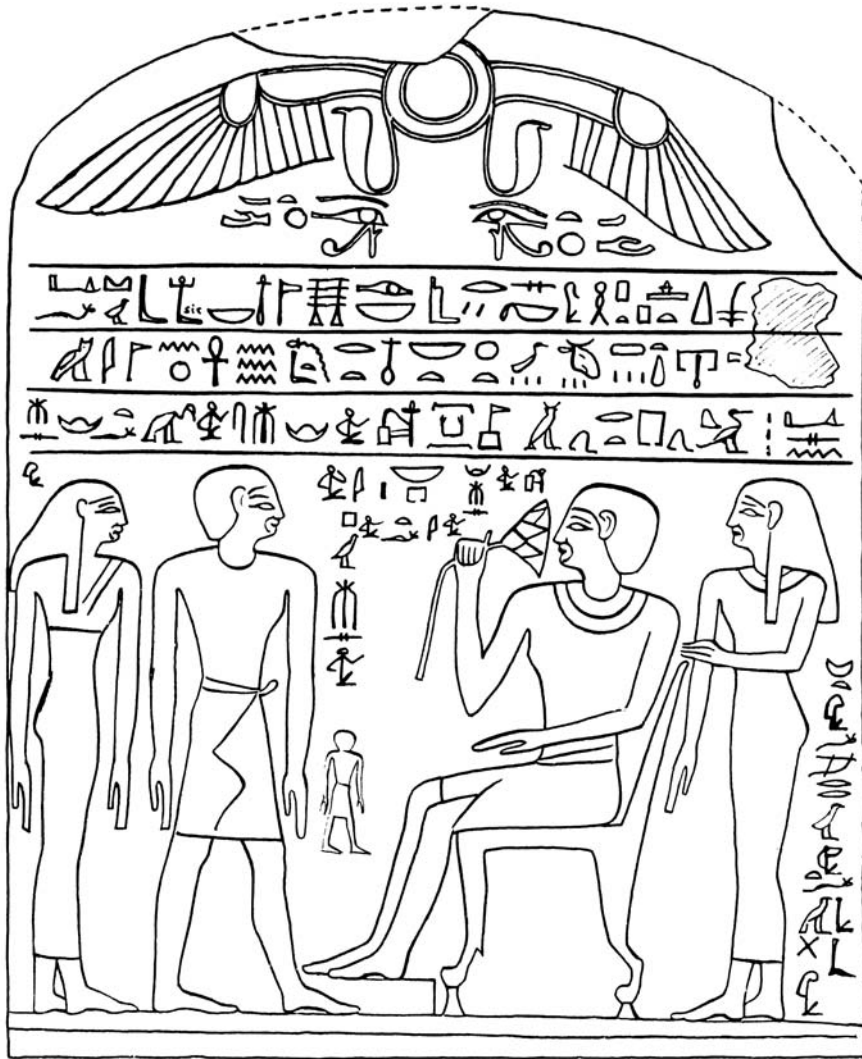


Fig. 14 Middle Kingdom stela in the British Museum (LAMBERT 1914: pl. 17, no. 336)

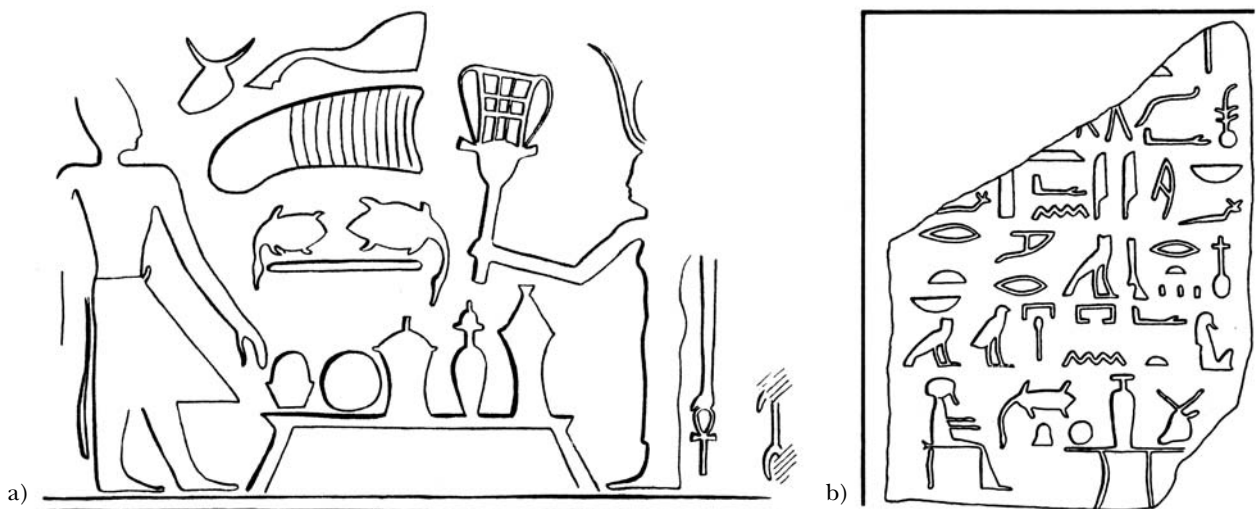


Fig. 15 Examples of hieroglyphic sign F1 from Sinai (a: no. 89, b: no. 500)  
(a: *Sinai I*: pl. XXV, no. 89, front; b: *ibid.*: pl. LXXXIX, no. 500)



which appears frequently in the Protosinaïtic inscriptions is taken by most scholars to represent the phoneme *d*. Both \**dag* and *dalet* may carry the acrophonic value *d*. If the Protosinaïtic script indeed represents the first stage of the invention, and if we postulate that the invention occurred in a non-literate level of society, it is possible that at the very beginning two different icons or two graphemes which could carry the final phonetic signified *d* were “competing” for the representation of the phoneme.<sup>92</sup> Sign 21AA in the Table may have carried the value “door” according to some scholars. The “door” letter

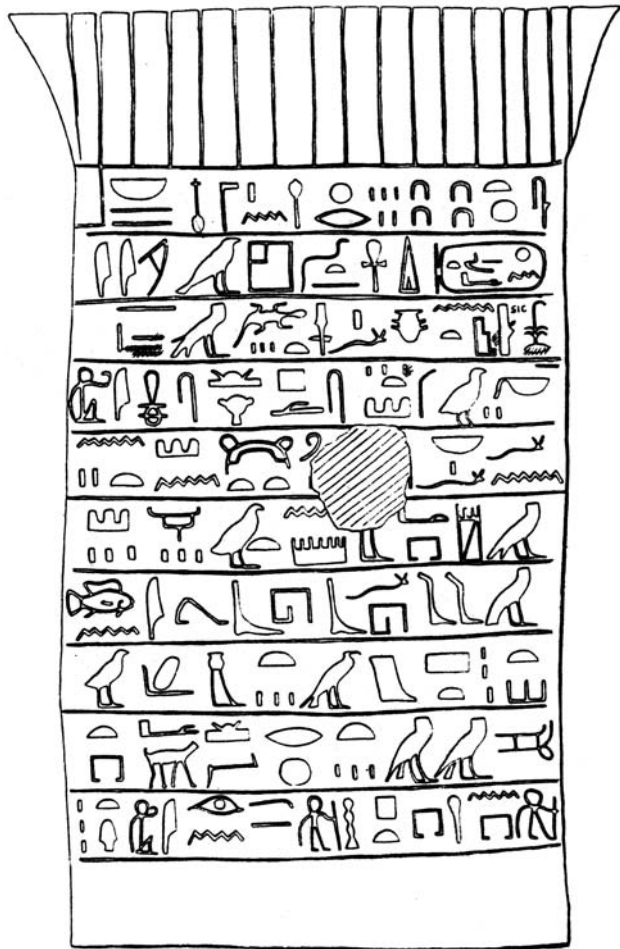


Fig. 16 Stela from the mines (*Sinai* 54)  
(*Sinai* I: pl. XVIII, no. 54)

may have also had its prototypes in the hieroglyphic script, although it is not an iconically salient sign, (e.g., *Sinai* 53, line 1, mines, see Table, 21aa) as are the bull, the lampwick, or the fish. However, the very existence of the “door” sign in the Protosinaïtic script is still highly debated, and if it exists at all, it has strong affinities with another sign which is sometimes read as *het* (see Table, 21BB).<sup>93</sup>

A highly iconic fish hieroglyph can be seen on an Egyptian inscription from the mines of Serabit el-Khâdim, *Sinai* 54, line 7, (Fig. 16).<sup>94</sup> The inscription dates to year 45 of Amenemhat III. Nevertheless, the fish is not very common in the script, and its selection might have also been promoted by the sphere of “concrete referents.” Hamilton devotes a long discussion to the precise forms of fishes in the different inscriptions, a detailed study that forces him to look for prototypes in hieratic and even in texts of the Old Kingdom.<sup>95</sup> As the Protosinaïtic texts were written by “amateurs,” and the script is still in its budding iconic form, we cannot expect any uniformity of graphemes – either in size, form, direction (horizontal vs. vertical), or in general resemblance to the original prototype, if there is one at all.<sup>96</sup> It seems that each writer *recreated* from his own memory his “own” fish as he imagined it, or recalled it from the hieroglyphs that he had seen.

#### No. 4



*Sinai* 354

*h* (*he*)<sup>97</sup> The standing/walking man with the raised hands. The meaning of the grapheme’s “name” has probably to be connected with a typical, loud call or order emitted by this official when he raised his hands to assemble the people. This is a very conspicuous, distinctive “Sinai hieroglyph” (e.g., Fig. 17a–b [*Sinai* 114], 17c [*Sinai* 90], and 18b [*Sinai* 92], see also Table, 4a–d), which strongly speaks for the development of the Protosinaïtic script out of the Middle Kingdom hieroglyphic

<sup>92</sup> See CROSS and LAMBDIN 1960: 25. HAMILTON (2006: 61) accepts this suggestion.

<sup>93</sup> See SASS 1988: 117–121.







<sup>94</sup> In this example, according to the rules of the Egyptian script, the fish hieroglyph has only a phonetic value and its iconic value (i.e., “fish”) should be discarded.

<sup>95</sup> HAMILTON 2006: 69–73. Later in his text, Hamilton con-

nects the fish to the “symbols of the Delta” which he traces in the repertoire of the signs; *ibid.*: 316.

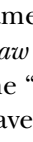

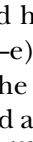
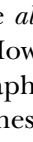
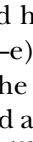
<sup>96</sup> See also SASS forthcoming.

<sup>97</sup> HAMILTON 2006: 84–86, with bibliography. Hamilton mentions the South Canaanite interjection [*hoy*]. This interjection is well known also in laments of Biblical Hebrew.

repertoire of Sinai.<sup>98</sup> Its frequent appearance is very noticeable in inscriptions of this period in Sinai, mainly in lists, and in connection with petty titles, such as *hry-pr*, “the overseer of the house,” etc. In Egypt, the hieroglyph rarely appears with this meaning.<sup>99</sup> Gardiner, Černý, and Peet refrain from giving it an Egyptian phonetic reading in the context of Sinai. In their publication they already suggested that “due to its frequent occurrences in the Sinai inscriptions the sign  (A28) has passed into the Protosinaitic alphabet.”<sup>100</sup> Well acquainted with the gesture and its meaning in their daily life, the inventors gave it a “Canaanite reading.” – *hey* (!) or the like. The “one legged” versions of the Protosinaitic script might have been born under the influence of the “one legged”  hieroglyphic examples (see Table, 4a and c<sup>101</sup>). The last examples, in their turn, may have been influenced by some cursive versions of  (A1) that frequently appear close to the  hieroglyph in the inscriptions (e.g., *Sinai* 114, see Fig. 17a). Another source of inspiration may have been provided by superficially similar looking cursive writings of *3b*  (U23) or *(j)3b*  (R15) (e.g., Fig. 14, l. 1)

#### No. 5

##### *Sinai* 351

*w* (*waw*) The grapheme may have emerged from imitations of the hieroglyphs *hd* , “mace,” or *hrw* , “oar,” which were often written horizontally and look very similar to the mace hieroglyph. *Hrw* is part of the common combination *m3<sup>c</sup> hrw*, “true of voice,” which is well known in Sinai (e.g., *Sinai* 142). In *Sinai* 92 (the long *Hbdd* inscription, see Fig. 18a, l. 1) the sign for *hk3* , “crook,” looks very similar to the Canaanite *waw*, and may have also been a source for the “Canaanite reading.”<sup>102</sup> Also the hieroglyph *hm* , “majesty,” in *Sinai* 54, l. 1, looks very much like the *hd*  sign (Fig. 16). For the uninitiated, all

these signs would have looked very much the same, and could have *all* served as prototypes for *waw* (Table, 5a–e). However, in accordance with the “name” of the grapheme, the Canaanites may have understood all these different hieroglyphs as sorts of “hooks.”<sup>103</sup>

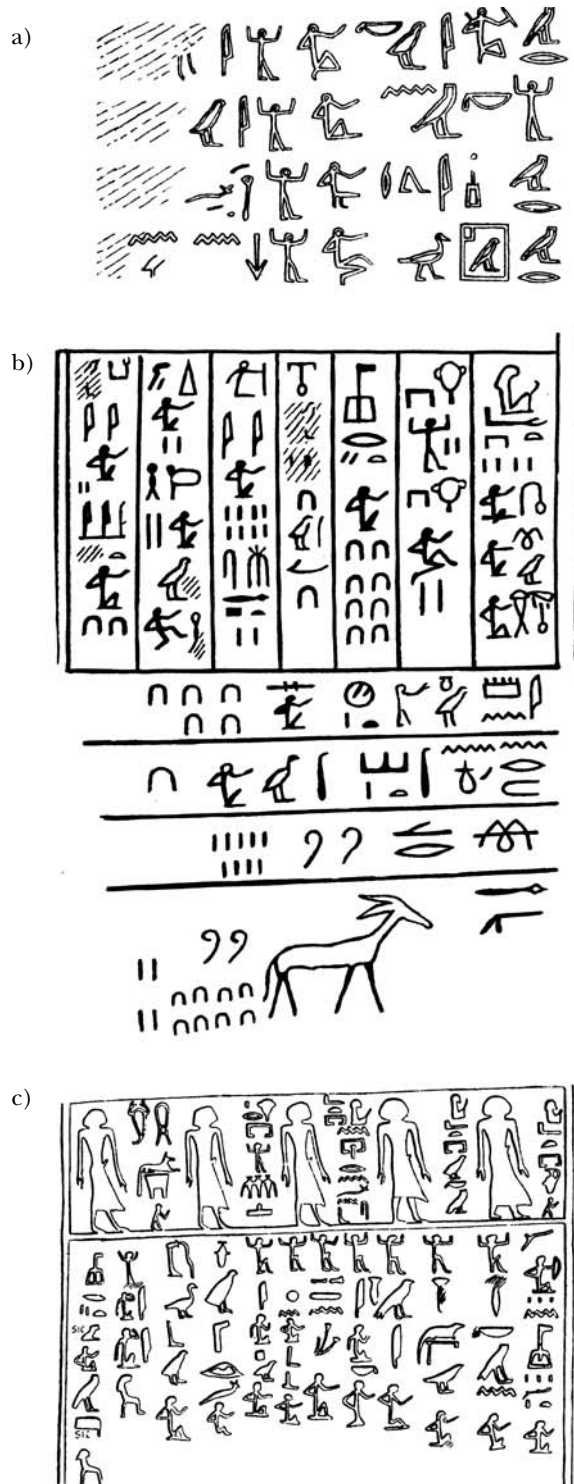


Fig. 17 Examples of the hieroglyphic sign A1 from Sinai (a: *Sinai* I: pl. XXXVIII, no. 114, w. face, cols. 10–13; b: *ibid.*: pl. XXXVI, no. 114, s. edge, lower part; c: *ibid.*: pl. XXVA, no. 90, lower part)

<sup>98</sup> BUTIN 1936: 54; SASS 1988: 115.

<sup>99</sup> SEYFRIED 1981: 217–218.

<sup>100</sup> *Sinai* II: 67; see also BUTIN 1936: 53–54.

<sup>101</sup> An iconically similar hieroglyph can be discerned on the Egyptian stela in Fig. 14, l. 1. However, the meaning and origin there are different.

<sup>102</sup> This suggestion was already put forward in SASS 1988: 115.

<sup>103</sup> On the problem of the grapheme’s name, see HAMILTON 2006: 90–92.

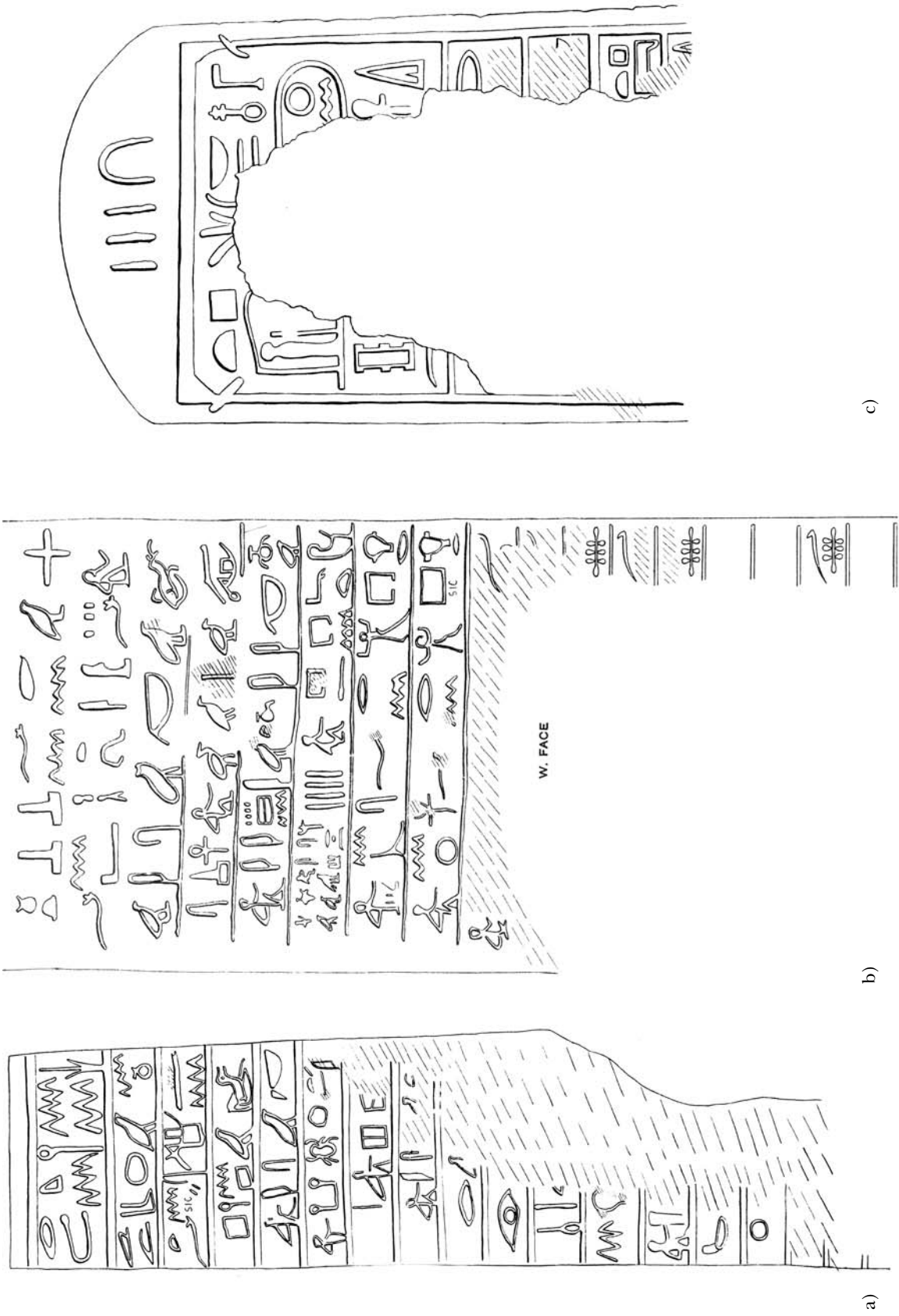


Fig. 18 The inscription of *Hbdd*, Sinai 92 (a: south edge, b: west face, c: east face) (a: *Sinai I*: pl. XXVII, no. 92, s. edge; b: *ibid.*: w. face; c: *ibid.*: e. face)



## No. 7



Sinai 349

**h** (*het*) A lampwick.<sup>104</sup> A very similar hieroglyph which carries the phonetic value *h* in Egyptian is common in the hieroglyphic inscriptions of Sinai. The wick and the lamp were probably also in daily use by the workers, yet the *upright position* (in all Sinai examples known to date) of the sign points to the direct adoption from the hieroglyphic script. The “Canaanite reading” – *harm*.<sup>105</sup>

## No. 8





Sinai 379

**y** (*yod*) The grapheme prototype is the hieroglyph “forearm” . The meaning of the “name” of the grapheme – “hand.”<sup>106</sup> The origin of the sign in the Sinai inscriptions corpus can be very easily found. It is a very common hieroglyph. Moreover, it is part of the cartouche of Amenemhat III.

## No. 9



Sinai 349




**k** (*kap*) The grapheme, as it appears in Protosinaitic,<sup>107</sup> points to an origin in the concrete domain of referents.<sup>108</sup> No hieroglyphic prototype can be found. The Egyptian palm hieroglyph ,  (D46, D47) does appear in Sinai, but the fingers hardly show, and the hieroglyph is always horizontal, and, *in toto*, it looks very different. The Protosinaitic examples in Sinai show a vertical position, which is foreign to the hieroglyphic script system. The meaning of the “name” of the grapheme – “palm.”

## No. 10



Sinai 353

**l** (*lamed*) The sign may be borrowed from a few hieroglyphic signs that share the general layout





of the sign, such as the hieroglyph for 100  (V1), “coil of rope” (e.g., Table, 10c–d). Another possibility is a kind of peasant crook  (S39) which was used in connection with flocks.<sup>109</sup> Should this be the case, the hieroglyph that could serve as a prototype may be found in examples such as 10a in the Table. The Egyptian reading of 10a is the mono-consonantal phoneme *s*. The iconic meaning of the sign in the original Egyptian system is  (S29), “folded cloth,” yet iconically, the sign may easily be taken by the uninitiated to be a kind of staff, familiar from daily life.

The meaning of the “name” of the grapheme – “training instrument (for animals),” “ox-goat.”<sup>110</sup>

## No. 11





Sinai 352, 351

**m** (*mem*) The prototype for the grapheme can easily be found in numerous examples of the hieroglyph  (N35), “ripple of water,” in Sinai.<sup>111</sup> It is important to note that the sign as such does not carry the iconic meaning “water” in Egyptian, but is used for denoting the mono-consonant *n*. The idea of “water” is represented in the hieroglyphic system by a combination of three  signs, one above the other  (N35a). Thus, the reading of the hieroglyph  as water is another prominent example of “Canaanite reading.” All identified graphemes in the Protocanaanite script (as well as in Egyptian hieroglyphs in Sinai) appear in horizontal position. The meaning of the “name” of the letter – “water.”

## No. 12



Sinai 349, 365a

**n** (*nun*) The snake is based on two very common hieroglyphic prototypes –  (I10) and  (I9). The snakes are very common in every inscription.<sup>112</sup> However, in Egyptian, the two snakes have

<sup>104</sup> HAMILTON 2006: 59–60 with fig. 2.14 (pictorial example after FISCHER).

<sup>105</sup> HAMILTON 2006: 57–60.

<sup>106</sup> See HAMILTON 2006: 115–116.

<sup>107</sup> For a possible “Egyptian” variation from Wadi el-Hôl, see below, p. 150.

<sup>108</sup> Sass seems to be of a similar opinion; see SASS 1988: 122, and also KAMMERZELL 2001: 121.



<sup>109</sup> KAMMERZELL 2001: 121.

<sup>110</sup> HAMILTON 2006: 136–137 with bibliography.

<sup>111</sup> BUTIN 1936: 55–56.





<sup>112</sup> Already BUTIN 1936.



highly differentiated phonetic readings, and the two sign never merge together, or replace each other. The  stands for the mono-consonant *d*, while the  denotes the mono-consonant *f*. The “Canaanite reading” assigns to the two different signs a single, new phonetic signified – *n*. The meaning of the “name” of the letter – “fish” (*sic*).<sup>113</sup>

#### No. 13



⤵ (>*ayin*) A very common hieroglyph  (D4), yet with a very different phonetic reading in Egyptian. The reading of the sign in the hieroglyphic system is usually *iri* with the meaning “to do.” The Canaanites adopted the salient icon, and through the “Canaanite reading” process returned it to the iconic meaning – “eye.” Inscription 346 has a few examples with no iris (see Table, 13e). Similar examples also exist in the hieroglyphic repertoire of Sinai, where “empty eyes” alternate with the “full eye” representation.<sup>114</sup> It is also possible that hieroglyph  (D21, meaning “mouth”) was understood by the Canaanites as an “eye without iris.” A similar phenomenon of a mixture of  and  is known from a scarab of the late 12<sup>th</sup> Dynasty from Tell el-Dab<sup>a</sup>, which carries the name “Sesostris.”<sup>115</sup> However, the concrete referent may have also played a role in the creation of this sign. The meaning of the “name” of the letter – “eye.”

#### No. 14





⤵ (*pe*) The Egyptian “corner” hieroglyph  (O38 and its variants) could have served as a good prototype for the Protosinaïtic grapheme, yet it is a rather rare hieroglyph and is hardly to be found in Sinai. Theoretically, few other signs



Fig. 19 Modern replica of a Middle Kingdom builder’s square, see Table, 14 (after ARNOLD, DI. 1991: 255, fig. 6.5)

with similar shapes but different meanings that do exist in Sinai might have played the role of an iconic prototype for the Protosinaïtic sign. However, an unsolved question is what idea or referent the Canaanites had in mind when choosing this icon. The “name” of the letter in this case is very important, and the word *pe* could carry two central meanings – “mouth,” or “edge.” Another possible noun (variation on “edge”) would be *pbt* in Ugaritic, or  in Hebrew, with the meaning “corner.”<sup>116</sup>

Should the prototype be looked for in the realm of the concrete, a familiar builder’s tool comes to mind, namely, a tool (see Fig. 19) which Arnold calls “builder’s square”<sup>117</sup> and which might have been used in the building projects in the temple area, and even in the mines. If the



Fig. 20 A Canaanite scarab from Tell el-Dab<sup>a</sup> (after MLINAR 2004: 123, fig. 9.7)

<sup>113</sup> See BUTIN 1936: 53–55. For a discussion of the name of the letter, with ample bibliography, see HAMILTON 2006: 170–171.

<sup>114</sup> Also observed by HAMILTON 2006: 182–183. An extraordinary picture from the publication of Valbelle and Bonnet clearly shows a conspicuously “empty eye” in *Sinai* 53, l. 10, the rock-carved stela in the mines (VALBELLE and BONNET 1996: 122)! See also *Sinai* 141, l. 7 and 11; *Sinai* 114 (w. face), l. 7 (*m33*).

<sup>115</sup> The scarab comes from stratum E/3–F. Other parallels are known; see MLINAR 2001: 252–253 with figs. 32–33.

<sup>116</sup> For the history of this suggestion that goes back to Sprengling, see HAMILTON 2006: 195, n. 248. Also NAVEH (1997: 25) chooses “corner” after ALBRIGHT.

<sup>117</sup> ARNOLD, DI. 1991: 253 with fig. 6.5.

builders were ever engaged in building projects in Egypt, they surely encountered this tool. The form of this tool fits perfectly the word *pi3t*, and might have carried this name in the Canaanite dialect spoken by the inventors.

Another option would be the “free corner,” formally part of the name of Hathor, which was commonly used as a “free icon” by the Canaanites on early Canaanite Middle Bronze Age scarabs (see, e.g., Figs. 10, 11, 20, and detailed discussion in Part I, above).

#### No. 16





*Sinai* 351, 380

*q* (*qop*) No hieroglyphic parallel. The Canaanite name of the letter, which means “monkey,” led scholars to identify the Canaanite sign with a somewhat abstract monkey icon. Hamilton sought the prototype in Egyptian wall reliefs.<sup>118</sup> If a monkey at all, the origin may be looked for in a “real life” model, a pet monkey or a statue of a monkey, or the combination of the two. The god Thoth had a special importance in Wadi Maghârah,<sup>119</sup> and in the Near Eastern type temple at Tell Ibrahim Awad (Old Kingdom), among the ex-votos, a head of a polished baboon statue was found. A new find from Tell el-Dab<sup>ca</sup>, from an offering pit in a palace of the early Hyksos period,<sup>120</sup> is a bowl with a drawing of two baboons and a tree. Two beautiful monkeys adore the name of the 13<sup>th</sup> Dynast king Hetepibre on a mace found in Ebla, and monkeys are also rather common on cylinder seals from the Middle Bronze Age.<sup>121</sup> This find may point to the special role of this animal in the Canaanite cultural sphere.

#### No. 17



*Sinai* 357

*r* (*reš*) Two hieroglyphic prototypes are possible.<sup>122</sup> Most of the examples clearly follow  *tp* (D1), “head,” but one example may follow  *hr*

(D2), “face.” (see Table, 17E)<sup>123</sup> In correct Egyptian, these hieroglyphs never interchange, and they carry different phonetic values. For the uninitiated, both signs look like representations of a human head. Some conspicuous Egyptian prototypes are reflected in the Sinai repertoire. Meaning of the “name” of the letter – “head.”

#### No. 19



*Sinai* 365a

*š* (*šin*) The grapheme has no clear prototype as such in the Egyptian inscriptions in Sinai. Yet a very conspicuous soldier with a similar bow appears in *Sinai* 23, l. 3 (Wadi Maghârah, see Table, 19a). The original meaning of the “name” of the grapheme was probably “bow.”<sup>124</sup> The concrete referent (bow) was certainly a cognitively salient object in the lives of the soldiers and builders at the site. It fits perfectly the social milieu reconstructed by Darnell in his recent publications (compare here the Asiatic soldier with the bow from Beni Hassan, Fig. 21).

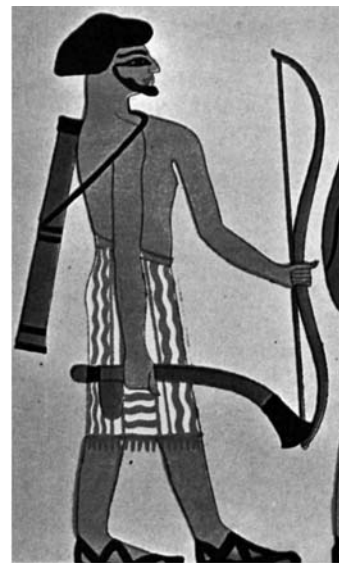


Fig. 21 A Canaanite bowman from the tomb of Khnum-hotep II (Beni Hassan, Middle Kingdom) (PRISSE D'AVENNES 1991: pl. II.47)

<sup>118</sup> HAMILTON 2006: 209–221. In some of his reproductions, the monkeys get some sort of a tail. See also YARDENI 2004: 75.

<sup>119</sup> For Thoth in Sinai, see VALBELLE and BONNET 1996: 38.

<sup>120</sup> See BIETAK and FORSTNER-MÜLLER 2006, in this volume.

<sup>121</sup> For the mace from Ebla, see SCANDONE MATTHIAE 2004: 201, pl. II. For the cylinder seals, see TEISSIER 1996: 51, no. 9; 67, no. 84, and *passim*.

<sup>122</sup> BUTIN 1936.

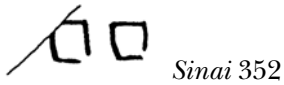
<sup>123</sup> HAMILTON prefers to see it as a *bet*; see HAMILTON 2006: 49. Sass still regards it as a frontal head; SASS 1988: 131.

<sup>124</sup> For the name of this letter and its problems, see HAMILTON 2006: 241–244.

### The missing link – the case of *bet*



Sinai 359, 346a



Sinai 352



Sinai 357



Sinai 346b, 349, 362

Sinai 374, 380<sup>125</sup>

Of all identified letters in the Protosinaitic script, *bet* is one of the least-debated. After the identification of the word *b<sup>c</sup>-l-t* by Gardiner (it is still the only word not challenged by different translations), it was accepted by all scholars that the *bet* sign represents a schematic house. Those scholars who believed that hieroglyphic signs constituted prototypes for the Protosinaitic signs suggested that the Egyptian “house” hieroglyph  $\square$  (O1) and the “shelter” hieroglyph  $\square$  (O4) are sources of the *bet* sign.<sup>126</sup>

However, somewhat surprisingly, of *all* the Protosinaitic versions of the *bet*, not even one (!) shows a version of the correct Egyptian hiero-

glyphic signs O1 or O4; rather, one finds a plethora of versions of a *square* sign, sometimes open at the corner and, in a few rare cases, with a clear entrance. The Protosinaitic sign differs from most hieratic, cursive, or “semi cursive”<sup>127</sup> variations of the sign, all clearly showing a tendency towards a wide open lower part (e.g., Fig. 17b, col. 2).<sup>128</sup>

### Where does the Protosinaitic bet come from?

*Sinai 92* is a Serabit el-Khâdim stela positioned at the old pathway to the temple (Fig. 18). The stela is inscribed on all four of its sides. However, the inscriptions differ considerably. The east face of the stela, which was the main side, was inscribed with a hieroglyphic inscription dated to “Year 13” and dedicated to Ptah. The hieroglyphs are of high quality and present a high level of “Egyptianness” (Fig. 18c). The north edge of the stela (a narrow side) contains hieroglyphs of the same good quality as the east face of the stela. The well executed hieroglyphs give the titles of a “god’s treasurer,” a high Egyptian official (his name is lost).<sup>129</sup> However, the two additional inscribed sides are very different. Clearly added by a different (later?) hand, the south-edge inscription (Fig. 18a) is paleographically a world apart.<sup>130</sup> The handwriting on this side of the stela strongly recalls the different cursive hieroglyphs in mining areas in Egypt, such as Wadi el-Hudi.<sup>131</sup> The hand hieroglyph  $\text{𐀀}$  (D47) appears in a version closer to hieratic, and thus represents the “expedition paleographical dialect” mentioned above. This crude “mixed style” is rather rare in the Serabit temple area itself, especially on stelae, and thus it becomes even more exceptional. This inscription

<sup>125</sup> Bietak suggests that this example (from inscription 380, discovered by Sass) be seen as a variation of a building with a hurdle-wall enclosing a courtyard which is attached to a building.

<sup>126</sup> See the recent discussion of Hamilton, with history of research, HAMILTON 2006: 39–52. SATZINGER (2002: 17) suggests also  $\square$  (O6), and DARNELL *et al.* 2005 add also  $\square$  (O20).

<sup>127</sup> For the definition of this script, variation, and its complications, see FISCHER 1976: 40–44; HAMILTON 2006; DARNELL *et al.* 2005.

<sup>128</sup> E.g., ANTHES 1928; DARNELL 2002. A single variation with a low-part side-opening can be seen on the otherwise nicely executed Hammâmât inscription no. 87, dating to the reign of Sesotris I; see COUYAT and MONTET 1913: 64–65, with pl. 20.

This stela is also of a mixed style, but includes relatively few hieratic versions of signs. Very conspicuous are the numbers on column six of the inscription; see COUYAT and MONTET 1913: pl. 20. Most other inscriptions of semi-cursive hieroglyphs (on the different levels of “semi-cursive,” see FISCHER 1976: 40–43) do not tend to have a square shape but do tend to have an open lower part – e.g., BUDGE 1912: pls. 1–2. A full list of examples has to be reserved for a forthcoming, more exhaustive publication.

<sup>129</sup> VALBELLE and BONNET 1996: 18.

<sup>130</sup> VALBELLE and BONNET (1996: 76) speak about the typical inscriptions for the four sides of a stela at the site. The *Hb*dd inscriptions fall nicely in this pattern.

<sup>131</sup> See FAKHRY 1952.


commemorates the a “brother of the *hq3 n Rtnw*, *Hbdd*,” known from other inscriptions as well. This man, carrying the same title, appears again in another inscription as part of a list of Egyptian officials, and is part of the Egyptian establishment and team. His attestations in Sinai span a period of at least two decades.<sup>132</sup>



It seems that a similar hand is also responsible for the west face of the stela (Fig. 18b), where the name of a certain “young (*t3y?*) official, *Kms*,” seems to be repeated. Whoever wrote the text for *Hbdd* (or did he do it himself?) had a special paleographical idiolect, which is not repeated in other inscriptions in the temple. The hieroglyphs are clumsy and show a low level of “Egyptianness.”

Nevertheless, for some unknown reason he writes the *pr* “house” (O1) sign in a very unusual way. The *bet* repeatedly appears as a mere square, or square with a little opening on the side (e.g., Fig. 18a, l. 4; 18b, l. 8).<sup>133</sup> This variant is very rare in the parallel “expedition dialect” in Egypt. However, Serabit Stela 92 is not the end of the career of the “closed O1” in Sinai. It reappears in Sinai inscriptions 28 (see Fig. 6a–c) and 32 (both Wadi Maghârah).

Sinai inscriptions 28, 29, and 32 were probably written by a single scribe. Inscription 28 and 29 both date to year 42 of Amenemhat III’s reign. Inscription 28 is almost intact, but very little remains of inscription 29. Nevertheless, one can discern that both were written in the “expedition paleographical dialect,” and both inscriptions

contain very specific idiosyncratic paleographic affinities, even within the framework of the unstable “semi-cursive” script (Fig. 6).

In both inscriptions, the *k3*  sign (D28) is written with clearly exaggerated “breasts” (Fig. 6c; Fig. 6d, col. 2).<sup>134</sup> The word *mfk3t* presents an idiosyncratic spelling with an additional *3*, probably as “phonetic complement” for *k3*.<sup>135</sup> This spelling is uncommon in the inscriptions from the temple area. In the two inscriptions, the *hwt* sign possesses a plethora of square iconic variations, unknown from any other inscription in Sinai or Egypt (Fig. 22). It exhibits a typical case of “Canaanite reading” (see detailed discussion in Part I, above).

Inscription 28 contains an incorrect grammatical form (see above, p. 129), and at least one sign that cannot be safely identified even if it shows a high level of iconicity (, see Fig. 6a, col. 5). The sign is read tentatively by the authors of *Sinai II* as a *htp*  sign (R4) representing an unusual altar.

It may be that *Sinai* 28, 29, and some other inscriptions from Wadi Maghârah, preserve the tradition of partially literate Canaanite scribes. The hieratic “intrusions” into the text are rather limited in number, yet these writers have their own tradition of Egyptian writing. It is possible that we can trace the buds of this tradition in the earlier inscription from the temple, *Sinai* 92 discussed above. Moreover, they keep the tradition of the square *pr* encountered two decades earlier in the inscriptions of *Hbdd*. The scribes from

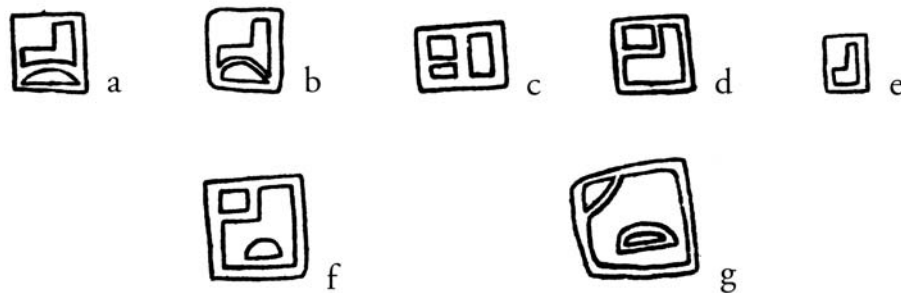


Fig. 22 Examples of the *hwt* sign taken from inscriptions at Wadi Maghârah (a: *Sinai* I: pl. XII, no. 28, col. 1; b: *ibid.*: col. 2; c: *ibid.*: col. 3; d: *ibid.*: col. 5; e: *ibid.*: col. 7; f: *ibid.*: pl. X, no. 29, col. 1; g: *ibid.*: pl. XIII, no. 30, col. 1)

<sup>132</sup> GARDINER 1961: 47.

<sup>133</sup> Sass already mentioned the closeness of these *bet* variations to *Sinai* 92, and provides a plate showing the inscription (SASS 1988: 111). However, he did not carry the discussion further.

<sup>134</sup> For such a writing of the *k3* sign as part of the name of

Queen Hatshepsut on a scarab, see PETRIE 1917: pl. XXVI, 19.

<sup>135</sup> Only one more version with an *3* is known to me from Sinai. It is a stela dating to year 23 of Amenemhat III. This spelling is not present in the *Wb*.



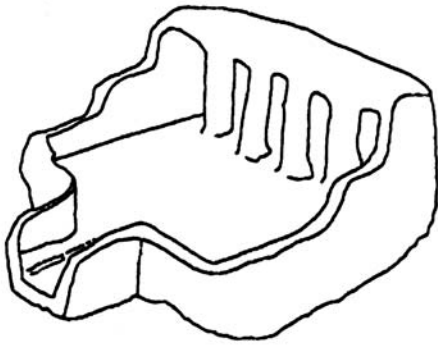


Fig. 23 “Soul house” from a Middle Kingdom tomb  
(after HAMILTON 2006: 40, fig. 2.4)

Maghârah are more “free” in their idiosyncratic use of the Egyptian hieroglyphs than the writer of *Sinai 92*.

Unlike the case of the temple area, the workers in the mines probably had free access to the Wadi Maghârah inscriptions and to the few (but

beautiful) hieroglyphic inscriptions in the mining area. It is not surprising, then, that most of the repertoire of the Egyptian prototypes for the Protosinaitic graphemes can be detected in these very texts, despite their sometimes unusual use of Egyptian hieroglyphs.

However, the creative history of the Canaanite *bet* grapheme does not end here. There are at least two very clear and non-debated examples of the *bet* grapheme in Protosinaitic with a clear “entrance” (see above, *Sinai 359* and *346a*). Until Hamilton’s last publication, no scholar had explained this phenomenon. However, Hamilton ingeniously suggested that these examples reflect a typical “soul-house” – offering tables of the poor in the form of a house, which usually show an “entrance” (see Fig. 23).<sup>136</sup> The “soul houses” are common in the Middle Kingdom,<sup>137</sup> and are certainly appropriate to the social environment of the miners. No examples of such houses have yet been recorded in the Sinai finds; yet little atten-

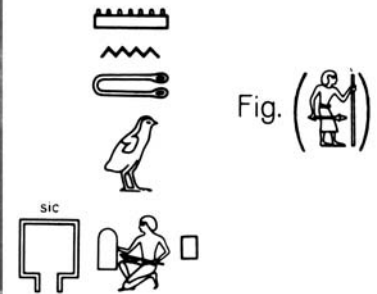


Fig. 24 Graffito from Lower Nubia mentioning a *Mntw-htp* (ŽÁBA 1974: pl. CLXII, fig. 292, no. 170)

<sup>136</sup> HAMILTON 2006: 42.

<sup>137</sup> For the “soul houses,” see ROIK 1988: 40–50.

tion was given by the early excavators to broken pottery, and many sherds and small finds still await publication.

The “soul house” explanation is a clear example of the mixture, in one grapheme, the *b*, of two referents. One referent comes from the written hieroglyphic examples, and the other from a “real life” object referent.

Strong support for the reading of the sign as

a pictorial representation of a “soul-house” offering table comes from a unique example published by Žába (Fig. 24).<sup>138</sup> In this rock inscription from Nubia, which he dates to the early 12<sup>th</sup> Dynasty, a similar sign appears. In a detailed and convincing discussion, Žába proposes that the sign should be read as *htp*, “offering-table,” and sees it as a unique variation of the *htp* hieroglyph. However, he does not recognize its connection to the special type of offering table depicted here, the “soul house.” In the Protocanaanite case, the signified of the grapheme is “house.” Thus, this specific Protosinaitic grapheme creates the bridge between the traditional offering table (which is well known in Sinai, see, e.g., *Sinai* 65) and the special type of offering table, “the soul house.” It also shows that this object was understood as a “model of a house” by the Canaanites, as it is used as a signifier for the meaning “house.”<sup>139</sup>

If identified correctly, it seems that the *bet* grapheme in Sinai displays a wide variation of forms in the early stage of the script. There might even be one example which depicts a house with two columns (Table, 2F). Only two signs will continue to develop, the “square” variation, and the “courtyard” (O4) variation, which is hardly attested in Sinai. At the end of the day, the “courtyard” version will be the winning form, and it will continue into the first century BCE.

#### Wadi el-Ḥôl inscriptions as a case of “reproduction”

If Sinai is indeed the place of invention of the Protocanaanite script, the two lines of Wadi el-Ḥôl may provide an example for a “reproduction” process of the script in a different area (Fig. 25).

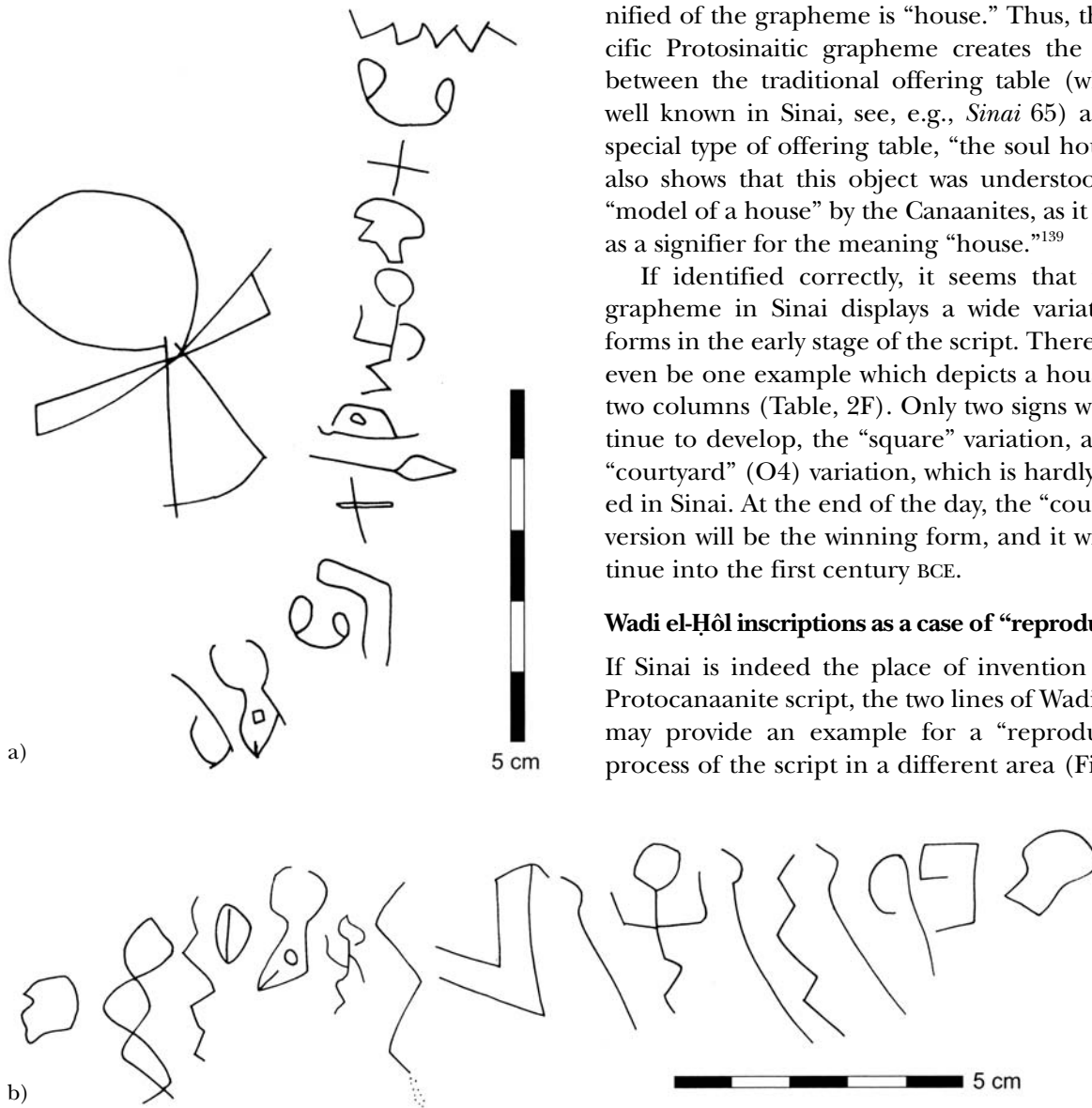


Fig. 25 Protocanaanite inscriptions from Wadi el-Ḥôl (a: after DARNELL *et al.* 2005: 83, fig. 16a; b: *ibid.*: 75, fig. 2a)

<sup>138</sup> For a discussion of the sign, see ŽÁBA 1974: 175–176 with figs. 292–293.

<sup>139</sup> This very sign survives into the Roman period as a mason’s sign probably also with the meaning “offering table.” See ŽÁBA 1974: 175.

It is difficult to say whether this example of the script is indeed entirely alphabetical, or whether it contains intrusions of some Egyptian principles (e.g., classifiers<sup>140</sup>), which may have been known to the writers in this area from their closer acquaintance with the Egyptians and the surrounding Egyptian inscriptions. It is difficult to say whether one and the same inscription was even written by the same hand and in the same direction.



Concerning the date of the inscriptions, Darnell and his collaborators present a somewhat complicated picture. The date of the actual inscriptions is the end of the 12<sup>th</sup> Dynasty or beginning of the 13<sup>th</sup> Dynasty, the heyday of activity in this area. Moreover, Darnell suggests that the inscriptions may be connected to a neighboring inscription of a certain *Bbi* who is *imy-r mšꜥ n ʕmw*, “general of the Asiatics,” which is dated to the late Middle Kingdom.<sup>141</sup> However, the paleographic data as presented by Darnell’s team leads to a much earlier date – early Middle Kingdom. Thus, Darnell *et al.* end up suggesting that the paleographic data points to the date of the *invention*, and not to the later, incidental date of the Wadi el-Ḥôl inscriptions. In this case, the place of invention is neither Wadi el-Ḥôl nor Sinai, but a hypothetical location providing “a plurality of cultural contexts.” Moreover, this place, in their opinion, should be in Egypt, as they consider the prototypes of the script to be a mixture of borrowing from lapidary hieroglyphs and hieratic signs, a mixture, they believe, could have existed only in Egypt.<sup>142</sup>

It seems to us that the paleographic data that Darnell presents as anchoring the invention at the beginning of the 12<sup>th</sup> Dynasty or even earlier should be questioned.

### 1. The “head” graphemes

All three head signs of Wadi el-Ḥôl can be interpreted as “reproductions” of the prototype “head.” The resemblance to the hieratic examples presented by Darnell is difficult to follow.<sup>143</sup> With some imagination the leftmost head on the horizontal inscription could be a man with a beard. The head grapheme in the vertical line (Fig. 25a) could well be a representation of a head with a Canaanite “mushroom head” coiffure (Fig. 25b).

### 2. The problem of the vertical *mem*

Examples of vertical Egyptian *n*  hieroglyphs are indeed best known in the early Middle Kingdom Egyptian stela, as Darnell *et al.* have correctly shown.<sup>144</sup> However, it is a rare phenomenon even at the beginning of the Middle Kingdom, and it appears only as a marginal occurrence in inscriptions which would otherwise be comprised of regular horizontal examples of the hieroglyph *n* .<sup>145</sup> However, the unusual positioning of the *mem* in the inscription of Wadi el-Ḥôl (Fig. 25b) may be due to its location in a horizontal line of writing, which keeps only one grapheme on the line, a rather non-Egyptian attitude. I would suggest that in this case, if applying the “Canaanite reading,” the uninitiated may have had in his mind images of *other* cursive signs that look like a “water” sign positioned vertically. Candidates for such visual borrowing during the late Middle Kingdom in Wadi el-Ḥôl may be the hieratic vertical ligature for *hr* and other ligatures (Fig. 26).

### 3. The “human” grapheme

The human grapheme with two raised arms (once) and one raised arm (twice) may be one and the same grapheme, but may just as well be two different ones. The “one raised arm”

<sup>140</sup> Already suggested in DARNELL *et al.* 2005: 81. WIMMER and WIMMER-DWEIKAT 2001 regard these texts as mixed inscriptions written partially in a Canaanite dialect, and partially in Egyptian.



<sup>141</sup> “Near the main inscription sites in Wadi el-Ḥôl is a small concentration of hieratic inscriptions, paleographically and onomastically of late Middle Kingdom (probably late 12<sup>th</sup> Dynasty) date. Two of the texts have a bearing on the presence of Asiatics in the Wadi el-Ḥôl, and appear to have been executed at roughly the same time.” DARNELL *et al.* 2005: 87.

<sup>142</sup> The inscriptions of Sinai present many examples of hieratic intrusions, lapidary hieratic, and even cursive hieratic. It is difficult to understand why this fact is usu-

ally overlooked by most scholars. The script of the Middle Kingdom in Sinai will be dealt with in a separate publication.

<sup>143</sup> DARNELL *et al.* 2005: 76.

<sup>144</sup> SASS forthcoming: 12–13, refutes this argument by citing the reservations of von Bissing and Sethe about putting too much weight for dating criteria on the unusual vertical position of some hieroglyphic signs.

<sup>145</sup> E.g., LIMME 1979: 18, vertical *n*  only once, at the end of line 3. Otherwise, the hieroglyph *n*  in the normal horizontal position appears 17 (!) times on this small funerary stela. This occurrence is one of the examples mentioned by DARNELL *et al.* 2005: 78, fig. 6e.

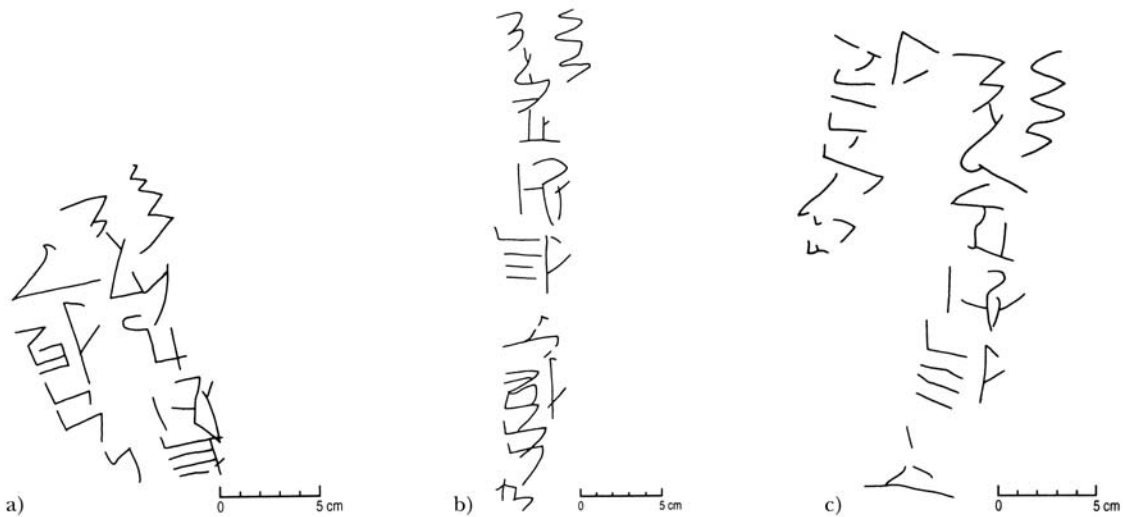


Fig. 26 Egyptian graffiti from Wadi el-Hôl  
(a: after DARNELL 2002: pl. 109b, no. 28; b: *ibid.*: pl. 110b, no. 29; c: *ibid.*: pl. 111b, no. 30)



Fig. 27 Inscription no. 33 from Wadi Maghârah  
(*Sinai* I: pl. XII, no. 33)

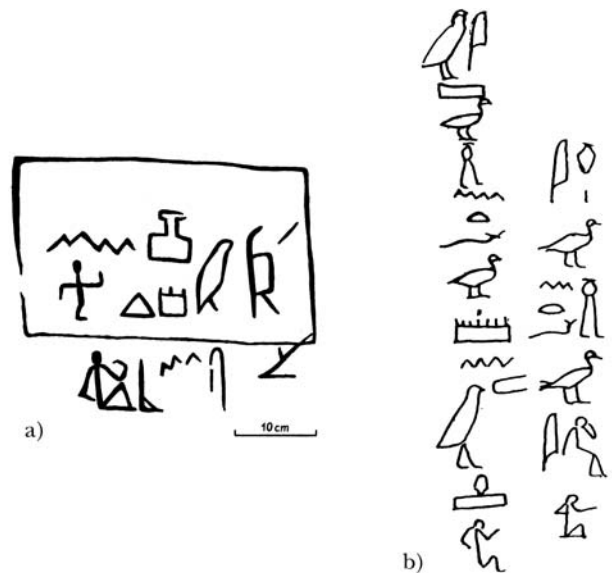







Fig. 28 Examples for hieroglyphic sign A1 from two graffiti (a: Nubia, b: Wadi Hammâmât) (a: HINTZE and REINEKE 1989: Part II: 63, no. 195 with fig.; b: GOYON 1957: 94, no. 74)

grapheme (in both inscriptions it looks very similar) resembles all sorts of cursive variations of the classifier  (A1) [HUMAN+MALE]. A plethora of variations of this sign is well known through the whole Middle Kingdom, and is also well known in

many variations in Sinai (e.g., Figs. 17a; 27, col. x+4; 28a–b). It also appears on scarabs where it sometimes merges with other “human” signs such as  /  /  (variations of A17), and  (A84<sup>146</sup>) (see Fig. 29).<sup>147</sup> At least in the vertical inscription

<sup>146</sup> This sign appears on a rare scarab of Amenemhat III (Fig. 29c), which Keel dates to the reign of the king, but which may well belong to the 13<sup>th</sup> Dynasty or even later, as it already shows the typical “Canaanite” style.

<sup>147</sup> Compare REISNER 1955: 66, fig. 14, nos. 355–357. The date of the scarabs is 13<sup>th</sup> Dynasty. I thank Christa Mlinar for calling my attention to these examples.



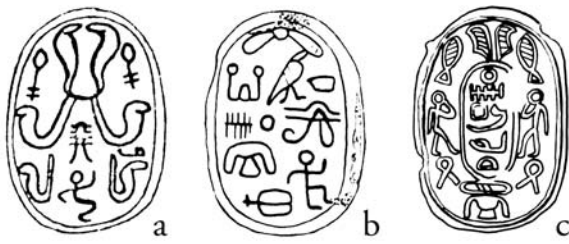


Fig. 29 Three scarabs with human figures (a: after TUFNELL 1984: 277, pl. IX, no. 1476 [Tell el-Ajjul]; b: after EGGLEER and KEEL 2006: 223, no. 50; c: after KEEL 1997: 793, fig. 34)

it can be a classifier (for the tentative reading, see below). Also without any knowledge of Egyptian, anybody living in a “hieroglyphic environment” would easily recognize the ubiquitous human classifier. The human classifier has a very salient presence, and in many examples (a phenomenon known in all periods and genres of Egyptian inscriptions) it may be slightly larger than its neighboring signs, or clearly separated from them. The pictorial salience of this classifier is also known in other pictorial writings, such as Luwian.<sup>148</sup> Nevertheless, the variation of the man with the two raised arms (Fig. 25b) looks more like the signifier of the Canaanite grapheme *h*, as it keeps the most important part of the grapheme – the square raised hands.

#### 4. The bet of Wadi el-Ḥôl

Another reason for the anteriority of the Wadi el-Ḥôl inscriptions is found by Darnell in the type of *bet* that appears in the horizontal inscription. This *bet*, according to Darnell *et al.*, is not known in Sinai, but resembles the later Canaanite *bet* and the South Arabian *bet*.<sup>149</sup> This fact leads him to suggest that the Wadi el-Ḥôl *bet* is the earlier prototype that will surface again in Canaan a few centuries later. Sass correctly questions this reasoning, suggesting that “If anything, these different *bets* transpose Darnell’s order, for they make the Wadi el-Ḥôl inscriptions outwardly closer to the 12<sup>th</sup>-century Lachish bowl fragment than are the Protosinaïtic inscriptions.” Sass goes on to suggest that this is just another variant of the *bet* sign.<sup>150</sup>

<sup>148</sup> E.g., BUNNES 2005. I am grateful to Benjamin Sass for this reference.

<sup>149</sup> DARNELL *et al.* 2005: 77.

<sup>150</sup> SASS forthcoming.

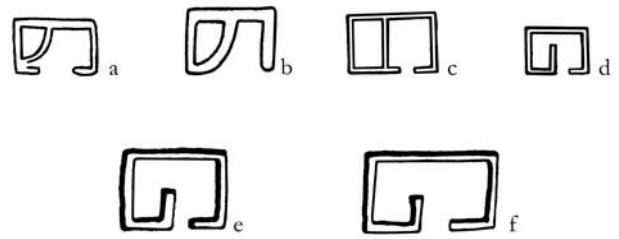



Fig. 30 Examples of hybrid hieroglyphic signs (O1+O4+O6) from Sinai and Wadi el-Hudi (a: *Sinai I*: pl. XII, no. 33, col. 3; b: *ibid.*: pl. XI, no. 35, col. 1; c: *ibid.*: pl. XL, no. 131, edge, col. 2; d: *ibid.*: pl. LIII, no. 142, n. edge, col. 2; e: FAKHRY 1952: 36, fig. 28, col. 2; f: *ibid.*: col. 3)

However, it is important to note that in hieroglyphic inscriptions in Sinai as well as from Wadi el-Hudi in Egypt, there are cases of “hybrid forms,” which are a clear result of a mixture of the hieroglyphs *pr*  $\square$  (O1) and *h*  $\square$  (O4) (Fig. 30). Moreover, it seems that the two hieroglyphs were indeed understood as a “minimal building” by the Egyptian scribes, and this closeness of meaning created the hybrids. The Sinai inscriptions of Wadi Maghârah present also a mixture of *hwt*  $\square$  (O6) and *pr*  $\square$  (O1) signs (Fig. 22g, Fig. 30a–c). The *bet* that resembles the O4 sign in Wadi el-Ḥôl could be part of the process of sign “reproduction,” where the writer in Egypt presents a sign he knows and understands as “house.” It should also be noted that, according to Hamilton’s publication, a *bet* based on O4 may have existed in Sinai as well (Fig. 31).




Fig. 31 A special variation of *bet* in Protosinaïtic inscription no. 353 (after HAMILTON 2006: 347, fig. A.17)

## 5. The “two hands” grapheme

I agree with Hamilton, who cautiously suggests that the second and tenth sign in Fig. 25a may be versions of the Egyptian hieroglyph *k3*  (D28).<sup>151</sup> In this case, the Canaanite writer could not retrieve from his memory the correct *kap* grapheme (palm of the hand in upright position [see above, p. 140], no hieroglyphic model!) and, in searching for the image, confused it with another picture with a similar phonetic value and similar meaning – the Egyptian hieroglyph *k3*, “raised hands with open palms,” that he recalled, maybe even from its very common use on Canaanite scarabs (e.g., Figs. 1b, 11a, 32). The Wadi el-Hôl *k3* shares with the Middle Bronze Canaanite scarabs the representation of the hand-palms as circles.

Such an identification may also yield an attractive (even if highly tentative) reading for the vertical inscription (Fig. 25a):<sup>152</sup>

*m-k-t-r*<sup>153</sup> (+ classifier) *ʿ-w-t-(i)*<sup>154</sup> *p-k-ʿ-ł*<sup>155</sup>  
(The) besieger , “El’s trickle”

This translation fits well with most of the short Egyptian inscriptions in the area, as these contain a title followed by a personal name. *P-k-ʿ-ł* may be the name of a place or of a water spring.


In most cases in Egyptian inscriptions, even if short and cursive, the  [HUMAN+MALE] classifier would appear after the personal name, and not after the title (i.e., not between the title and the name). However, in the neighboring inscription of *Bbi*, “the general of the Asiatics,” which Darnell



Fig. 32 Scarab from Tell el-Ajjul with *k3* sign  
(after TUFNELL 1984: pl. L, no. 2954)


considers to be related to the Protocanaanite inscriptions, we find in the fourth column the title *sinw* (translated by Darnell as “express courier”) followed by a personal name.<sup>156</sup> Here also the classifier appears *between* the title and the name. The “express courier” carries the long name *Hr-nb-h3swt-m-s(3)f*,<sup>157</sup> which presents the god Horus as the master of the “foreign lands.” The name may be very meaningful in the case of a courier that moves between Egypt and the Levant.

Looking for comparisons for the letters of the alphabetic inscriptions of Wadi el-Hôl in fully cursive “papyri hieratic” or even lapidary hieratic (as suggested by Darnell *et al.* and Hamilton<sup>158</sup>) seems to me, again, methodologically precarious. The inscriptions are clearly written by untrained hands (see, e.g., the *h* sign in Fig. 25b), and obviously by people of a low level of literacy of any kind.<sup>159</sup> It is hard to believe that these people, most probably Canaanites, had any access to a “papyri hieratic” level of Egyptian writing. One

<sup>151</sup> HAMILTON 2006: 329–330. In n. 3 on p.329, he recalls the early suggestion of Mallon, who considered this sign to be the origin of *kap*.

<sup>152</sup> I am grateful to Prof. Steve Fassberg from the Department of Hebrew Language at the Hebrew University of Jerusalem for discussing the readings with me. All mistakes are, however, mine. As there are no written records of the Semitic dialect that was spoken in Canaan and Egypt during the Middle Bronze Age, all suggestions remain purely hypothetical.

<sup>153</sup> For *k-t-r* see *BDB*: 509b. The word means literally “the one who encircles.” In this case it may be a military title, or a title taken from the sphere of the nomads or shepherds.

<sup>154</sup> *ʿ-w-t-(i)* , *BDB*: 736b; ZADOK 1998: 32, n. 53, p. 142, 162–163, 441; NAVEH 1979: 186. Naveh relates the name to the Arabic root *ḡawf*, meaning “to help,” “to rescue.” The name surfaces in the written repertoire rather late.

<sup>155</sup> For *p-k* see *BDB*: 810a. *P-k* may also be a noun, “juglet,” and in this case it may refer to an offering. I thank Prof. Fassberg for this suggestion. Note the little space between *ʿ-w-t-(i)* and the following *p-k*. As no standardization or rules of writing yet existed, is it possible that the writer instinctively created a little space before the following word? There is also a little space between *p-k* and *ʿ-ł*.

<sup>156</sup> DARNELL *et al.* 2005: 88.

<sup>157</sup> “Horus, the Lord of the Foreign Lands, is behind him”. The combination *Hr-nb-h3swt* is rare (not mentioned in *LGG*). It may allude to a Horus which is dominant on Near Eastern seals and Canaanite scarabs of the Hyksos period (see discussion in Part I), and KEEL 1989a: 276–277.

<sup>158</sup> DARNELL *et al.* 2005: 91; HAMILTON 2006: 290 and *passim*.

<sup>159</sup> For the opposite opinion, see SATZINGER 2002.

should keep in mind, however, that Egyptian is very different from any other script. Hieroglyphic Egyptian (and to a certain extent good cursive hieroglyphs as well) is an “open,” friendly system, where the uninitiated beholder can identify iconically<sup>160</sup> (but not read!) many meaningful forms due to the high level of the iconicity of the script. The level of iconicity of hieratic is emphatically reduced, and very few signs can be identified iconically without a structured study and through knowledge of Egyptian.

## CONCLUSION

In this article, I have tried to substantiate, sign after sign, the suggestion that most of the prototypes for the graphemes of the Protosinaïtic script are to be found in the Middle Kingdom inscriptions in Sinai.<sup>161</sup> Secondly, I suggested that the graphemes that do not have hieroglyphic prototypes were probably created after prototypes in “the real world.” Some graphemes oscillate between hieroglyphic and concrete referents as models.

My working hypothesis was that the inventors of the script did not know how to read or write Egyptian, and were only acquainted with the pictorial level of the script. Accordingly, much of the systemic aspect of the Egyptian script was unavailable to them. They had no access to the monoconsonantal signs, which could otherwise have provided an elegant solution for their needs.

It is indeed unnecessary to turn to the hieratic script, or even to lapidary hieratic, in search of prototypes. It seems extremely unlikely that people of a low level of literacy would have had access to specific hieratic signs, would have known to recognize them, to isolate them, and to “translate” them back to the correct icon.<sup>162</sup>

Serabit el-Khâdim may have been a natural cultural site for the creation of the new script. A melt-

ing-pot, a place of a “plurality of cultural contexts,”<sup>163</sup> yet with its residents completely cut off from the outside world, Serabit el-Khâdim was “a world unto itself.” The workers in the mines stayed for long days and nights together in the isolated desert, secluded in their camps, and they may have not been in direct touch with the higher level Egyptian administration at the site. The Lady of Turquoise governed their life. When she wanted, they succeeded in their mission; when she turned her back on them, they failed. The difficult and dangerous work probably strengthened the feeling of personal piety among the workers who saw the Goddess as personally ruling their fate. The Egyptians nearby also prayed and gave tribute to the Goddess. But they also did something else: they *wrote*. Their *names* stood with her and by her in the temple for eternity. Their requests remained with her even when those who had made the requests were gone. We may imagine or postulate that during a visit to the temple, the inventors or their circles were shown some inscriptions which were of special meaning to them. Here was *Hbdd*, the brother of the *hq3 n Rtnw*, of whom they had heard so much. They were shown the names of his people on the stela (*Sinai* 92), and the name of the one from the “house of silver” (Fig. 18a, l. 4). And again, on the other side of the stela, more names of people they had heard of, and the name of their *Rêis* (Fig. 18b, l. 3–8). Did they try to understand, did they see “house signs” and were told that it meant “house”? Did they see the pictures of the *Rêis* with his lifted arms – indeed as they knew the *Rêis* when he shouted to gather his people? Would these very people, in one of their next visits to the temple, leave their small block statues behind?<sup>164</sup> Was it a special favor granted by the Egyptian administration to the *rb nqbnm*,<sup>165</sup> “chief of the miners”?

<sup>160</sup> Sometimes “wrongly” from the point of view of the Egyptian system.

<sup>161</sup> A similar suggestion was early put forward by GARDINER 1916, then enthusiastically by ULLMAN 1927, BUTIN 1936, and later by SASS 1988. Other Egyptologists after Gardiner suggested seeing hieratic as the source of the alphabet (e.g., ZAUZICH 2003), or Canaan as its place of birth. HAMILTON 2006 and DARNELL *et al.* 2005 believe in a “mixed” source – hieroglyphic and hieratic (including cursive hieroglyphs). However, detailed paleographic comparison to the Sinai Egyptian corpus was very limited.

<sup>162</sup> It seems that Hamilton is aware, at least to a certain

extent, of the problems of this reconstruction. In his final discussion he speaks of a few Semites that should have had “a fairly deep knowledge of the pre-existent Egyptian usages for the signs,” HAMILTON 2006: 294.

<sup>163</sup> Such a “plurality” provided according to Darnell a suitable setting for the invention of the script. See DARNELL *et al.* 2005: 91. See also above, p. 147.

<sup>164</sup> See SASS 1988.

<sup>165</sup> “*N<sup>c</sup>-m*, the chief of miners.” On the possible reading of *N<sup>c</sup>-m* as a personal name, see SASS 1988: 15, citing Albright. Was *N<sup>c</sup>-m* a *Rêis* or was he the chief of all workers? On the Egyptian private monuments in the temple, see VALBELLE and BONNET 1996: 154–159.

Was it the forlorn remote place, the pressure, the sudden acknowledgment of an option of “eternalizing the name,” of “contacting the gods” that led the Canaanites to this great invention? Did the unusual daily encounter of non-literate Semites with the product of the highest level of the Egyptian writing culture – the seductive pictorial hieroglyphic script – in hundreds of examples, in hundreds of repetitive pictures, in the middle of the desert, create the need and the urge to write? Was it the constant “writing to the gods in pictures” of the Egyptians that created a strong psychological pressure and a feeling of “we could also” among the Canaanites who worked in the mines? Did such a scenario finally lead to the invention of the alphabetic script?

However, before we can accept the date and the completely hypothetical reconstruction of the background of the invention, two major issues, lately put forward in detail by Sass should be dealt with. Sass correctly identified two crucial issues which he dubbed the “Dab<sup>c</sup>a absence” and “standstill.” The “Dab<sup>c</sup>a absence” questions the proposed date of the invention at the end of the 12<sup>th</sup> Dynasty in the light of the complete absence to date of any Protosinaïtic inscriptions in Tell el-Dab<sup>c</sup>a. If this is indeed the date, why was not any inscription found in Avaris, the capital of the Canaanites? The “standstill” question demands an explanation for the much delayed process of linearization or, as Sass puts it, “the very gradual loss . . . of the ‘Proto-Sinaïtic’ look and transition to linear shapes of letters.”<sup>166</sup> This process starts to be visible only around the 13<sup>th</sup>–12<sup>th</sup> centuries BCE. What kept this great invention at bay for a few hundred years? Why didn’t the Hyksos rulers adopt the “Canaanite script”?

The answer in my opinion is a cultural one. This “caravan-script” was born on the fringe of Canaanite society. The invention was not born in the milieu of the educated Canaanite-Egyptian scribes, but in that of the Canaanite miners and

caravan population, whose way of thinking was not “contaminated” by the rules of other writing systems known at the time. The people that invented the script belonged to the lower echelons of Egyptian and Canaanite societies. There was no power-holder or establishment that would have been interested in this “limited” and cumbersome-looking way of writing. The alphabet may indeed be the “better” system in the eyes of the modern Western beholder, but this is a very subjective view. As semiotic systems, the Egyptian system and the cuneiform system are both much richer, rewarding communication systems.<sup>167</sup> They present the reader with a great deal of extra meta-linguistic information, which is embedded in the complex structure of logograms and classifiers.<sup>168</sup> One is reminded of the remarks of the outstanding English Egyptologist Battiscombe Gunn, who was very well versed in Ancient Egyptian writings, in response to the courageous experiment of a scribe of the Late Period, in which the scribe attempted to write parts of an inscription in mono-consonantal signs: “... the complexity of normal Egyptian writing, with its determinatives and word-signs, its traditional differences in orthography for different words having the same consonants ... renders it much more easily readable than the single consonants in an unbroken succession (my italics) ... maybe it is now time to stop chiding the Egyptians for not ‘taking the step which seems to us so obvious’, and discarding all but their unilateral signs, availing themselves ... of the alphabet which they had already to hand.”<sup>169</sup> Gunn probably comes as close as one can get in our days to the point of view of an Ancient Near Eastern scribe. The new system surely seemed cumbersome and primitive, and no competition<sup>170</sup> for the “great” script systems of the Near East. The great invention did not go completely unnoticed. Some knowledgeable Ugaritic scribes did not hesitate to imitate the much simplified communication option, obviously grasping the

<sup>166</sup> SASS 2004/2005: 149.

<sup>167</sup> A great modern civilization, the Chinese civilization, piously keeps until today the extraordinarily rich non-alphabetic script, which incorporates thousands of signs.

<sup>168</sup> See GOLDWASSER 1995. On the psychological “seduction” of the pictorial script, see GOLDWASSER and LAOR 1991.

<sup>169</sup> GUNN 1943: 56.

<sup>170</sup> On the “competition” theory, see SASS 2004/2005: 155–156. Sanders does not believe in such a “compe-

tion,” stating: “The alphabet does not pose a challenge to his hegemony during its first 500 years. ... In this earliest phase, the alphabet is the quick and dirty tool of foreign workers, scrawled in desolate places: the mines, the gulch of terror. There is no high culture here. While it may have been used for low-budget scribal record-keeping, the alphabet’s first documented use boils down to the most basic and touching form of communication – ‘I was here.’” (SANDERS 2004: 44).



great advantages of the system. How they came to know about the script is hard to assess. However, while embracing the new option, they domesticated it completely into their cultural repertoire, and it surfaced on the stage of Late Bronze culture as a new “Ugaritic invention.” The Ugaritic domestication process robbed the script of one of its great advantages for the amateur writer, namely, the mnemonic connection between the “name” of the letter and the form of its grapheme. This connection was negligible for trained scribes, who probably were not too appreciative of the “primitive” (and maybe still very unstable) forms of the Protocanaanite graphemes. Nevertheless, it seems that the institutional Ancient Near East was not yet ready to give up its elite communication systems. The “Ugaritic experiment” died out when the Ugaritic civilization came to its end.

Regarding the Protosinaïtic script and its Protocanaanite successors as the “script of the caravans,” or, better, the “script of the poor,” easily explains its absence from monuments in Tell el-Dab<sup>a</sup>. The acculturated elite which lived in the “Capital of the Hyksos” was busy imitating the prestigious elite symbols, Egyptian and Near Eastern. Near Eastern and Minoan style gold finds, together with daggers and knives of luxury pro-

duction, illustrate the best Near Eastern tradition,<sup>171</sup> while wide-range usurpation of non-royal and royal Egyptian statuary show a real assimilation effort. It is needless to argue why this kind of society and its power-holders would show no interest in the “script of the poor.” Perhaps one day, on the back of a stela or of a statue, in Tell el-Dab<sup>a</sup> or in Tanis,<sup>172</sup> a Protosinaïtic scabbled graffito will be found.

However, Canaanite caravans, with workers, soldiers, and their families, continued to wander in Egypt and in Canaan, probably mainly in Southern Canaan during the Middle and Late Bronze Ages. The knowledge of the script continued to move in these very circles. No schools and no scribes were involved. People learned from each other the forms of the letters, in order to write their names, or to write the name of their god. Being amateurs, they kept the icons, as it helped them to remember the forms. In any event, no large scale writing was involved and no conditions for any cursive developments or standardization were created. All this would have to wait until the official establishments of the 9<sup>th</sup> century states adopted the “script of the poor” and made it the new official script of the Near East. With its adoption by the Greeks, it became the script of most Western civilizations.<sup>173</sup>

## References

### Graphemes of the Protosinaïtic Script

- No. 1 after HAMILTON 2006: 31, fig. 2.1
- No. 3 after *ibid.*: 68, fig. 2.18
- No. 4 after *ibid.*: 78, fig. 2.20
- No. 5 after *ibid.*: 88, fig. 2.23
- No. 7 after *ibid.*: 58, fig. 2.13
- No. 8 after SASS 1988: 183, table 4 (y/379)
- No. 9 after HAMILTON 2006: 118, fig. 2.33
- No. 10 after *ibid.*: 128, fig. 2.35
- No. 11 after *ibid.*: 139, fig. 2.40
- No. 12 after *ibid.*: 163, fig. 2.48; 164, fig. 2.50
- No. 13 after *ibid.*: 182, fig. 2.55

- No. 14 after *ibid.*: 190, fig. 2.59
- No. 16 after *ibid.*: 213, fig. 2.66
- No. 17 after SASS 1988: 183, table 4 (r/357)
- No. 19 after HAMILTON 2006: 233, fig. 2.71

### The missing link – the case of *bet*

- l. 1 after HAMILTON 2006: 40, fig. 2.4
- l. 2 after *ibid.*: 41, fig. 2.5
- l. 3 after *ibid.*: 41, fig. 2.5
- l. 4 after *ibid.*: 41, fig. 2.6
- l. 5 after *ibid.*: 48, fig. 2.9

<sup>171</sup> E.g., BIETAK and HEIN 1994: 97–98 (dagger), 211–213 (golden dog pendant).

<sup>172</sup> Most of the stone monuments of Avaris were moved to Pi-Ramesses and then to Tanis. HABACHI 1954: 458–470;

HABACHI 2001: 115, 118; VAN SETERS 1966: 126–137, YOY-OTTE 1971–1972: 172–173; BIETAK 1975: 213–214, 219.

<sup>173</sup> For an overview of the history of the alphabet, see NAVEH 1997.

EGYPTIAN HIEROGLYPHS FROM SINAI

PROTOSINAITIC

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Table The letters of the Proto-sinaitic alphabet and their presumed correspondents from Middle Kingdom hieroglyphic inscriptions in Sinai (mainly from Wadi Maghârah and Rod el-ʿAir) (The given numbers refer to the Sinaitic corpus. All Proto-sinaitic signs have been reproduced after SASS 1988: 183, table 4, except those with preceding "H," which follow HAMILTON 2006. The hieroglyphic signs have been taken from *Sinai I*)  
 I am grateful to Nicola Math for her help in creating this table as well as her assistance with the other figures

## References for the Table

Protosinaitic							Egyptian Hieroglyphs						
1	A 349	B 353	C 377	D H362			a 89	b 53, l. 5	c 166, l. 1	d 142, s. e., col. 2	e 500		
2	A 345	B 346	C 348	D H353	E H352	F H367	a 28, col. 1	b 32, l. 5	c 92, w. f., l. 8				
3	A 346	B 352	C 357	D 376			a 54, l. 7	b 53, l. 14	c 90, l. 18				
4	A 348	B 353	C 345	D 354	E 379		a 24a, l. 2	b 24a, l. 3	c 35, col. 9	d 53, l. 9			
5	A 351	B 376					a 27, col. 8	b 23, l. 2	c 35, l. 1	d 27, col. 3	e 92, s. e., l. 1	f 517	
6	A 346	B 363	C 360				a 522	b 523	c 517				
7	A 349	B 365b	C 353				a 35, col. 2	b 35, col. 4	c 106, s. e., l. 2				
8	A 346	B 379					a 23, l. 2	b 142, n. e., col. 4					
9	A H349												
10	A 346	B 353	C 363	D 345	E 348	F 376	a 35, l. 2	b 35, col. 6	c 35, col. 6	d 23, l. 3	e 106, s. e., l. 3		
11	A 345	B 346	C 353	D 359			a 27, col. 4	b 23, col. 7	c 23, l. 2				
12	A 357	B 352	C 346	D 361	E 365a		a 35, l. 1	b 27, col. 2	c 30, col. 1	d 523			
13	A 352	B 353	C 358	D 346	E 345		a 23, l. 5	b 23, l. 4	c 43	d 54, l. 10	e 165, l. x+7	f 56, l. 1	
14	A 353	B 357	C 375	D 355			a 23, col. 3	b 90, tab., col. 9	c 89, r. s.	d 516	e 516		
15	A 352	B H352	C 356	D H352			a 27, col. 3	b 33, col. 6	c 30, col. 1	d 30, col. 4	e 56, col. 1		
16	A 346	B 349	C 350	D 351	E 380								
17	A 357	B 352	C H349	D 376	E 364		a 53, l. 1; 53, l. 3; 53, l. 6						
18	A 357						a 35, l. 2	b 33, l. 2					
19	A 348	B 349	C 365a	D 360			a 23, l. 3						
20	A 346	B 357					a 514						
21	A 361	B 380			AA H362	BB 375a	a 35, l. 2	b 27, col. 2			aa 53, l. 1	bb 501	

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